

A SYSTEMS ANALYSIS AND DESIGN READER

by

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TABLE OF CONTENTS

Dedication	5
Preface	6
Book Reviews	
Book Review 1	
• Information Systems.....	9
Book Review 2	
• Roles of Systems Analysts.....	10
Book Review 3	
• Systems Development Life Cycle.....	12
Book Review 4	
• Roles of Systems Analysts.....	17
Book Review 5	
• Organization as Systems.....	19
Book Review 6	
• Organizational Cultures.....	21
Book Review 7	
• Using Data Flow Diagrams.....	23
Book Review 8	
• Prototyping.....	25
Book Review 9	
• Kinds of Prototyping.....	27
Book Review 10	
• Developing a Prototype.....	29
Book Review 11	
• Advantages and Disadvantages of Prototyping.....	31
Book Review 12	
• User's Role in Prototyping.....	33
Book Review 13	
• Rapid Application Development.....	34
Book Review 14	
• Comparing RAD to the SDLC.....	36
Case Studies	
Case Study 1	
• Paypal (Max Levchin).....	39
Case Study 2	
• Hotmail (Sabeer Bhatia).....	41
Case Study 3	
• Apple Computer (Steve Wozniak).....	43
Case Study 4	
• Excite (Joe Kraus).....	45

Case Study 5	
• Software Arts (Dan Bricklin).....	47
Case Study 6	
• Lotus Development (Mitchell Kapor).....	49
Case Study 7	
• Iris Associates, Groove Networks (Ray Ozzie).....	51
Case Study 8	
• Pyra Labs- Blogger.com (Evan Williams).....	53
Case Study 9	
• Yahoo (Tim Brady).....	55
Case Study 10	
• Research in Motion (Mike Lazaridis).....	57
Case Study 11	
• Marimba (Arthur van Hoff).....	59
Case Study 12	
• Gmail (Paul Bucheit).....	61
Case Study 13	
• WebTV (Steve Perlman).....	63
Case Study 14	
• TiVo (Mike Ramsay).....	65
Case Study 15	
• Viaweb (Paul Graham).....	67
Case Study 16	
• del.icio.us (Joshua Schachter).....	69
Case Study 17	
• ONElist, Bloglines (Mark Fletcher).....	71.
Case Study 18	
• craigslist (Craig Newmark).....	73
Case Study 19	
• Flickr (Caterina Fake).....	75
Case Study 20	
• WAIS, Internet Archive, Alexa Internet (Brewster Kahle).....	79
Case Study 21	
• Adobe Systems (Charles Getschke).....	82
Case Study 22	
• Open Systems, Hummer Winblad (Ann Winblad).....	84
Case Study 23	
• 37Signals (David Heinemeier Hansson).....	86
Case Study 24	
• ArsDigita (Philip Greenspun).....	88
Case Study 25	
• Fog Creek Software (Joel Spolsky).....	90
Case Study 26	

• TripAdvisor (Stephen Kaufer).....	92
Case Study 27	
• HOT or NOT (James Hong).....	94
Case Study 28	
• Tickle (James Currier).....	96
Case Study 29	
• Firefox (Blake Ross).....	98
Case Study 30	
• Six Apart (Mena Trott).....	100
Case Study 31	
• Bob Davis (Lycos).....	102
Case Study 32	
• Ron Gruner (Alliant Computer Systems, shareholder.com).....	104
Use Cases	
Use Case 1	
• Enroll at CSB.....	107
Use Case 2	
• Get Brgy. Clearance.....	110
Use Case 3	
• Get epurse.....	113
Use Case 4	
• Apply with Civil Service.....	115
Use Case 5	
• Get Student Driver’s Permit.	119
Use Case 6	
• Get Tin Number.....	122
Use Case 7	
• Get Smart Money.....	125
Use Case 8	
• Post to Blog with Multiply.....	128
Use Case 9	
• Edit Profile with Linkedin.....	134
Use Case 10	
• Twitter.com.....	140
Use Case 11	
• Post from Twitter at Friendfeed.....	143
Use Case 12	
• Subscribe to Emerald.....	146
Use Case 13	
• Upload to Slideshare.net.....	149
Appendices	
Appendix 1.....	152
Appendix 2.....	153

Appendix 3.....186

DEDICATION:

I would like to dedicate this book to my ever supportive grandmother who, despite lack of money still gives to me just to be able to pass my requirements. Without her, this book would have not been possible.

Moreover, I would also like to dedicate this book to my friends – PANSTERS- the people whom I work with while doing this book. Because of you guys, I was motivated to pursue working on this book. Special thanks to all of you: Jecca Cervero, Marjorie Buce, Marie Lourdes Capilitan, Anna Nebres, Maria Louise Lim, Jennifer Angiwot, Dara Fucoy, Ying Ying Wu, Geanu Torres, and also you Mika Mates (though you're already at De La Salle-University).

I would also like to dedicate this to my family who were also very supportive. Though I'm already about to quit, you were still pushing me and keeping me on.

More so, I would like to dedicate this to my church mates especially to our pastor whom I saw concern after I collapsed last August 15 at the LRT due to lack of sleep in finishing our Systems Analysis and Design paper . I'm so thankful that you were all concerned with what happened to me.

In addition, I would also like to dedicate this to those people who helped me at the LRT. Though I didn't have the opportunity to see you, I would still like to thank you in this book for helping me.

To my former classmates in high school, this book is also dedicated to you. I was shaped into what I become now and you're all part of that. Poorjuans, I miss you already guys. I just hope that we'll soon see each other again.

To my Systems Analysis and Design professor, Mr. Paul Pajo, this is also dedicated to you. Though you have given us a lot of paper works, I am still thankful because you thought me personally that things would be easily accomplished if you avoid mañaña habit and you have balanced your time wisely. It was really very hard for us because we also had other requirements to pass to other subjects. But then, I learned to be very responsible. Because of the case studies I read, my thinking is now into proposing a system that could be a startup. And those use cases, my mind was really drained because I was like analyzing and picturing every details of the system. But through that, I was like already working as an analyst. Thanks sir!

Most especially, I would like to dedicate this book to our Lord Jesus Christ. Without HIM, I knew that I won't be able to create this book. It was HIM who gave me the wisdom and the strength to work on the requirements given to us by our professor. It was HIM who supported me and guided me in everything. It was HIM who provided for my financial needs-just like what a venture capitalist does to startups. Thanks be to God for creating me and letting me study in this prestigious school De La Salle-College of Saint Benilde, which keeps on molding me into a great person.

Thanks be to God!

PREFACE

Systems Analysis and Design, if I am to describe to my fellow students taking up Information Systems, is something that would let you keep on thinking and thinking through analysis of systems, case studies, and partly organizations. It's analysis in a sense that you work at every details of what you're studying. And surely, your mind will be drained up.

In this book, I was able to compile all of the requirements I passed to my SYSANAL professor at De La Salle-College of Saint Benilde. The compilation I had includes the stuffs I did like reviews of the book Systems Analysis and Design by Kenneth Kendall and Julie Kendall. I was also able to include the case studies I made with the book Founders at Work by Jessica Livingston. I was also able to put inside the use cases I made with the processes of different systems I personally went through. Inside also is the final paper we had which is called SAD paper- a study on the system of a certain company which, in our case, is Extra Ordinaire Janitorial and Manpower Services. In the case studies, I got to determine who were the founders and cofounders of the different startups. I got to know how did they started and what their motivation was. I was also able to determine if the startup was an improvement of something that already existed before or if it was something entirely new.

Through the integrative questions, I learned many things from startups like the need for perseverance in doing what you wanted even though there's a lot of constraints put on you. I also learned that constraints would lead you also to success because that's the time you become creative and resourceful just to have your idea done. Moreover, I learned that you need to be open to crazy ideas when doing startups. When working with a cofounder, you have to find someone whom you share similar values with. More so, I learned not only about the side of these great founders interviewed by Jessica Livingston, but also about the different venture capitalists.

Use cases I did were more complicated for me because I had to go through the process before I could depict the different scenarios or the flow of events. But then, this is the activity that I enjoyed a lot. Through this, I got to learn crazy ideas just like what I wrote as an error sequence in our SAD paper. The use case was submitting proposal done by the area manager in the existing system. There, I wrote as an error sequence the robbing of the area manager because if in case that happens, he can't go on and submit the proposal to their prospective client. Therefore, use case fails. I don't really know if that's right but it was so cute for me to include that.

The final paper we did was something that I really would still want to create because it's like we're doing hands-on of our course. Through this paper, we learned to be very inquisitive just to know every details of the system were analyzing. It was just a sad

part on me that my group was not able to have a proper defense due to the lack of time of our panelist.

I just hope that the readers of this book would appreciate what I did. It was my first time to create a book like this and I hope that there's more to come. I hope that if I would post my work in the Internet, people would read it and would see it as something useful like when they have projects or assignments. I also hope that through this book, I would be inspired to create another one and I would make sure that it would be better.

Book Reviews

Systems Analysis And Design/ Book Review 1

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: One

Quote: “Information System is a generic reference to any computer based system.”

Review:

Information Systems

Information System is a generic reference to any computer based system which is a combination of hardware, procedures, software, people, and data that provides information and data processing. It is developed for different purposes depending on the business' needs and fall into one of the following categories: (A) Transaction Processing Systems (TPS) developed to produce larger volumes of data for routine business transactions; (B) Office Automation Systems (OAS) which manipulate information before sharing it throughout the organization. With it is the Knowledge Work Systems (KWS) which help professional workers to develop new knowledge and allow it to contribute it to their organization; (C) Management Information Systems (MIS), which are computerized information system that support a broader range of organizational tasks than Transaction Processing Systems; (D) Decision Support Systems (DSS) which belong to the higher level class, emphasizes the support in decision making in all its phases; (E) Artificial Intelligence (AI) which avenues of research fall on understanding with natural language and analyzing the ability to reason. With it is Expert Systems that belongs to a very special class of IS that use the approaches of AI reasoning to solve problems put to them; (F) Group Decision Support Systems (GDSS) which allow group members to interact and help to facilitate group problem solving; (G) Computer Supported Collaborative Work (CSCW) meanwhile is the more general term which includes “groupware” for team collaboration via networked computers; and (H) Executive Support Systems (ESS) which

Systems Analysis And Design/ Book Review 1

help executives organize their interactions with the external environment and make strategies.

Systems Analysis And Design/ Book Review 2

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No. : QA 76.9 S88 K45 2002

Chapter: One

Quote: "...a systems analyst must also possess certain qualities such as being a problem solver."

Review:

ROLES OF THE SYSTEMS ANALYST

Systems analysis and design is a systematic approach to identifying problems, opportunities, and objectives to analyzing the information flows in organizations and to designing computerized information systems to solve a problem. The person involve here is the systems analyst who has three primary roles: (1) an outside consultant to business, (2) supporting expert within a business, and (3) agent of change in both external and internal situations.

As a systems consultant, the systems analyst is to address information systems issues within a business relying heavily on the information users to know the organizational culture and create the best information system for the particular business.

Meanwhile, as a supporting expert, the analyst serves as the human resource for those managing the project drawing on professional expertise about computer hardware and software's users in the business.

Lastly, as an agent of change, an analyst must interact with the users and management, and perform any of the activities in the systems development life cycle using the information systems to gasp an understanding about the things happening in an

Systems Analysis And Design/ Book Review 2

organization. Being an agent of change needs to be serving as a catalyst for change, developing a plan for change, and working with others in facilitating that change.

Aside from having those roles, a systems analyst must also possess certain qualities such as being a problem solver who enjoys the challenge of analyzing a problem and devising a workable solution; and being a good communicator capable of relating meaningfully to different kinds of people. Moreover, a systems analyst must also be self disciplined and self motivated.

Systems Analysis And Design/ Book Review 3

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No: QA 76.9 S88 K45 2002

Chapter: One

Quote: "You can't just punch in 'let there be light' without writing the code underlying the user interface functions."

Review:

THE SYSTEMS DEVELOPMENT LIFE CYCLE

Systems Development Life Cycle, also called SDLC, is a phased approach to Systems Analysis and Design that holds that systems are best developed through the use of a specific cycle of analyst and user activities. It is, in short, a systematic approach to solving business problems. This life cycle is divided into seven sequential phases namely: (a) identifying problems, opportunities, and objectives; (b) determining information requirements; (c) analyzing systems needs; (d) designing the recommended system; (e) developing and documenting software; (f) testing and maintaining the system; and (g) implementing and evaluating the system.

Phase 1: Identifying Problems, Opportunities, and Objectives

This is the first phase of the SLDC wherein the analyst look honestly about what is happening in the business and pinpoints the problems together with other organizational members. This stage is so critical because it would affect the other phases of the system if the wrong problem was addressed. Opportunities meanwhile are the situations that can be improved using computerized information system that could help make a business competitive. Setting objectives to be met is also important to be able to know what problems or opportunities could be addressed, and to discover what the business is trying to do.

People involved:

1. analyst
2. systems management
3. user management

Activities in this phase:

1. interviewing the user management
2. summarizing the knowledge obtained
3. estimating the scope of the project
4. documenting the results

Output of the phase:

feasibility report containing the problem definition and the summary of the objectives

Phase 2: Determining Information Requirements

This second phase of the SDLC is where the analyst determines and understands what information users need to perform their jobs. This is where the WHO (people involved), WHAT (business activity), WHERE (environment where the work takes place), WHEN (timing), HOW (how the current procedures are performed), and WHY (reason for using) of the current system are studied. Tools such as interviewing management and operations personnel, gathering systems or operating documents, using questionnaires, and observing requirements in the business are used to define the requirements.

Personnel involved:

1. analyst
2. user management
3. user operations

4. system management

Phase 3: Analyzing System Needs

The next phase of the SDLC is analyzing systems needs wherein special tools and techniques are used. One tool that analyst uses is the creation of data flow diagrams, to put in a structure graphical form the IPO (Input, Processes, Output) of the business's functions. Another thing is the analysis of the structured decisions to determine the conditions, condition alternatives, actions, and action rules made. This includes the three major methods like the structured English, decision tables, and decision trees. Next is making semi structured decisions wherein the analyst examines decisions based on the degree of decision- making skill required, degree of problem complexity, and the number of criteria considered when the decision is made. Then, a systems proposal, which includes the summary of what has been found, provision of the cost/ benefit analyses of alternatives, and recommendations for the optimal solution to management, is presented and prepared.

Phase 4: Designing the Recommended System

This design phase of the SDLC is where the systems analyst uses the gathered information to create the logical design of the information system. The interface, which connects the user with the system, is devised so that accurate data- entry procedures make sure that data going into the information system are correct. Moreover, effective input is also provided through the use of good form and screen design techniques. Files or databases that will be a basis for all information systems are designed to provide the data needed by the decision makers. Lastly, controls and backup procedures are designed to protect the system and the data, and to produce program specification packets that will be used by programmers. Including these is the production of decision trees or tables.

Phase 5: Developing and Documenting Software

In this phase, the analyst works with two people- the programmer and the user. The analyst works with programmers to develop any original software needed wherein structured techniques to design and document it are used. These include the structure charts, Nassi- Schneiderman charts, and pseudocodes. The analyst also works with the users to develop effective documentation for software with help files, procedure manuals, and websites like FAQ (Frequently Asked Questions). Programmers have a key role in this phase because they are the ones who design, code, and remove syntactical errors from computer programs. A programmer may also conduct either a code or design walkthrough to explain complex portions of the program to a team of other programmers, and to ensure quality.

Phase 6: Testing and Maintaining the System

This is where the information system is tested first before handing it over to the users. Maintenance, meanwhile, which begins in this phase, is actually carried out routinely throughout the life of the information system. Much of the programmers' routine work is focused on this and businesses spend a great deal on it.

Phase 7: Implementing and Evaluating the System

This phase involves training users to handle the system. Here, the analyst plans for a smooth conversion from the old system to the new one by converting files from old formats to new ones, or building a database, installing equipment, and bringing the new system into production. Evaluations shown mostly for the sake of discussion and actually takes place during every phase wherein there is a key criterion that must be satisfied.

The Impact of Maintenance

Maintenance is performed after the installment for two reasons: to correct software errors and to enhance the software's capabilities in response to changing organizational

needs. Some researchers estimate that the amount of time spent on system maintenance may be as much as 60 percent of the total time spent on system projects. In enhancing the software's capabilities, one of the following three situations is generally involved:

1. Users often request additional features after they become familiar with the computer system and its capabilities.
2. The business changes over time.
3. Hardware and software are changing at an accelerated pace.

In conclusion, maintenance is an ongoing process over the lifecycle of an information system. It usually takes the form of correcting previously undetected bugs and updating the system with few minor enhancements. But as business and technology change as time goes on, effort on it increases dramatically.

Systems Analysis And Design/ Book Review 4

Book: Systems Analysis and Design Fifth Edition

Reference No: QA 76.9 S88 K45 2002

Authors: Kenneth Kendall

Julie Kendall

Quote: “Members of the subsystems need to realize that their works are interrelated.

Neither subsystem can properly accomplish its goals without the other.”

Review:

ORGANIZATIONS AS SYSTEMS

Organization is a complex system with many departments and business units (subsystems) which are linked by people working together. The subsystems composed of smaller interrelated systems serve specialized functions which include accounting, marketing, production, data processing, and management.

One quality of all systems and subsystems is that they are interrelated and interdependent wherein if one element of a system is changed or eliminated, the rest of the system's elements and subsystems are also impacted.

All systems process inputs (whatever it takes from its environment) into outputs which are actually returned to its environment to fulfill its purpose. Processes include verifying, updating, and printing.

Another aspect of organization as systems is that there is a line that marks the inside and the outside of the system and which sets off the system from the environment. This line is what we call boundary.

The conceptual boundary includes or considers all components of the system that provides input to the system and that which is influenced by the output for the system.

Meanwhile, a system is controlled in the form of feedback wherein all organizations use planning and controlling to manage resources effectively. The ideal system, however, is

one that self- corrects or self regulates in such a way that decisions on typical occurrences are not required.

Anything external to an organization's boundaries is considered to be an environment. This is where inputs are taken and outputs are returned. Among these environments are the environment of the community, the economic environment, and the political environment. Systems are also said to have the concept of internal openness and closedness. Openness refers to the free flow of information within the organization wherein ideas flow from the outside of the boundary while closedness is characterized by many limitations and with numerous rules. Open systems must interact with the environment to survive, closed systems need not.

Virtual components possessed by the entire organization or units of it permit adaptation to changing project or marketplace demands. Enterprises like this use networks of computer and communication technology to bring specialized works in remote areas together electronically to work on projects. The use of virtual components help reduce cost of physical facilities, more rapid response to customer needs, and helping virtual employees fulfill their familial obligation to children or aging parents.

It is important actually for systems analysts to take a systems perspective to broadly clarify and understands the businesses they would encounter. It is also important that not only them but also the members of the subsystems realize that their works are interrelated, meaning, neither subsystem can properly accomplish its goals without the other. And for those employees who are promoted to a higher rank, it is important that they know that overemphasizing their prior functional information requirements can create danger in all sorts of businesses.

New technologies are also being integrated into traditional systems and an enterprise resource planning system or ERP is one example of an integrated organization wherein its goals is to integrate different information systems within the corporation. But it should be understand that implementing it may be frustrating because it is difficult to analyze a system currently in use and fit the ERP model to that system. Analysts, then, need to be aware of the magnitude of the problem they are tackling when trying to implement ERP packages.

Book: Systems Analysis and Design Third Edition

Reference No: QA 76.9 S88 K45 1995

Chapter: Two

Quote: “Each of the three management levels holds different implications for developing management information systems.”

Review:

LEVELS OF MANAGEMENT

Management in Organizations is divided into three levels; operational control, (2) managerial planning and control and (3) strategic management each level carries its own responsibilities to achieve organizational goals and objectives.

Operations management, also called operational control, is located at the very bottom of the three leveled pyramid of the organizational management. This level, while it is at the very bottom, carries out the most work made by the operations manager. Operation managers are those needing high degree of certainty in decision making scheduling, inventory control shipping, receiving, and control of processes such as production. They are the ones who monitor the operating details of the organization to ensure that the basic tasks are accomplished on time.

Middle management, carried out by the middle managers, is located at the second or intermediate level of the three leveled management system. Activities such as short term planning and control decisions of resources allocation are done by middle managers where they would meddle on very little certainty in their decision making environment. Their Decisions range from forecasting future resource requirements to solving employee problems. Their decision making is basically characterized as partly-operational and partly strategic.

Strategic management meanwhile composes the third level and the most crucial part of the management system wherein strategic managers’ decision would involve long-term goals. Managers involved here look onward from the organization to the future and guide middle and operational managers. They work in a highly uncertain decision-making

environment defining the organization as a whole and looking at the broader picture. They are also faced with semi-structured problems unlike those at the lower level. While operations manager tend to be mainly analytic, strategic managers toward the heuristic.

Each of the three management levels holds different implications for developing management information systems. Operations manager require internal information that is of a low-level nature and that captures current performance. Information systems are designed for them to have value if they can provide information to help in controlling operations. On the other hand, middle managers need information highly in their troubleshooting nature of job. They have a higher need for historical information than the operations manager. Lastly, strategic managers are highly dependent on external sources information. They have a high need for information of a predictive nature and information tat allows creation of many different “what-if scenarios. They also need general, summarized information rather than highly detailed, raw data required by low-level managers.

Systems Analysis And Design/ Book Review 6

Book: Systems Analysis and Design Sixth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2005

Quote: "Subcultures coexist within "official" organizational culture."

Review:

ORGANIZATIONAL CULTURE

Organizational Culture is an established area of research that exists within the organization or the so called internal organization. Organizations, meanwhile, are appropriately viewed as hosts to multiple and often competing subcultures. Organizational culture and subcultures are important determinants of how people use information and information systems. By grounding information system in the context of the organization as a larger system, it is possible to realize that numerous factors are important and should be taken into account when ascertaining information requirements and designing and implementing the information system.

The researchable determinants of subcultures are shared verbal and nonverbal symbolism. Verbal symbolism includes shared language used to construct, convey, and preserve subcultural myths, metaphors, visions, and humor. Nonverbal symbolism, meanwhile, includes shared artifacts, rites, ceremonies; clothing of decision makers and workers; the use, placement, and decoration of offices; and rituals for celebrating members birthdays, promotions, and retirements.

Subcultures coexist within the official organizational cultures and some of the officially sanctioned culture may prescribe a dress code, suitable ways to address supervisors and coworkers, and proper ways to deal with the outside public.

Organizational members may belong to one or more subcultures in the organization and the subcultures where they belong may exert a powerful influence on their behavior.

It would be very helpful for a systems analyst to understand and recognize predominant organizational subcultures to easily adapt to changes arising when new information systems are installed. Identifying subcultures may also help in the design of decision support system made for interaction with specific user groups.

BOOK: Systems Analysis and Design Sixth Edition

AUTHORS: Kenneth Kendall

Julie Kendall

REFERENCE NO.: QA 76.9 S88 K45 2005

CHAPTER: Seven

QUOTE:

REVIEW:


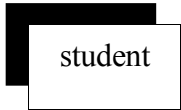
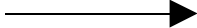
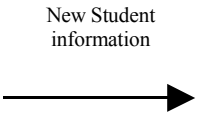
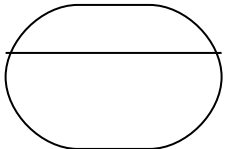

USING DATA FLOW DIAGRAMS

Data Flow Diagram (DFD) is defined as structured analysis technique used to put together a graphical representation of data processes throughout the organization. This will help a systems analyst in attempting to understand the information requirements of users by conceptualizing how data move through the organization, the processes that the data undergo, and what the outputs are.

The data approach has four major advantages such as:

1. Freedom from committing to the technical implementation of the system too early.
2. Further understanding of the interrelatedness of system and subsystems.
3. Committing current systems knowledge to users through data flow diagrams.
4. Analysis of a proposed system to determine if the necessary data and processes have been defined.

There are four basic symbols used to chart data movement in data flow diagrams and these are listed in the table below.

NAME	SYMBOL	MEANING	EXAMPLE
1. double square		Entity	
2. an arrow		Data flow	
3. rectangle with rounded corners		Process	

Systems Analysis And Design/ Book Review 7



Double Square is used to depict an external entity that can send data to or receive data from the system. This entity is also called source or destination of data, is considered an outside boundary of the system. Each entity is labeled with an appropriate name, and should be named with a noun. It could be used more than once on a given data flow diagram.

The arrow shows movement of data from one point to another, with the head of the arrow pointing toward the data's destination. It should also be described with a noun since it represents data about a person, place, or thing.

The third symbol, a rectangle with rounded corners, is used to show the occurrence of a transforming process. It is always labeled differently than the one entering it. It represents work being performed in the system and should be named using one of the following formats.

1. Assign the name of the whole system when naming a high-level process.

Ex.:

INVENTORY CONTROL SYSTEM

2. To name a major subsystem

Ex.:

INVENTORY REPORTING SUBSYSTEM

INTERNET CUSTOMER FULFILLMENT SYSTEM

3. Use a verb-adjective-noun format for detailed process.

- a. Verb describes the type of activity.

Ex.: COMPUTE

VERIFY

- b. Noun indicates the major outcome of the process.

Ex.: REPORT

RECORD

- c. Adjective illustrates which specific output.

Ex.: COMPUTE SALES TAX

PREPARE SHIPPING INVOICE

A process must also be given a unique identifying number indicating its level in the diagram.

The last basic symbol is the open-ended rectangle which represents a data store. A data store symbol is used to simply show a depository for data that allows examination, addition, and retrieval of data. And because it also represents a person, place, or thing, it is named with a noun and a unique reference number such as D1, D2, D3, and so on, to identify its level.

Systems Analysis And Design/ Book Review 8

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: Eight

Quote: "...effective prototyping should come early in the systems development life cycle, during the requirements determination phase."

Review:

PROTOTYPING

Prototyping is a technique used by systems analysts to gather with fastness the information about the requirements of users. To be effective, it should be done before determining the requirements needed in the Systems Development Life Cycle (SDLC). But then, knowledge of the entire systems development life cycle is required to have this done.

This technique needs seeking of four kinds of information: (1) initial user reactions, (2) user suggestions, (3) possible innovations, and (4) revision plans.

Initial User Reactions. When presenting a prototype of the information system, a systems analyst must be interested with how users and management would react to the prototype to know if the prototyped features of the system respond to what the users need. And these reactions are gathered through different ways like observation, interviews and feedback sheets often in the form of questionnaires. It is very important to have this kind of information because this would determine the personal opinions of the users as they interact with it.

User suggestions. Suggestions, which are the product of user's interaction with the prototype for a specific period of time, is needed to be sought because this would direct the analyst towards way of cleaning up the prototype to fit user's needs.

Innovations. This is the kind information needed to determine the new system capabilities of the prototyped system that has not been thought of prior to user's interaction with it. These new features could be part of the finished system if successfully added.

Revision plans. This feature lets prototyping and planning to go hand in hand by helping identify priorities for the next thing to be prototyped and allowing the analyst to redirect plans cheaply, with less disruption.

Book: Systems Analysis and Design Fifth Edition

Author: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: Eight

Quote: “The word prototype is used in many different ways.”

Review:

KINDS OF PROTOTYPES

There are several conceptions of prototyping that can't be put into one definition and can only be illustrated through different examples. Basically, these are four approaches to prototyping.

Patched-Up Prototype. This has something to do with the construction of a system that works and has all the necessary features but is patched up and is inefficient, though, users could still interact with it. It's a basic model with all the proposed features that will eventually be enhanced. An example of this is a dress that has all the features like sleeves, collars, buttons, zippers and belts but is not yet sewn and just pinned. This could be used but needs necessary carefulness to able to wear it.

Non operational Prototype. This is a non-working scale model set up to test certain aspects of the design. It's like a full-scale model of an automobile with precise size and shape of auto but is not operational or can't be used. Its features are only essential to testing wind tunnel. One reason for this is the undue cost and time required to code the useful idea of the system.

First-of-a-series Prototype. This is the first full-scale model of a system that is completely operational and will be a series of design with identical features. This allows user to realistically interact with it while minimizing the many problems it would present. With this prototyping conception, full-scale prototype is first installed in one or two locations and then duplicates follow most likely to all locations just like in banking installation for electronic for electronic funds transfer.

Selected Features Prototype. The last conception, which is an operational model just includes some of, but not all of, the features of the final system. It just previews possibilities of future features. This kind of prototyping uses modules and the model can be incorporated into the larger, final system after the successful evaluation of the prototype.

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: Eight

Quote: "...prototyping is taken in the sense of the last definition that is a selected-feature prototype."

Review:

DEVELOPING A PROTOTYPE

There are certain factors that analysts need to determine whether a system is more or less suitable for prototyping.

Factors	Less Suitable for Prototyping	More Suitable for Prototyping
Similar Design Experience	Many times before	only a few times before
Environment	certain and stable	uncertain and unstable
Decision making	structured	unstructured or semi structured

Systems analyst needs to consider the kind of problem to be solved and the way the system would present the solution when deciding if prototyping could be included as a part of the SDCC.

Another thing is to evaluate the environmental context for the system. If the system is to exist in an environment stable for long periods, it is less suitable for prototyping; but if the environment changes rapidly, prototyping becomes more suitable and that's when it becomes evolutionary readily absorbing many revisions.

The first step of prototyping includes estimating the costs involved in building the module of the system because it would only be non-operational if the costs in building the prototype are not within the budget.

Guidelines for Developing a Prototype

Four main guidelines are needed to be observed when integrating prototyping into the requirements determination phase of the SDLC: (1) work in manageable modules, (2) build the prototype rapidly, (3) modify the prototype in successive interactions, and (4) stress the user interface.

Working in Manageable Modules. It is important that an analyst work in manageable modules when prototyping some of the features of the system to allow users to interact with its key features. If module features are not that important, they are left out of the initial Prototype.

Building the Prototype Rapidly. The success of prototyping could be pointed out to the speed of how it was worked on. Through this, users could easily evaluate the prototype for analyst's revision. It should take less than a week to put together or two or three days is preferable; and this could only be possible if special tools such as an existing database management system, as well as software will be used.

Modifying the Prototype. The third guideline in developing the prototype is that that its construction must support modifications by creating it in modules not highly interdependent to create less resistance and move the system closer to what users says is essential. It must also be done swiftly to keep the momentum of the project going.

Stressing the user Interface. User's interface with the prototype is very important and needs to be considered more by an analyst because it would allow users to easily interact with the system's prototype without needing trainings from the designer. Moreover, this would allow users to maximize its control over represented functions. If the interface of the prototype is not what users need or want, then, it is most likely a candidate for modification.

Systems Analysis And Design/ Book Review 11

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: Eight

Quote: “System being developed should be a better fit with users’ needs and expectations.”

Reviews:

ADVANTAGES AND DISADVANTAGES OF PROTOTYPING

Advantages of Prototyping

Prototyping has three major advantages which are interrelated: (1) Changing the System Early in its Development, (2) scrapping undesirable systems, and (3) designing a system for user’s needs and expectations.

Changing the System Early in its Development. Early and frequent user feedback helps create modifications of the system leading to the success of prototyping. If changes are made early in the project’s development, costs are lesser than when done later. But then, limited features and interfaces are needed to easily trace system problems.

Scrapping Undesirable Systems. In prototyping system that is not what users and analysts hoped for could be scrapped without having to risk more cost and time. It could only happen when the system is apparently of no use.

Developing a System for User’s Needs and Expectations. System that is to be developed should fit users needs and expectations. That is why it is better to practice interacting with them all throughout the SDLC. It is said that users who early take ownership of the information system work to ensure it success. If the evaluation of the prototype indicates well functioning of the system, then prototype should be kept going.

Disadvantages of Prototyping

Several disadvantages of prototyping such as the difficulty in managing prototyping as a project in a larger system and the possible adoption of an unfinished system should weight against the known advantages when prototyping.

Managing the Project. Problems would always be possible in the development of a prototype. That is why, certain management skills must be acquired by an analyst’s team. Moreover, a plan regarding the collection, analysis interpretation of user’s feedback must be carried out while setting up specific periods of time in the evaluation of it. In connection to that, feedbacks must be elicited periodically to ask if previous suggestions or improvements were satisfactorily acted upon.

Adopting an Incomplete System as Complete. It would always be possible that a certain system is badly needed and welcomed readily by users though its still in its unfinished state. There would be no more refinements making the prototype not perform all necessary functions. As a result, user backlash may develop.

Advantages to Prototyping	Disadvantages to Prototyping
Potential exists for changing the system early in its development	Difficult to manage prototyping as a project within a larger systems effort
Opportunity exists to stop development on a system that is not working	user and analyst may adopt a prototype as a completed system when it is inadequate
May address user needs and expectations more closely	

Systems Analysis And Design/ Book Review 12

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45

Chapter: Eight

Quote: “Systems analysts must remember to stress to users and management alike that prototyping is the most appropriate time for system changes.”

Review:

USER’S ROLE IN PROTOTYPING

One major role of users in prototyping is their honest involvement because without it, there is little reason to prototype. It must be realized that users are important to the success of the process.

These are three main ways a user can be of help in prototyping: (1) Experimenting with the product, (2) Giving open reactions to the prototype, and (3) Suggesting addition to or deletions from the prototype.

Experimenting with the Prototype. Users must be encouraged by the analysts to experiment freely with the prototype to allow them to experience the reality of hands-on interaction with the system. That is why, analysts must also be present at least part of the time users is experimenting to be able to observe and see interactions not in the Plan. Then, user reaction, user suggestions, innovations, and revision plans could be recorded properly to revise the prototype.

Giving open reactions to the Prototype. Analysts must also have a good relationship with its user to securely acquire open reactions to the prototype from him. The use of exclusive Web site set up for users and analysts is recommended.

Suggesting Changes to the Prototype. The third aspect of user’s role is willingness to suggest additions to or deletions from the user’s features of the system. Analysts must elicit those by observing users interact with the system, and conducting short, specific interviews with users about their experiences with the prototype. Feedbacks gathered should then be weighted and translated into workable changes.

Systems Analysis And Design/ Book Review 12

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45

Chapter: Eight

Quote: “RAD and prototyping are close to each other and both have the goal of shortening time needed between the design and implementation of the information system.”

Review:

RAPID APPLICATION DEVELOPMENT

An object-oriented approach to systems development that includes method of development as well as software tools is called Rapid Application Development (RAD). RAD and Prototyping are close to each other and both have the goal of shortening time needed between the design and implementation of the information system.

Phases of RAD:

RAD has basically three broad phases: (1) Requirements planning phase, (2) RAD Design Workshop, and (3) implementation. It should be understood that users have intense part in the development effort of RAD.

Requirements Planning Phase. In this phase, users and analysts meet to identify the objectives of the system and the information requirements from those objectives. This requires intense involvement from both groups and may involve users from different levels of the organization. This phase is more on solving business problems and reaching business goals.

RAD Design Workshop. This is a phase which is also called the design and refine phase likened to a workshop where intense participation is required. This is a typical setting wherein participants are seated at round tables with space to work on a notebook computer. An ideal setting would be a Group Decision Support System (GDSS) room where analysts and programmers can work to build and show visual representations of the design to users. This takes place over a series of days but extended blocks of time is said to

be useful. During this phase, users respond to actual working prototypes and analysts refine designed modules based on user responses.

Implementation Phase. After having agreed upon the aspects in the workshop and systems are built and refined, the new systems or part of systems are then tested and introduced to the organization without needing to run the old system and new system in parallel.

Systems Analysis And Design/ Book Review 14

Book: Systems Analysis and Design Fifth Edition

Authors: Kenneth Kendall

Julie Kendall

Reference No.: QA 76.9 S88 K45 2002

Chapter: Eight

Quote: "RAD should be considered when situation calls for it."

Review:

COMPARING RAD TO THE SDLC

The ultimate purpose of Rapid Application Development (RAD) is to shorten the Systems Development Life Cycle and respond more rapidly to dynamic information requirements of organization whereas SDLC is more on the methodical and systematic approach of developing a system ensuring completeness and accuracy with the intention to create well-integrated systems.

RAD Design Workshop is the departure from SDLC because it uses software tools to generate screens and exhibit overall flow of the running of application.

Implementation phase, meanwhile, helps to design the business aspects of the system which is less stressful.

SDLC is the opposite of RAD in a sense that there is lengthy time during development and design most especially when analysts are separated from users.

When to use RAD. RAD could be considered when (1) Your team includes programmers and analysts experienced with it, (2) there are pressing business reasons for speeding up the portion of an application development or, (3) when you are working with a novel ecommerce application and your development team believes that the business can sufficiently benefit over their competitors, and (4) when users are sophisticated and highly engaged with the organizational goals of the company.

How to use RAD with the SDLC. RAD should be considered when situation calls for it. But then, if it is used with the SDLC, you are taking advantage of two very powerful approaches.

Disadvantages of RAD. Just as prototyping has disadvantages, so as Rapid Applications Development and one is the idea of hurrying the project too much. Because RAD would be more on estimations, accuracy will not be acknowledged oftentimes leading to lesser quality system.

Case Studies

Max Levchin

PAYPAL

Three Things I learned:

After having read the details of the interview with the famous startup cofounder of PayPal named Max Levchin, I learned three things about startup.

First, I have learned that exploring, experimenting, and making innovations with things which already have uses would yield not only to a novel idea but to a very wonderful result. Just like what Levchin did when he was still College, he reverse engineered some cards which are authentication devices that are just like a one-time password generator and then made better every single type of them for another use which is the Palm Pilot. Though its really hard to be done, he still tried and that young and silly idea for him eventually paved way to thousands of downloads on the web with money offerings involved.

Next, I have learned not to give up quickly on something. Levchin, when faced with the fraud problem never quitted. Instead, he took it as one of his next challenge and then he started researching and figuring out what could be done to attack the problem. Problems really exist to everyone but I learned from him that it's always our attitudes that make a difference.

Lastly, I have learned that a successful startup needs to have a good cofounder. I've learned that even though you have the greatest idea but you are completely doing it alone without somebody to help you would be very hard. Having someone to go to in times of trouble is really nice but having that someone work with you is much better.

STORY:

PayPal is a web-based system founded in December 1998 by Max Levchin and Peter Thiel. This company started with the idea of just a security through cryptography software. But follow up questions run through as to what they can store inside the handheld device that is meaningful. It finally hit on the idea of storing money in handheld devices which led to a service for transmitting money via PDAs. As soon as they get funding, they started building the application for Palm Pilot and later built a demo for the website which surprisingly yielded to hundreds of downloads per day until they get a lot of publicity about it. It eventually went to the decision of killing the handheld product, and then moved on to the web-based payment system. The growth of the people trying to use the website for transactions was actually more impressive than the growth of the handheld devices. But just as any other systems, one serious system problem attacked them and that is the killing fraud. Levchin accepted it as a challenge and started on doing researches. He hired human investigators to unravel the large fraud case while he and the intern he hired for the merger built a system to help the investigators. Fortunately, a huge fraud reduction happened. They kept the package named Igor and never showed it to anyone. After sometime, some of it was patented while others were opened for wide use. It went public in early 2002 but was acquired later that year by eBay for \$1.5 billion.

Sabeer Bhatia

HOTMAIL

Three things I learned:

I also learned three things after reading the story of how an idea evolved into Hotmail, the first web-based email.

First, I learned that when you have an idea that could be big, think first before sharing it to others. It's because you might share it the wrong person, who, because of selfishness would steal it and claim it as his. It should be remembered most especially when it comes to business. It is just like what Sabeer Bhatia said, "Whoever built it first would win the market."

The second thing I learned is that in startups, you'll be faced with certain situations that would let you make critical decisions. Its just like when the founders were refused to be given higher valuation in the funding, they just switched on to the lower valuation offered for them to move on. If they didn't accept the offer, then that could be already their downfall because they can't go to other VCs since they're already turned down to them with their present VC.

Lastly, I learned that your background should not be a hindrance to your great idea. The founders in the story have different working backgrounds and were too young then. That is why every time they would go to a VC, they would be rejected or turned down. But, the two didn't mind them, instead, they pursued on going to other VCs until they had found one who gave them funding not because of the backgrounds of those who would work on it but because of the great idea they had that could be big.

STORY:

The idea of a web-based email called Hotmail started when coworkers Sabeer Bhatia and Jack Smith began trying to solve their personal email exchange problem for themselves. During that time, they were actually into something and that is the web-based personal database they called JavaSoft. But they knew that the email concept was even

Systems Analysis And Design/ Case Study 2

bigger than their original idea so they went full throttle with Hotmail. They didn't share this killer idea because they're afraid it would be copied or shared to Netscape which expertise is also on email matters. The funding problem led them to approaching VCs and after many thumbs down; they finally pitched Draper Fisher Jurvetson (DFJ) which liked the idea. The first major turning point for them was when they were given \$300,000 for the funding. Having DFJ stopped them from going to another VC because DFJ discourages those VCs to invest on them. After the funding on February 1996, the site finally launched a massive PR campaign through a PR firm and had this idea of putting tagline in the body of the email encouraging email recipients to set up their own free Hotmail accounts. They partnered with Rocketmail which specialty is more on directory. But after having found that email registration growth went from hundreds to thousands, they decided to do email which made them be Hotmail's first real competitor. They scrapped their partnership with Rocketmail and started talking with Microsoft, which was very interested then on how they manage 7 million subscribers. This led them to a partnership with Microsoft.

Steve Wozniak
APPLE COMPUTER

Story:

Apple Computer was founded in 1976 by Steve Wozniak and Steve Jobs. It all started with the dream of Steve Wozniak to have a computer someday, mixed with his huge dedication, a lot of motives to do it, and values. Back then, he was designing different types of computers during high school at home for fun. One remarkable design he did was the blue box which was designed for making free phone calls. And the other one was the video terminal he did while working at Hewlett- Packard. Steve Jobs was the one who always suggests him to sell his designs.

The idea of Apple I began with the first meeting of Homebrew Computer Club when he found out what a microprocessor was. He bought one that is very cheap and decided to build the hardware with the terminal he designed before. Then, he wrote a simple little program. After developing the whole Basic, he brought the computer every two weeks at the Homebrew Computer Club and showed it to people with Xeroxes of his schematics passed to them.

That was the time when Jobs suggested that they start a company when many people already wanted to build their own computer but don't know how to solder altogether chips. They thought of having a company that sells built-in PC Boards. Apple was launched on a rapid ascent when Jobs landed with a contract with the Byte Shop for 100 preassemble machines.

The next greatest design he did was the Apple II designed efficiently with very few parts and an added color. it was presented to the public at the first West Coast Computer Faire on April 16 and April 17, 1977. When Wozniak found out that games are easy to be written in Apple II and the games became software, the machine became open to other people who wanted to do anything on it like typing in programs on their own Apple II.

While Apple II became the largest selling computer in the world in the years 1980-83, they focused on to advertising Apple III which unfortunately never sold in that time frame. That is why by 1983, IBM PC took over and sold more computers than Apple

II.

Apple Computer went public in 1980 in the largest IPO. They improved Apple II which made it to be the machine that brought computers onto the desks of ordinary people. Apple's success was really because of its two great founders who really fit nicely in terms of their skills.

Three Things I Learned:

Apple Computer was really founded with a very powerful team whose abilities are very promising. And with how they come up to Apple was really extraordinary making me learn many things in doing startups.

First of all, I learned from Steve Wozniak that when you're into something and you don't have a lot of money, you have to learn to optimize things and design it with very few parts so as to be efficient in your work. If you work on something and you use every resources you have, but in the end that thing will just come up to nothing, then it's better for you to be resourceful by saving every parts that you can save. With every little detail of the product, there are lesser things to be thought of.

The second thing I learned is that in a startup, there will always be a need for sacrifice. Just like what Steve Wozniak and Steve Jobs did. They funded their company out of their own pockets by selling some of their properties.

And lastly, I learned that a good startup really needs well division of labor among its founders. I believe Apple came up to what it is right now because of the good founders who built it. The two never had a big argument onto something. Both of them had their responsibilities and one of them never claimed about it. Steve Wozniak focused on how to create products for Apple and Steve Jobs do the negotiation and advertising processes. They really fit together nicely in terms of their skills and that made the difference.

**Joe Kraus
Founder**

EXCITE

Story:

The company was started by Joe Kraus in 1993 with his five classmates in Stanford. After their graduation, three of them lived in one in Palo Alto and three of them lived in another. They set up shop in the garage of Joe's house wherein most of the things inside are stolen from Oracle Corp. like the small chairs and the VT100 terminals. They coded for around 18 months in the shop while doing some part time jobs for their living. Joe's job used to be doing a phone call with the people he read from the Wall Street Journal that are interested in search stuffs. In 1994, while deciding between two technologies for the interface, their focus turned on to the web thing wisely chosen by Graham Spencer, the considered man among the group. A book called Accidental Empires given to Joe by his girlfriend paved way for him to know Bob Cringely, who introduced them his bosses at InfoWorld. InfoWorld became interested with the search stuff they're doing so they were given a \$100, 000 contract with the condition of indexing archives and making them available on the web. There's also a deal that if they did a good job, they'd be introduced to InfoWorld's parent company IDG. It turned out that they did a good job making them have the opportunity to attend a board meeting with IDG. After dealing with the questions as to how they would make money with that search stuff, they were finally introduced to Vinod Khosla who ultimately funded the company along with Geoff. They figured out how to answer Vinod's question if their technology can scale until it did and they put together a \$3 million financing with Kleiner Perkins and Geoff Yang's firm.

Excite was launched in Oct. 1995 and after some time, Microsoft made its buyout offer to them in \$ 70 million. Excite didn't agree with the price and asked for a \$ 100 million instead which was turned down by Gates. They aimed to have more people trying Excite which led them to go to Netscape and bid for the two buttons NetSearch and NetDirectory. They lost in the bidding but luck struck which made them got the deal back and which helped launch the company. They eventually acquired an editorially oriented search engine company called Magellan, and the Web Crawler. After they went public,

Systems Analysis And Design/ Case Study 4

they ran out of money but they were saved by Intuit with a \$20 or \$ 30 million deal. In 1999, they merged with high- speed Internet service @ Home.com to become Excite@Home. And in 2004, Joe Kraus and Graham Spencer founded JotSpot.

THREE THINGS I LEARNED:

Excite was initially built out of friendship and that's one thing for me. I learned from this startup that there are advantages if you're working on something with your friends most especially if that is a very strong friendship. It's because if you are really friends, then greed will be out of nowhere. Greed would never be seen when it comes to the distribution of labor, there would be no comparisons among the group like when money is involved or when sacrifice is involved. With this business involving friendship, there would be only one thing and that is teamwork.

The next thing I learned is the virtue of persistence. In the story, the founders of Excite lose the bidding of Netscape which they joined. For others, it would be an easy giving up but Kraus learned from Vinod here that they should not easily give up because there would always be a possibility for them to won the deal back. And that's what happened; the winner didn't make it to deliver to Netscape the service on time providing them the chance to grab the slot offered by the latter company.

**Dan Bricklin
Cofounder**

SOFTWARE ARTS

Story:

Software Arts was founded by Dan Bricklin and Bob Frankston in 1979. It produced the first electronic spreadsheet named VisiCalc which became the “killer app” for personal computers.

Dan Bricklin and Bob Frankston met each other and became friends when they were still college. Bricklin worked at Multics Project and the first job given to him was to do some modifications and finish Bob’s thesis. They shared time together for a long time until they decided to indulge into the idea of running a business in computers. They started by funding on their own. They paid for MIT’s Multics System- the one they worked on. And they eventually borrowed some money from a bank and from relatives for their own computer. They then settled to a basement of one of their friends and started their business, which originally was started in Bob’s attic in Arlington, Mass.

After graduating from MIT, Bricklin went to Harvard Business School- where the idea for the spreadsheet came up. Here, he met Dan Fylstra, the publisher of Personal Software, and his partner Peter Jennings. When Bricklin started programming, Fylstra had graduated and was running business selling software on cassettes. The need of Fylstra for a new stuff like a checkbook program paved way for Bricklin to pursue on prototyping VisiCalc on one of Fylstra’s machines over one of the vacation weekends. But since he was already in school, Bob did the programming and they set about turning it into a product. They incorporated the business on Jan. 2, 1979 with Personal Software and had them sell the products. Personal Software was renamed then as VisiCorp. They eventually gave some private demos at Ben Rosen’s conference and West Coast Computer faire, and then showed it to public in June of 1979 at the National Computer Conference. MBA types, investment banker types, and many people in some other fields got what’s so special about their

Systems Analysis And Design/ Case Study 5

product driving them to get their personal computers which was something good for Apple II since it drove sales for them.

Software Arts further developed it by launching interesting features with it like the keystrokes in typesetting. VisiCalc paid royalties to Software Arts but VisiCorp and Software Arts had some legal disputes when the latter was sued for negotiating a deal with H & R Block to buy their company. But at the last minute, when the company was about to go down, Lotus bought them out which became their fall.

THREE THINGS I LEARNED:

Just like the Excite Company, I also learned from Software Arts the value of friendship. I learned that if you really like each other as friends and you have a strong relationship, you would be able to keep odd things and conflict from messing up the business. You'd always do stuffs and deals together and there is always unity.

Next, I learned that a lot of experiences that has something to do with the work you're involved with would really help you all the way to success. Bricklin was not satisfied just to learn from his professors about the things that he wanted to do and so he explored more and went to other schools to learn.

Second, I learned that you should stay out of lawsuits if you can help it because it would not always be settled through serious a serious and sincere talk with the one suing you. Things would not always go according to your way so you need to do things honestly. Simple things will turn out to be a very big thing that will distract you and your business.

Lastly, I learned that there are times that your competitor could also be your savior in times of trouble. Just like Software Arts when they were sued by VisiCorp. They were actually helped by Lotus by buying their company but consequences would follow like they losing the business you would want to continue.

Mitchell Kapor
Cofounder, Lotus Development

Story:

Lotus get started when Mitchell Kapor met Eric Rosenfeld at the Apple II user group, called New England Apple Tree, he cofounded. He was asked by Rosenfeld to help him write a statistics routine that ran on Apple II which could be used to analyze data in his dissertation. They realized that what they did could help other people and so they began to call it Tiny Troll. They met the authors of VisiCalc in one of the meetings of the Apple II user group and Kapor was introduced to their publisher- Dan Fylstra and Peter Jennings- who offered them to have Tiny Troll as a companion product to VisiCalc. Kapor decided and began to write and clean up Tiny Troll alone since his partner was already engaged to teaching in Harvard. Since he still wanted to make it better and it's almost done, he demanded the publisher to let him move out to California, where they were, and hire him as a product manager which they found fine. Tiny Troll was eventually changed to the name VisiPlot. Personal Software began bringing in more management which made him be moved aside since he has not yet finished his product for about 6 months of his stay in California. He moved back to Boston and finally finished it after another six months. It was brought out in the early part of 1981 and started generating a huge amount in royalties right away- about \$100K a month. He then started to assist the VisiCalc guys and work with bob Frankston in developing the data interchange format which would be a way to exchange data between VisiCalc and VisiPlot. The moving of data between these two programs was really cumbersome since there were no hard drives in those days, and Kapor was the person to raise the idea of putting both programs on a single disc to make the process less cumbersome. But, it was just taken for granted making him feel that the people around him doesn't want to work with him anymore so he had them buy him out for \$1,200,000. After six months, he started founding Lotus Development with Jonathan Sachs- the person who architect and implemented the original version of 1-2-3. In August 1981, when IBM announced IBM PC, they decided to target it and build a product that is optimized for its large memory space and fast processor. They grabbed the opportunity and took advantage of the fact that Software Arts and Personal Software were fighting with each other and

Systems Analysis And Design/ Case Study 6

were essentially distracted; to create a bigger spreadsheet that's faster and takes full advantage of the IBM PC. Lotus went public in 1983 where Kapor served as president and CEO from 1982 to 1986. It was in 1995 that Lotus was acquired by IBM for \$3.5 billion.

THREE THINGS I LEARNED:

As I read how Lotus Development was founded, I basically learned three things from its cofounder Mitchell Kapor.

First, I learned that even though you have many credentials or working backgrounds, you should not underestimate people and judge them from their appearance. Just like Mitchell Kapor when he was hired as product manager at Personal Software, his ideas were not always given attention by the Visicalc guys and all of his coworkers never gave interest to what he suggests. And the reason is simply because he had no credentials at all except for his unfinished product which they got interested with. But what happened is that a simple pest turned out to be Visicalc's savior when the founders of it were having legal disputes with their publisher personal Software. Moreover, the Lotus 1-2-3 developed by his company eventually hit the market and it took over to the "killer app" VisiCalc.

The next thing I learned is that in every startup, there is really a need to give human relations importance. Just like what Kapor did, he made the kind of place that he would want to work at in the company he's running. He created a workplace that treated people well. This idea was actually the same idea of the successful British entrepreneur at Scotland in the name of Robert Owen which laid the foundation for human relations movement.

Lastly, I learned that when choosing a successor to your position, you should choose the person not only because he/ she has good credentials. The thing should be is that that person should share the same vision or values you have so that the things you have started and put in place would sustain even though you're gone.

Ray Ozzie

Founder, Iris Associates, Groove Networks

Story:

It was in 1982 when Ray Ozzie first wrote the spec for groove. It had been based on a system called PLATO- a large-scale interactive system - which he had been exposed to at the University of Illinois. Since he couldn't find funding for the idea, he did a small amount of work in 1-2-3 1A for Lotus Development after having been hired there in 1983. It led to a small team to create Lotus Symphony, one of the first suite products, which he agreed to work on in the condition that Mitch would help him find a VC for his idea. Symphony was successfully shipped but Mitch just suggested that Lotus would supply them the capital instead of introducing them to VCs. He then formed Iris Associates in Westford, Mass in December 1984 with three other programmers. Iris became a corporate partnership with Lotus. Lotus Notes was the first widely used collaboration software for people who would want to do dynamic work together and had email on it. It was used as a content management system and as an application server. Its first release was shipped in 1989 and was acquired by Lotus in 1994. Meanwhile, in the fall of 1997, Ozzie founded Groove Networks in his house with his brother Jack, Eric Patey, and Brian Lambert. They moved to an office space at the Cummings Center in Beverly, Massachusetts few weeks later and then after a couple of months, another former Iris engineer joined their team. Early on in Groove, they tried to work through some of the more difficult algorithms and make key tooling decisions. They knew that it was a very risky piece of technology so they didn't hire more people until they were sure they could confidently accomplish it. But once they were sure they could build it, they decided to hire first 15 to 20 people. While Lotus Notes was collaboration software, Groove Networks was meant to build Internet- based work-group collaboration software. After three years of the founding of the company, they finally launched Groove in Beta in October 2000. The first commercially available version of Groove was not shipped until April 21 but after having shipped it, they announced a 10,000 seat deal with the major pharmaceutical company- GlaxoSmithKline- which was big

Notes customer. Microsoft acquired Groove in 2005 and named Ozzie chief technical officer. And in June 2006, he took over as a chief software architect from Bill Gates.

THREE THINGS I LEARNED:

I have learned many things from ray Ozzie, the cofounder of Iris Associates and Groove Networks.

First of all, I learned that doing a startup is like believing in God's existence without hesitation. You believe that what you are doing is going to have a dramatic impact. You might not exactly know how, but you really have a belief. Just like what we are to god, we don't know and we literally can't see who we believe, but we knew that believing Him is the right thing to do. That belief keeps us from doing good things that would please Him. It's just the same as in a startup, the belief you're giving focus to would actually keep you from going and going through many changes and a lot of uncertainty. It's like a goal that you would want to reach no matter what.

Next, I learned that it's very important to appreciate other people's skills. It's like one of the core values given importance by De La Salle College of Saint Benilde - appreciating individuals' uniqueness. According to Ozzie, this is one value that people who wanted to join a startup should possess. It's because this is very important when you're going to need other people if in case you decided to start a company.

Lastly, I learned that doing something for the right reason is important. Just as one of the verses in the Bible says, " And whatsoever ye do, do it heartily as to the Lord and not unto men," so shall our thought be with our jobs and that is, " Don't do things just for the sake of money, but for the mission of changing the world and having an impact on the lives of the people you'd encounter.

Evan Williams
Founder, Pyra Labs (Blogger.com)

Story:

Evan Williams decided to start Pyra in late 1998 while doing Internet stuff. He taught himself technically and managed to run a company for about three years. He went to college but dropped out after some time because he realized that he doesn't want to work for anyone. But then he moved to California to take a job with O'Reilly because he knew that Nebraska wasn't the place to be. He worked there for a few months teaching himself web development. He worked for various companies like Intel and HP as a web developer. That's the time when he got to the point of starting a company again, and that was Pyra Labs. Originally, Pyra intended to build a web-based project management tool. Around that time, he talked to his friend Meg Hourihan about starting a company and his friend, who used to be a management consultant, got interested to it. They started building the product with HP basically funding their company for the first year. They technically started the company in January 1999. Meg started full-time in February and then they hired their first employee Paul Bausch in May. They then got an office in Soma. At that time, blogs (or weblogs as everyone called them back then) were just beginning to be talked about as a distinct thing. They have their personal websites back then and Paul experimented on turning his site, onfocus.com, into a blog. Williams also wrote his own script before with the same functionality as Blogger. He used it to make an internal site, where he and Meg could do blogs even before Paul came, which they called "Stuff," and they just put stuffs in there. And when Paul came, he wrote a little addition to Stuff so that the things they post to their internal blog would also be put on their external company. Soon, they were like publishing news, random things they liked, and everything. That must have been around March of 1999 and that was also the time where Williams got the idea for Blogger. They decided to turn it into a product. It was launched on August while Meg was out for a vacation which made her got pissed off because she was also the cofounder. It was 2000 then that they started actually raising money. Since Williams had worked for O'Reilly as an employee before and he left a good impression on him, he was able to go back and show to them his stuff which, they agreed to invest on. They were also working on Pyra upon learning that blogging was going to dramatically impact the web. They then finally gave focus on Blogger full time. But as they went on that path, they realized that they were running out of money so they started trying to talk to some folks. At that time it was like other companies were going into enterprises since consumers aren't spending money. An opportunity came wherein one of their friends got their product installed in their company and so they thought that it was the start of enterprising Blogger. A lot of debate happened about just doing an enterprise but Williams decided that they pursue on doing the consumer site well. Williams thought of charging money from the consumers through Blogger Pro but everyone disagreed. In late 2000, they built a version of it with many features but still didn't feel comfortable charging money for it. They talked to many companies about merging and almost had a good deal with Moreover but Williams conceded for his employees to remain to have a job. In January, when the company was being laid off, they did Server Fund Drive. They posted it in their website informing the people that Blogger is really slow because they lack money for more hard drive. It surprisingly worked really well

and many people sent them money. They got the site back up but Williams and Meg weren't getting along well so the latter decided to leave and everybody else did the same thing. So Williams remained as the only employee until Dan Bricklin helped him. The web publishing company of Bricklin - Trellix - licensed Blogger in order to add blogging to their feature set and Williams managed to bring the company back from the brink. He started building more things including the Blogger API which didn't make money but became important later. With his new team, he finally launched Blogger Pro in 2002. This paid-for version of Blogger did very well for them. By 2003, the Blogger had already one million registered users which attracted the attention of Google. Google started talking to them about considering acquisition and Williams eventually decided to take into consideration what Google offered and it made Pyra the first acquisition of Google.

THREE THINGS I LEARNED:

Honestly speaking, I could relate well with the cofounder of Pyra labs (Blogger.com).

It is because just like him, I'm a kind of person with no focus on things that I have started. It's really my weakness and just like William Evans, I always jump from one idea to another. It was like, "Oh! I think this new idea I have is so cool. Ok! Let me just turn aside this stuff I had and I'll finish it as soon as I'm done with this one." And just like a cycle, it keeps on happening all over again. But one thing that I've learned from what happened to Pyra Labs is that once you get focused on something, everything will completely turn out right just as what happened when Williams finally decided to focus on Blogger.

The next thing I learned is that you should always do whatever you can to separate or resign from your work without leaving a negative impression to it so that you could still go back and it will welcome you with arms wide open. If in case William left a negative impression to O'reilly, he would not be able to show it and the latter will never invest on his company.

Lastly, I learned that giving up should be a "no, no!" in a startup. Williams was faced with the struggle of having himself as the only employee in his company after all his employees including his cofounder left him. Not only that, but he also had that same night a breakup with his girlfriend which totally ruined his day. If William's principle would be, "It's the end of the world," he would have never bring the company back from the brink.

Tim Brady
First non-founding employee

YAHOO

STORY:

Yahoo began in 1994 when Jerry yang and David Filo had their references for their PhD theses and all the technical papers online to keep track of them all. It basically became a collection of links to research papers maintained by these two Stanford grad students until all major EE graduate programs had them add categories they need or like. They gradually added links to new to new types of information until they created this huge list and the site grew rapidly in popularity. By the end of 1994, Yang and Filo were considering turning the site into a startup and that's the time when they asked Tim Brady- Yang's college roommate- to write a business plan for it. Initially, Brady was getting his MBA at Harvard Business School, but as Yahoo's potential grew , he decided to turn in the company's business plan as his final assignment in the courses he needed to pass, and became Yahoo's first employee. By that time, VC communities were recognizing Yahoo and were actually offering to host them even without the business plan. With those interests from several VCs, they thought of turning their simple hobby into a full- fledged business. Their first show off was in March 1995 during a consumers electronic showdown in San Jose where they had a booth. Few weeks after the show, they got funding allowing them to move into an office space in Mountain View. Their VC back then was Sequioa who gave them \$ 1 million. Aside from selling advertisements in their pages, they also did a bunch of things like making book deals. They did many things to get money and then searched for a CEO in the name of Tim Koogle. The first to give Yahoo a link was the one and only browser back then- Netscape. They then hired an outside sales firm to help them start advertising. Netscape went public in 1995 which set off a chain of reaction of PR urging the founders to hire a temp PR firm which didn't work out well since they already have Jerry who was way too good with the press. But then, Netscape sold their search button to Excite for about \$5

Systems Analysis And Design/ Case Study 9

million. One of the categories they struggled with in their business was the popular sex category which led to a very tough issue of pornography. They also had big debates about certain decisions to make. Many acquisitions were also offered to them but were just turned down. Yahoo went public in April 1996 and became the most popular network of websites in the world.

THREE THINGS I LEARNED:

I learned from this startup that certain hobbies could turn into a business if you put your heart into it. Just like what Yahoo was before. It was actually a tool for researches they need and then became a collection after certain additions by those who had interest on it and finally became a full-fledged business.

I also learned that having a positive outlook in life is good because it would motivate you to pursue what you want to do.

Lastly, I learned that having a long term goal in a business is better than having a short term goal because it would result to success.

**Mike Lazaridis
Cofounder**

RESEARCH IN MOTION

Story:

Research In Motion started way back 1984, when the two founders namely Mike Lazaridis and Doug Fregin were still undergraduates at University of Waterloo. Lazaridis basically started earning extra income to pay for college when he did a computer programming contract work for faculty projects after working on their own research projects and finding out that the stuff was pretty advanced technology. It was then during Lazaridis' senior year that he started his company which became what is now known as Research in Motion where he had to take a leave of absence from the president of his school. Their first project was a local area network for general motors which gave them a \$600,000 contract. After developing LAN from scratch, they started seeking money by acquiring grant from the Canadian government for their company to grow. It was in 1987 that Lazaridis found what his high school electronics teacher was saying about putting computer and wireless technology together. It hit him when he knew that Japan was into a wireless data system for Coca-Cola's vending machines. He had an interest to work on something like that until the president of Cantel asked him to write some software and help make work the wireless data system they bought called Mobitex. After having it work, they received a contract from Cantel and they ended up writing the very first wireless protocol software, application programming interface (API), and the development tools for the first wireless data networks. That was their company's first break and that's the time they really start producing products. At about that time, Lazaridis was getting deeper into wireless data; he had an opportunity to work for a Canadian company named SPAR Aerospace. They were asked then to make a product similar to what they have done before for Canadarm2 on the International Space Station and that's when the business sense kicked in. Back then, there is a system called Blackberry that was used by NASA to communicate with the International Space Station. By that time, Lazaridis realized that wireless push email had some value but was just tricky to do. Their goal then was to be able to make a product that is handy. They started working on it until they arrived at what they called

Systems Analysis And Design/ Case Study 10

interactive pager. After knowing that there was also this paging culture in North America, they improved their product to a two-way email terminal where people could send, at the same time, receive messages . in 1999, they launched Blackberry in New York and ended up being one of the all time most famous brands worldwide. RIM went public in 1997, and is one of Canada's most admired technological companies.

THREE THINGS I LEARNED:

I learned that certain backgrounds about what your business would be would help you in many ways. It would lead you to success.

I also learned that you have to have knowledge about what you're doing for you to accomplish your goals and for you to create certain ideas that would help you with your startup.

I also learned that having passion for your work will help you to view your startup and envision it to still be alive after a long term view.

**Arthur van Hoff
Cofounder**

MARIMBA

Story:

It was in 1996 when Arthur van Hoff left the Java Development team he was part of at Sun Microsystems to found Marimba with his former colleague Jonathan Payne, who first left the team. Then very quickly, former fellow developers from the same team joined them namely Sami Shaio and Kim Polese. They started funding their company with \$ 25,000 each to furnish an office space they found with equipments like fax machine, and a printer. Initially, they were working on building a user interface builder until some time, guys from a small startup visited them and showed them their product which was really similar to what they're working with. And then the next week, it was acquired by Netscape which stopped them from doing it since Netscape is a very big competitor that time. They moved on quickly to building a software distribution software wherein the idea is a subscription based software that would be subscribed and automatically updated rather than bought. By the time, they announced what they're working on, PointCast had come out to introduce a push- technology similar to what they're doing which made them struggle to explain to people that theirs is different. The company grew from a 4 person startup to a company with more than 300 employees at the time of its IPO in 1999 which made John Olsen replace Kim from being the CEO. Many VCs heard about Marimba and wanted to invest on them to find out what they're actually doing. The first round of funding was really good with the \$4 million from Kleiner Perkins. They had a couple of successes with the subscription based software distribution they did. Over time, the company went from a consumer software distribution- push technology to an enterprise software company which made a lot of money to be made in the market. Van Hoff left the company to start another startup, Strawberry, and by 2004, Marimba was acquired by BMC Software.

THREE THINGS I LEARNED:

Systems Analysis And Design/ Case Study 11

I learned from this startup that experience can help us in starting up a company. Certain backgrounds and different work experiences would supply you with ideas for the company you'll start.

I also learned that you should avoid as much as you can lawsuits because there are many people who would just make fun of you by filing several cases against you which will affect your company.

Lastly, I learned that you have to be very careful about the intellectual property rights most especially when you're from a certain company that is competitive in many ways.

**Paul Buchheit
Creator**

Gmail

Story:

Paul Buchheit, Google's 23rd employee, created and developed Gmail. It was about 1996 when Buchheit started working on email software which he was calling Gmail even before working at Google. Years later, he left Intel and joined Google. He worked on Google Groups where he was asked to build some type of email or personalization product. He was able to build the first version of Gmail in one day using the Groups code, which he was familiar with. Then, he released that to some Googlers and they said it was useful even though it was just searching his email. As part of his work on Gmail, he developed the first prototype of AdSense, Google's program for running ads on other websites. For quite a while, it was just him working. Then, Sanjeev Singh came to work on it and then for some time, Jing Lim joined. Working on Gmail took Buchheit kind of liking uncertainty because he's into excitement and adventure, but a lot of people seem to be against his ideas except for Google founders Larry and Sergey who are very open to crazy ideas. Gmail had many features like the auto complete where people could send email so fast without remembering the addresses. It's a feature that at first other web mails don't have. Another thing is the conversation view, which when clicked would let you get all of the messages as cards instead of separate emails. Google employees were actually the first to use Gmail before it was launched and the code name at the time was Caribou. Initially, Gmail was just an invitation only to avoid spamming of millions of accounts but anyone can sign up now even using their cell phones or through the Blogger. Truly, Buchheit had a lot of contributions to Google, and another example was his suggestion of Google's now famous motto, "Don't be evil," at a 200 meeting on company values.

THREE THINGS I LEARNED:

I learned many things from how Gmail was created. First, I learned that even though you're just an employee in a company, you could do a difference through your ideas. Just like Paul Buchheit, he was able to bring the company up through his idea of creating a web-based email system which is Gmail. Although many people are against his ideas, he was able to resist those and pursue on doing what he wanted. Moreover, he was also the person to have the idea of Google's value through his famous motto, "Don't be evil." Though he was not a cofounder of Google, he is said to have probably contributed more to the company than many founders do their startups.

Next, I learned that you don't have to have mentors before working on something which you have no idea how to work with. It will only take you the desire to learn and apply what you have learned. Looking at how different parts of Google's works could apply to Gmail and deciding whether Google's problem is different from theirs is what Buchheit used to make Gmail a success.

Lastly, I learned that in a startup, you need to have an attitude of being open to ideas even to the crazy ones. It's not always luck that makes a startup successful but it's because of the founder's attitude. Examples of those founders are Larry and Sergey of Google. Without them and without Buchheit's determination, Gmail will be out of sight because a lot of people were really against Buchheit's ideas.

**Steve Perlman
Cofounder**

WebTV

Story:

The first WebTV prototype was built one weekend in 1995 after Steve Perlman got interested in making television interactive. Way back 1989; WebTV's cofounder actually did a big prototype system for Apple where he had a video on the screen with images moving around. There were lots of offshoots from that work which were developed and turned into a product by Bruce Leak and his team. Perlman also worked for General Magic where he worked half-time for the said company and half-time for his own video stuff. In his last year there, General Magic got interested to do something he's working with which they called MagicTV, making him work full time to create an interactive system for them. But due to financial difficulties, the effort for MagicTV was stopped. That's when Perlman started to co found Catapult Entertainment with three other people in the spring of 1994. The company made a modem for Sega and Nintendo Video Games and they were able to reverse engineer four video games. The company was financially ok but not as a business. That, and his personal conflict with one of his cofounders led him to leave the startup in the spring of 1995. After having left company, he saw Netscape 1.0 and got interested with the World Wide Web and the idea of getting pages designed for PC screens to work on television screens. In three days of his round-the-clock effort, he was able to build a thin client for surfing the web, using a television display. He called up Bruce Leak to show him his stuff and the latter proposed that they form a company, and they called it WebTV. After that, they were able to attract Phil Goldman, a top-notch developer, to work with them. Then, they went to Marvin Davis, a wealthy financier in Hollywood who earlier invested in catapult, to invest in their company again. They ended up raising \$1.5 million from Marvin, and that started the company in July of 1995. They looked for an office space and went to an old BMW dealership that was vacant. They were able to convince Pac Bell, the phone company which didn't believe at first that they were a startup using an old car dealership, to bring a T1 line and set up online services in their company. They started hiring people after Phil Goldman passed away of a heart attack. They had an exclusive contract with Sony who proposed that Sony logo will be branded to WebTV which will then be distributed through their stores. They went to raise more money and the Davises gave them \$ 3 million that's going to be in two tranches. But then, \$1.5 million is not enough for the first tranche and they were just about out of money. They didn't tell that to their employees to keep the company going on a little bit longer but they started talking to some other investors and VCs such as Paul Allen of Vulcan and Sony, and Philips. But the thing is, none of them would want to invest, until they found Jeff Brody from Brentwood Venture Capital who prepared to put in \$4.5 million. They were just about to sign all the paper works until Sony decided not to proceed in deploying the product. But that didn't hinder Jeff to invest on them. And as soon as he moved forward, Paul Allen went to them to get in and out another \$4.5 million. After that, Philips came back to them for a deal. Meanwhile, they hired a consultant named Spencer tall who had a personal relationship with the CEO of Sony at the time. They told him about the decision of Sony in their company and Spencer find out a way to help them. And while working on developing WebTV due to

some bugs, Perlman received a call from Spencer telling that Sony's CTO is coming to get a demo of their product in 2 and ½ hours. That was really a disaster for them since the demo would be their big chance but they're in a really bad stage of development. That was a for-better-or-worse scene. But against what they expected, WebTV ran perfectly and did what it was supposed to. Then after that, they also gave that demo to the president of Sony Corp. who decided that they go back to the original contract they negotiated. They received funding from several people including Microsoft and they were able to introduce the product in July of 1996. And in 1997, WebTV (now called MSNTV) was acquired by Microsoft for over \$500 million.

THREE THINGS I LEARNED:

After having read how the idea of trying to get the Internet working through a television, I learned many things such as the fact that doing a startup is like engaging into a marriage. You had to choose wisely whom you'll partner with or else your relationship would lead to divorce. I learned from this that when you cofound something, you got to choose people that you share the same perspective with, for both of you to get along well with each other and for your company to be successful.

The next thing I learned is to be optimistic and just see what will happen when your company's encountering a very big problem just like what the cofounders of WebTV did. Sony once rejected deploying their product because the later taught that it will not hit, but then they were still given a second chance by sending their CTO to have a demo in the day that they were actually in a really bad stage of development. They didn't have a choice, that's why they just decided to roll the new build out when the CTO came and see what happened. After turning the thing on, it miraculously ran perfectly. If they surrendered at first, they won't be able to have Sony as their product deployer, which, at the time was the number one brand in the U.S.

Lastly, I learned that in connection to the first thing I learned, founders or leaders are really very important to the stability of a certain company. Let's just take the cofounders of WebTV as one good example. The three were very close and worked well together for better or worse. They had a common vision and exuded stability making their employees feel stable in the company. As a result, their good projections made the company so strong that they were able to survive and end up lasting over a decade.

Mike Ramsay
Cofounder

TiVo

Story:

TiVo was founded in 1997 by Mike Ramsay and Jim Barton after they left SGI. Initially, Ramsay was educated and had a factory in Scotland. Britain was in bad shape in the mid-'70s but he had a great career with HP, so he decided to move on to US to pursue his career. For some reasons, he left HP in the early '80s to start a company called Convergent Technologies wherein the idea of Convergent was to build a workstation. Ramsay had a couple of stints at HP and it was on the second stint that he met up with Jim to build a team inside the company hiring some very talented people inside. After a year or so, he ended up his big company thing after having been recruited at SGI. When he decided to join, he told it to Tom Jermoluk and Jim and some others, and many HP employees went out of the company. Soon, they wanted to startup their own company with Ramsay's idea and went to different venture firms. Only two people invested on them. They were Steward Alsop of NEA who got fascinated with their idea of Space, and Geoff Yang of Redpoint who looks for companies trying to push the envelope and do something radically different. Originally, their plan was to create a network server for homes but they realized that they can't do everything, so they decided to narrow the idea down to one application of the original plan Digital Video Recorder (DVR). They then hired very creative people and six months after having started, they were able to have a good-sized team of people with different specializations. Ramsay thought of having bright people attracted to cool technologies like theirs as a threat. That's why they decided to start a consumer company that would do very simple function that's got to work with a remote control. The idea worked well and they were able to hire some bright guys from other companies. TiVo became ground-breaking in that it let consumers manipulate their television through the idea of simultaneous record and playback, pause, and past-forward. Moreover, they were able to harness program guide data to drive the function by the machine. But the idea of pausing a live TV was really the one that made it a hit. They get their first and second round of funding from their initial VCs and they got Paul Allen from Vulcan for the third round. They had an IPO and got a \$200 million invested from AOL. During the time, they hired David Courtney as their CFO who helped them get through their IPO. TiVo was launched and went public at the end of March 1999 which they called Blue Moon Event. By August or September, they had sold about 12,000 units and they had their IPO done in September of 1999. The company's valuation actually went up to billions of dollars. They did a deal with Sony and DIRECTV wherein they started supplying DIRECTV with TiVos. Now, the thing has a got a life of its own and people loved it and started getting great feedbacks. Ramsay stepped down as CEO in 2003, but remained as chairman.

THREE THINGS I LEARNED:

I learned a lot from how TiVo was founded. First, I learned that when you wanted to do a startup, you have to have self- confidence that everything you'll do will lead towards the success of your startup. You have to have the spirit and belief that nothing is impossible as long as you take courage to do something. You have to take risks and be open to being burned because sometimes, you'll realize that it's not fatal.

Next, I learned that if you know that there are no opportunities in the place where you belong, you need to take risks in some other places and don't just stay in a place that's completely messed up. Mike Ramsay, when his place was in a very bad shape went to United States and worked there. And look at him now; he learned that it takes self confidence and risk- averse to be able to have a successful startup.

Lastly, I learned that competitors are also one important part of a business. They would dictate how strong or how weak your companies are to such big threats such as them. And you'll never know, you're already learning from them strategies that would help your company stabilize.

**Paul Graham
Cofounder**

Viaweb

Story:

Paul Graham and his friend Robert Morris started Viaweb in 1995 to make software for building online stores. But before that, they had a startup called Artix wherein their idea was to put art galleries online. The only problem was that art galleries didn't want to be online, so they switched to the idea for Viaweb. And that idea was going to be software that would be used on desktop computer to build a web site that would then be uploaded to a server. A few days into writing the first prototype, they had a crazy idea of having the software run on the server and let the user control it through their browser. In that very beginning, they didn't have any funding and they were working in Robert's apartment. Then, they got some funding from their friend who worked with them on Artix and gave them \$10,000. And then after about six weeks, they also got Trevor Blackwell- the very talented employee they had before. Before Trevor's arrival, the two cofounders actually had a 24 hours work whereas Paul would work up till four and got up at noon while Robert would get up early and continue writing the code. And the thing is they actually did the coding in only one computer. Within weeks, they had a web-based online store builder they could demo to investors. They had their first demo in early August and individual merchants wanted their software. They had many competitors in their online store. One was iCat, their biggest competitor, which actually was not good at writing software but very good in raising money. They also had Shopsite that was better technically but was not too dangerous just like the iCat. They also had a lot of acquirers in the first year or two of Viaweb, one was the approach of a certain big company, who, in turn didn't had a deal with them because of their disagreement with the negotiation made by Viaweb's investor. One turning point came when Robert was about to leave for a summer job without Paul knowing it. And after having been informed, their main angel investor suggested that they find a CEO and that's when Fred Egan came. Soon, they were starting to be mentioned in the press a lot after hiring Schwartz Communications- a fabulous PR firm. They tried to do an online demo for Tim Koogle in the fall of 1997. By 1998, Viaweb store was the most

popular ecommerce software. It was then acquired by Yahoo the same year and was renamed Yahoo Store.

THREE THINGS I LEARNED:

I learned from how Viaweb got started that when doing an application for a startup, you have to remember that your main goal is to reach out for the end users' needs at the same time look at them as somebody who has been traumatized by bad experiences with other products. It's one reason why Viaweb was greatly liked by the people.

Next, I learned that it's never a deal until you don't have the money right in your hand. It's because there is an 80 or 90 percent chance that that deal would fall. And if you believed the offer and change your plans based on that, your company won't be able to adapt immediately to the rapid changes, thus, letting your company to fall. So, the thing that should be done is to never immediately believe when people from different companies would tell you that they would want to acquire your company. You just keep going.

Lastly, I learned that it's not always true that the way to convince people to use your product is to be persuasive. One strategy that I learned from this company is to convince people by telling only the truth. With that strategy, you'll never think of the things that you would say to the people. Only natural words would come out of your mouth and you don't have to keep any state in your head. It's purely true things you know about your product that you'd tell.

Joshua Schachter
Founder

del.icio.us

Story:

del.icio.us got started way back 1998 when Joshua Schachter created a website called Memepool wherein stuffs are posted from the contributed links of some people that's edited and chronologically sorted and updated- basically a blog as called nowadays. By 2001, Schachter had a text file filled with 20,000 links and he couldn't find anything in those files anymore, so he started putting in notes. After some time, he couldn't handle it anymore, so he built a sort of next generation of that file called Muxway. That's when he hit on the idea of tagging. There was a bookmarklet then where things are saved and described through tags. And the interesting thing is that there were some 10,000 daily readers looking at his stuff. He did several projects along the way including the GeoURL that's like Reversible. Soon, in later 2003, Schachter worked on a multiplayer version which was del.icio.us while working as a quantitative analyst at Morgan Stanley. But all the while, del.icio.us was growing and by November 2004, it had 30,000 users. Soon, his group at Morgan Stanley began to come apart and that's the time he left. In early 2005, he decided to turn del.icio.us from a hobby into a company. In March of 2005, after having left his job to found del.icio.us, he raised \$1 million in funding. And in December of that year, it was acquired by Yahoo for an amount rumored to be about \$30 million.

THREE THINGS I LEARNED:

Systems Analysis And Design/ Case Study 16

I learned that in a startup, you don't have to raise much money because sometimes, being overcapitalized could lead to failure. As said by Schachter, there are general ills with being over funded because the VCs would want you to spend even you don't have to just for you to be able to convince them that the money is going somewhere. In the end, you would turn to them in the very time that you really badly needed money. The problem would be instead of focusing on the value of the data to be fed for the people that don't need a lot of funding, you would look for other things that would need funding just for you to meet the requirement of the VC.

Next, I learned that just like how del.icio.us and other companies got started, startups could actually be hobbies that would be needed and have pleasure upon not just by you but by other people too. So, you have to be very open to others' needs because they might need it more than you do. Never look also at your hobby as something that's just for you because you might get more money when you open it to others.

Lastly, I learned that in a startup, you should always have an eye towards innovation. You need to do as much as you could many improvements with your products so that the users would continue using those. And whatever your innovation is, question every single aspect that would affect your company.

**Mark Fletcher
Founder**

ONElist, Bloglines

Story:

ONElist was started in 1997 by Mark Fletcher when he was a senior software engineer for Sun Microsystems. This startup is basically a free Internet email list service. He ran it as a side project until he received venture funding a year later. Then, he sold it to yahoo and it was then renamed eGroups. Fletcher left at the acquisition in September of 2000. Then, after having a break by traveling around, he realized that he's into working with computers all his life and should not deprive himself in working on startups. So, he started another company and it was called Trustic- an anti-spam company. And while working on the anti-spam project, he's also into a side project that became Bloglines. It was a web-based news aggregation service that's a solution for managing his bookmark list. Then, he decided to throw it out to some of his friends and it started doing some marketing. It went from there and that's when he hired again his coworkers with ONElist before. Since his startup was something that doesn't require a lot of money, he just self funded it and put in a total of \$200,000. He used the same company set up for the anti-spam company and went online in the late June of 2003. They started press coverage from there. Bloglines got far on its way to becoming the most popular news aggregator on the Internet. And in February 2005, Bloglines was acquired by Ask Jeeves.

THREE THINGS I LEARNED:

I learned from Bloglines that in a startup, you need to first solve the problem you have because chances are other people may have the same problem too. But, you also should make sure that you don't invest immediately on something that you're not yet sure that's going to be welcomed by people. You need to assure first that that problem is also the problem others have and the solutions others want before working on a startup.

Next, I learned that when you're already in a startup, you need to be open to suggestions most especially the ones given by our users. It's because loyalty from your users takes acting on feature suggestions given by them. Through that, they'll see that you are actually listening to them and then they'll become more loyal to your site. Oftentimes, it may be a disadvantage to your company but it's most of the time advantageous.

I also learned something from the last statement of Mark Fletcher. It says there, "So, now I'm taking a little time-off. I'll do some skiing, and then I'll start something else." This statement caught my attention because I saw determination from those words. I also saw open-mindedness from the founder. He's into working on something else that made him successful. Though he knew that doing startups is so crucial and tiring, still, he's into doing and doing it. And I believe that that's the essence of having passion for your work. If you have an interest on what you're doing, you'll never get tired with it. Instead, you'll face difficulties that you'll experience with a big smile in your face and with open arms.

CRAIG NEWMARK

Founder

craigslist

Story:

It was in 1995 when Craig Newmark started sending out notices about cool events in San Francisco to his friends. It came to a point wherein more people wanted to be added on the list and started calling it “Craig’s List.” Soon, suggestions called for listing stuffs related to jobs and sales. In late 1995, as Craig’s List grew in popularity, Newmark wrote Perl Code using Pine as his database tool to turn his email logs into web pages. And that’s when he switched from a mailing list into a website and added more categories, still without knowing that he’s already into a classified ad business already. At the end of 1997, he was getting about one million page views a month and at that point Microsoft Sidewalk offered him to run banner ads which he didn’t accept. In the 1998/1999 timeframe, they thought of charging for something and they stucked to the suggestion of charging job ads and landlords or apartment brokers. In 1999, Newmark decided to turn craigslist into a real company. During that time, he was into another startup but he left it for craigslist. Jim Buckmaster joined on as lead programmer and CTO in early 2000. After realizing he’s not a good manager, he promoted Buckmaster to become the CEO after a year who really did a great job, and Newmark’s title became Customer Service Rep and Founder. He managed to keep all listings free except for the help wanted ads in selected cities and broker apartment listings in New York City. Several companies offered acquisition but they were politely turned down by Newmark except for eBay which purchased equity from a former employee of craigslist. It still continues to expand and now has sites for over 300 cities worldwide.

THREE THINGS I LEARNED:

Craigslist is really a company where much moral values will be got. First, I learned that dedication to your mission should always apply to everything you're doing. A very specific example is Newmark and how he started his company. Before the idea of craigslist was begotten, its founder was already into his mission of evangelizing the benefits of Internet and building a community on it. With that, he held fast to his plan of keeping craigslist as free as possible as soon as it was started up. And until now, he was able to resist the temptation of charging for it. That's how he was really dedicated to his mission.

Next, I learned that if you're into being an entrepreneur, you need to learn the essence of listening not only to the dictates of greedy people about how you can earn more money in a wrong way but to the suggestions of your product users. Craigslist succeeded as a company because they listened to their customers' suggestions, figured out what seemed to make sense, and they did it. They succeeded because they do things almost 100 percent based on what people ask them to do.

Lastly, I learned that the most important part of a startup's culture is the culture of trust and the moral compass. According to Newmark, it's always better to trust instincts and moral compass when thinking of starting a company. He gave this as his good advice because he had already experienced to trust some people whom, his instincts were telling him were untrustworthy and in some cases proved to be true. Sometimes, it's about not trusting our instincts that make us regret afterwards.

**Caterina Fake
Cofounder, Flickr**

The cofounders of Flickr were Caterina Fake, Stewart Butterfield, and Jason Classon. Before working on this photo-sharing community site, they were actually into massively multiplayer online game called Game Neverending. This was their first product for their company- Ludicorp.

Initially, Flickr was just a feature to a side project they built while waiting for the back-end development of Game Neverending to catch up. This project was actually a sort of instant messenger application with the ability to share photographs. They got positive responses from it most especially when they already added the ability to create something new. And as soon as Flickr started taking off, they tried to work on Flickr and Game Neverending at the same time but failed to do so since they were just six in the group, so they put the latter on hold in July of 2004 and stopped its development.

The first problem they encountered with Flickr was the critical mass problem because the sharing feature wasn't valuable to people unless friends were already on it. Moreover, it was just a feature and so it didn't end up being a compelling product. But as soon as they decided to add the ability to put photographs available on a web page, they eventually got traction.

Flickr was something entirely new since its cofounders were into creating something. Actually, they didn't do any researches and that enabled them to innovate and tie a very specific and very connective activity like photo sharing leading to the development of a new photo-sharing community site.

At the time Flickr was developed, social networking services were already happening. And since Flickr also offers social networking service which is the photo sharing activity, people used it. I think the thing that people wanted was a social networking service that offers activities that would be of interest and Flickr's service qualified to that with its online photo sharing activity.

Because of Flickr's emphasis on user generated content and devoted online community, it became one of the most commonly sited examples of Web 2.0 companies. I think blogging startups and social networking services startups like Friendster, Myspace

and the Tribes influenced it in a way that those got people used to the idea of putting up photographs online and publicly. One startup, I believe, that Flickr kind of influenced was Ofoto because the latter did some of the pieces of what Flickr did.

Flickr was unique in a way that they offer photo sharing services and had the idea of publicness of the photo. The services they offered was I think not already offered before by other startups because it was said in this article that photo sharing activity wasn't seen as a valuable enough activity that people would pay for. Aside from that, the idea of publicness hadn't been also there when startups like Ofoto and Shutterfly were being built.

Based from what I've read, Flickr was not a proposed system.

If I were in the cofounder's shoes, I would have combined the idea of photo sharing and photo finishing services mixed with photo editing. It's because it would not be disagreed upon that people are into personalized stuffs. And if Flickr was already under this idea of photo sharing, then it would be advantageous if they come up also with a photo finishing service where people would buy prints with the photos shared to them by their friends. It would have been a very good business. But then, I would also do what they have done which is when they chose Flickr than Game Neverending because I believe that not all of the games online would not always turn out to be never ending. People tend to change addictions from one thing to another and easily loose interest with the game they have had addicted upon most especially when there's something new.

I think Flickr would have not been possible in a Third World country because particular resources are lacking in this area. The peculiar characteristic that allowed it to flourish where it was conceived was its being technological. During the time, it was said that camera phones were starting to rise. Since the place where the startup was conceived was high-tech and was looking forward to developing more high-tech gadgets, then it would really flourish there successfully. But it should be noted that Flickr's service would have applications in a Third World country since some Third World countries are already into developing high-tech gadgets just like camera phones. And also, Web is already known in the area too.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that Flickr's main service was all about photo sharing. Before I read this case study, I had already joined Flickr and had an account of it but I thought that it's just like Friendster that's just for social networking.
2. After reading the case study, I learned that Flickr was just a surprising side project of Ludicorp Company. Before I read this case study, I thought that Flickr was a main product made by certain people that have a very good background in this area.
3. After reading the case study, I learned that Flickr was an innovation and was not researched at all. Before I read this case study, I was thinking that Flickr was created under different researches within this area and was proposed for an existing system.
4. After reading the case study, I learned that Flickr was built within eight weeks only. Before I read this case study, I was thinking that Flickr was done for years just like other startups.
5. After reading the case study, I learned that startups like Ofoto, Shutterfly, and Snapfish offer photo finishing services. Before, I hadn't heard about these companies but I already knew their offered service because of Multiply that has this kind of service too.
6. After reading the case study, I learned that the road this company went through to make it flourish was pretty smooth unlike other startups.
7. After reading the case study, I learned that Flickr was cofounded by a female. Before I read this, I was thinking that Flickr was created by a male since they're usually the ones doing startups and I also thought that no female has done a startup yet.
8. After reading the case study, I learned that the startup Ofoto, which offers photo sharing service, once tried to acquire Flickr. Before reading this, I hadn't heard of Ofoto and stuffs about acquisitions.
9. After reading the case study, I learned that sexism against women in business still happens today. Before reading this, I thought that women were already accepted and treated equal with men.
10. After reading the case study, I learned that the two cofounders of Flickr were actually couples. Before reading the case study, I hadn't heard about married cofounders of a certain startup.

THREE THINGS I LEARNED:

Flickr was a startup where a lot of things would be learned. One thing I learned from this startup is that constraints inspire creativity. Before, I believe that it would always be helpful and easy to do startups when you have more resources like money and men. But after reading the case study, I learned that when you have fewer resources, it would lead you to become more creative and innovative because you would want to stretch the limited resources you have.

Next, I learned that expectations with women in this business field are always higher compared to men. According to the book, twice as much is expected of them than men. Since I am also a woman, where career is leading somewhere in this business I should be prepared and be aware that there is a lot of institutionalized sexism working against me with my chosen career.

Lastly, I learned that aside from being aware of the discrimination against women, I should also take certain actions to support women and eliminate this existing discrimination against us. I could do things like doing a group blog for women in technology, and joining organizations for women in this business.

Brewster Kahle
Founder, WAIS, Internet Archive, Alexa Internet

Brewster started WAIS (Wide Area Information Servers) in the late '80s and founded it as incorporation with John During. A year later, he also founded Alexa Internet simultaneously with Internet Archive and cofounded it with Bruce Gilliat.

Kahle continues to run Internet Archive after Alexa was acquired by Amazon in 1999. Before moving over to build and run the Internet Archive, Kahle had already founded WAIS, Inc. the earliest form of Internet Search Software, and Alexa Internet.

Internet Archive was stated with what Kahle really had wanted to do and had dreamed of ever since which is to build a great library after having finished building supercomputers and got the publishing going and running.

Internet Archive, according to the book, was said to have helped build a history for the web. Thus, it could be concluded that the startup was something that's entirely new. Basically, the problems with the couple of things the founder went through to be able to make this startup possible were the main problems of this startup. It took WAIS and Alexa Internet to make this possible and those startups have actually had particular problems. WAIS had a problem before with the Internet and how the idea behind it would be easily understood by people. Aside from that, the founders of this startup also had some technical problems about using computer network. Meanwhile, with Alexa, they couldn't find a way of selling advertisements in such a way that it could turn into making money for them.

Basically, people needed something where they could easily search for information, and Internet Archive together with WAIS and Alexa Internet qualified to them since these startups offered this kind of service.

This startup had an impact in the history of the Internet in itself since it built the history for the web. WAIS became one of the earliest forms of the Internet Search Software and was in some ways a predecessor to Web Search Engines.

One thing I believe that's very unique with internet Archive is that it's the only startup that would not be built without the other startups like WAIS and Alexa Internet. It's like an "include" in the use case diagram. Without it or without having it as the goal to be

achieved, there would be no WAIS and Alexa Internet. And without WAIS and Alexa Internet, it would also not be possible.

If I were in the cofounders' shoes, I would have also done things one step at a time. It's because everything that we wanted to achieve should be done accordingly and slowly but surely. But then, I would have not thought of search engines as something that would not be able to scale. It's because if I were one of the cofounders, I should have also thought of the idea for search engines the way I've thought of mine as something that's crazy but would be possible.

I believe that these startups would not be possible to Third World countries because resources in here are very limited. I think this startup flourished in the place where it was conceived because there are many dreamers in this place who were thinking of creating something new and different. But then, I believe that the startup's service would have applications in Third World countries because people in these places are mostly great imitators. They would, as much as they could, try to reach what other countries have reached now just for them to not be left behind. A parity others might think- a competitive necessity.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that WAIS was one of the earliest forms of Internet Search Software and was in some ways a predecessor to the Web Search Engines we knew today. Before I read the case study, I thought that the Web was the very first one.
2. After reading the case study, I learned that the idea for WAIS was to make network services and that it was not initially the project of its founder but of the company where he was formerly employed. Before I read the case study, I hadn't heard of WAIS.
3. After reading the case study, I learned that WAIS was started at California with a contract to have a bootstrap information system for the presidential campaign in 1992. Before I read the case study, I thought that stuffs about the Web already existed before the '90s.
4. After reading the case study, I learned that newspapers are pretty much online now and that they could control their own distribution. I was thinking before that newspapers were still sold the traditional way in stores.

5. After reading the case study, I learned that Alexa internet was a navigation system for the Internet. Before reading this case study, I had heard of the Internet but I was not very familiar with Alexa Internet.
6. After reading the case study, I learned that Alexa was acquired by Amazon in 1999. Before I read the case study, I had heard of Amazon but I wasn't aware that they're also into acquisitions of different companies.
7. After reading the case study, I learned that Internet Archive is a non-profit startup. Before reading the case study, I didn't know that there are startups where you can't earn profits.
8. After reading the case study, I learned that there are companies whose power relied in the ideas of young engineers, just like Thinking Machines, who could see where things were going better than the top level management. Before I read the case study, I was thinking that top level management predicts everything and had the greatest power in the company.
9. After reading the case study, I learned that during the time when John Sculley was running Apple Computers, the company was likened to a "beanbag chair" where all of the levels of management needed to be pushed up and down to try to get everything to move. Before I read the case study, I thought that Apple Computer hadn't had a problem with discipline inside the company.
10. After reading the case study, I learned that the main goal of Brewster Kahle was to build a great library through the Internet. Before reading the case study, I didn't know about the possibility of a library in the Internet.

THREE THINGS I LEARNED:

Basically, I learned from this case study that just like what the founder here has learned in doing a startup, picking setting carefully is very important. It should be a suitable place for you where you could be able to do something very interesting and also, it should be a place where people would think that the thing you're doing is not a crazy stuff.

Next, I learned that it's very important in a startup to think of how to make people happy with what you've done from the day they started using it.

Lastly, I learned that having and running your own company is not like lying on the bed of roses. Rather, it means having a very big responsibility and having difficulty blaming somebody else. Moreover, you also need to have the general attitude toward how to make the whole thing work and making sure that you're creating a fun environment where people would want to work.

**Charles Geschke
Cofounder**

Adobe Systems

The cofounders of Adobe Systems were Charles Geschke and John Warnock. The name Adobe was got from the name Adobe Creek which runs behind Charles' house.

The main reason they started working on this startup was because of the slow commercialization of the product if they pursue working on it for Xerox Parc. They knew that their idea would be very old news if they didn't start it as soon as possible.

The particular problem this startup encountered was when Steve Jobs, the primary Adobe champion inside Apple, left and was taken over by Jean – Louis Gasse, who never got along well with Adobe. When Gasse started taking over, Apple got tired of paying Adobe royalties for the LaserWriter the latter was making for them. The products offered by Adobe Systems were improvements of existing systems. It's a product wherein different printers with different speeds, characteristics, and colors would be integrated so that computers could talk to any printer.

People used the services of Adobe Systems because it has been very hard for them before to interface between the computer and the printer. The thing that people wanted was the service or product wherein different printers with different speeds, characteristics, and colors would be integrated so that computers could talk to any printers.

It had an impact in the history of the Internet in a way that different ideas from the Internet could be printed after having read and copied those. This startup which is initially called Interpress became the precursor of PostScript, wherein the idea would be network of printers and computers would be built and those could all talk to one another.

What's unique about their startup was that it offered something where different printers and different computers interface each other. The startup was not offered before they did it but it was something done before by Apple's Development team.

The existing system before this was a system wherein computers and printers with the same brand would be the ones able to talk to each other.

If I were in the cofounder's shoes, I would have also listened to the suggestions of people interested with any product because customers sometimes dictate what your startup really is. I would have also done what they have done when Xerox told them that it will take seven years and up to commercialize their idea.

The startup I think would have not been possible in a Third World Country because of the lack of resources and knowledge about Information Technology. The peculiar

characteristic that the place where the startup was conceived was that the place consists of people very interested in exploring systems and eager to improve those.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that Adobe Systems first developed project was a language called Interpress which allowed any computer to talk to any printers. Before, I only knew that the computer would only talk to a printer with the same brand.

2. After reading the case study, I learned that the first technology developed at Adobe Systems was PostScript. Before, I have heard about Adobe Systems but I have not heard anything about PostScript.

3. After reading the case study, I learned that the cofounder of Adobe Systems initially is from Xerox Parc. Before, I have heard about Xerox and the thing that would come out of my mind would be the photocopying machine product.

4. After reading the case study, I learned that Adobe Systems partnered with Apple Computer and designed laser printer for them. Before, I have heard about Apple Computer and thought that they were the ones who developed this technology.

5. After reading the case study, I learned that the idea for Desktop Publishing was got from John Scull, marketing guy at Apple. Before, I have read that Apple had a problem of being like a bean bag chair wherein the three levels of management need to be pushed up and down to move when John Scull led it.

6. After reading the case study, I learned that Interpress was not really a programming language, unlike PostScript, but a little more static. Before, I never knew about Interpress.

7. After reading the case study, I learned that Interpress was actually made for Xerox Parc. Before, I thought that Xerox was only about photocopying.

8. After reading the case study, I learned that HP was the competitor of Adobe Systems with the LaserJet. Before, I didn't know that Adobe Systems also make that product.

9. After reading the case study, I learned that Chales Geschke and John Warnock were the cofounders of Adobe Systems. Before, I didn't know their names.

10. After reading the case study, I learned that Xerox Parc takes seven years and up before commercializing a product. Before, I thought that years like that is the fastest commercialization of products.

**Ann Winblad
Cofounder**

Open Systems, Hummer Winblad

Ann Winblad, together with the other three guys he worked with at the Federal Reserve Bank cofounded Open Systems.

After doing this startup, Winblad also cofounded the first venture firm to focus exclusively on software which is Hummer Winblad Venture Partners in 1989.

What motivated Winblad to do this startup, though she already had a very good job at Federal Reserve Bank, was the feeling of being empowered as a youth to achieve. She had the feeling of fearlessness about the risks if she continues working on it.

The particular problem this startup encountered was the difficulty about pricing strategy and collecting money from people. The accounting software they offered was something that's entirely new during that time. In fact, Winblad was one of the first generation of entrepreneurs who figured out by trial and error what a software startup was.

I think people used the service because the product these cofounders offered, if not built by them, would yield to difficulty in building accounting system. Moreover, the product they offered was a software where accounting system would be used for computers.

The impact of their startup in the history of Internet is that through the trial and error of Winblad, software startup would not be figured out. The startup that it influenced was Hummer Winblad, in a way that this became the first venture firm to focus exclusively on software.

What's unique about this startup was that it started out of only \$500 from the cofounder's little brother. It was something, basically, that was never done nor offered before.

If I were in the cofounders' shoes, I would have also risk my very good job for starting a company but the thing is, I would just do that and take the risk if I already had a great idea in mind.

I think, the startup would not be possible in a Third World Country because the thinking of Third World countries' government is more on the basic needs of people to survive and live. Startups like that are not given too much importance in a Third World Country because people's way of thinking would be that those stuffs are just for rich people. The peculiar characteristic of the startup was that it was purely built by risk and that allowed it to flourish where it was conceived. They would have not done that if the cofounders didn't take the risk.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that Open Systems was one of the first startups to offer software as product. Before, I have heard about software but I didn't know that Open Systems was one of the first software startups.

2. After reading the case study, I learned that a female cofounded Open Systems. Before, I never thought that a female had already cofounded a startup.

3. After reading the case study, I learned that when forming a company, there's a big difference between being an inventor and being an entrepreneurial to leading a company because you're not fending for yourself but for the shareholders. Before, I didn't know that there's such a big difference.

4. After reading the case study, I learned that Open Systems was sold for \$ 15 million. Before, I haven't heard about Open Systems.

5. After reading the case study, I learned that the software first offered by Open Systems was Accounting Software. Before, I didn't know that there's software for Accounting Systems.

6. After reading the case study, I learned that Ann Winblad was probably the most powerful woman in venture capital now. Before, I thought that a guy is the most powerful in venture capital.

7. After reading the case study, I learned that the company was started initially without any idea about what to do. Before, I thought that when you start a company, you already had the idea for it.

8. After reading the case study, I learned that Open Systems was started with a criterion wherein they would build a company where they would like to work. Before, I already had the idea about this criterion in our Principles of Management subject but I didn't understand it fully well.

9. After reading the case study, I learned that Winblad cofounded Hummer Winblad Venture Partners after having sold Open Systems. Before, I didn't know about Hummer Winblad Venture Partners.

10. After reading the case study, I learned that Hummer Winblad Venture Partners was the first venture firm to focus exclusively on software. Before, I didn't know about any venture firms focused exclusively on software.

David Heinemeier Hansson
Partner, 37signals

David Heinemeier was just a part of 37signals 2.0 management team. He became the consulting company's partner after having transformed it into a product company.

He later founded one of the most popular tools among web developers- Ruby on Rails.

Actually, 37signals wasn't begun as a startup. It was just founded by Jason Fried as a web design shop in 1995. But the idea of Hansson of the Basecamp which made the transition of 37signals from a consulting company to a product one.

It was started while Hansson was working as a contractor in the said shop doing the programming. It just so happened that they came to the idea of blogging to distribute information to people because they had difficulty managing the client project process.

The particular problems that Basecamp encountered were: the bank they had a deal with didn't let them sell a service that's going to be promised for an entire year unless they had a long history with the bank, they had this notion before that Basecamp was for creative services and so the assumption went very deep making it hard for them to fix it again., and they didn't consider time zones making the transactions with other countries one day late.

The idea for Basecamp was an improvement of something that has already existed before. People liked and used their service because it was pretty simple and it was an online project management tool. They used it because they were impressed by its simplicity unlike the other products offered before which are very big and honking, as said in the case study.

Basecamp had an impact in the history of the Internet in a way that it improved the existing project management tool into an organized and simple one, still, with the widening of the development of the Internet because it's made online. It influenced to what Hansson built later which was Ruby on Rails. The generic ideas Hansson had was pulled from Basecamp and put into the toolbox Rails until it became larger and larger, and very useful.

What's unique about Basecamp is that it was built with the whole constrained development model making them to really focus their views on what they really needed, and it forced them to make tough decisions about making less software all the time.

If I were in the cofounder's shoes, I would have also pulled some generic ideas I had for Basecamp to work on a better tool for my own. It sounds selfish but I think it's not really because my rationale is that I had those ideas and I should not be using those for others' success only.

The startup would have been possible in a Third World Country since there are already many companies that are working with Project Management tools. If there are already companies like these, I'm sure that they're also having problems with managing their project clients and so, the thing is there would be a possibility that they would be able to think also of the same idea Hansson had. Moreover, their model would also be the whole constrained model because they have limited resources. The peculiar characteristic that Basecamp had was that it was very adaptable to constraint. The developer was even more focused with the productivity of his idea because of constraint.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that the startup that could really be considered a startup in this case study is the project tool of the 37signals which was Basecamp. Before, I thought that 37signals was really the startup cofounded by David Heinemeier Hansson.

2. After reading the case study, I learned that hackers were also identified and awarded. Before, I thought that they're not.

3. After reading the case study, I learned that Basecamp was an online project management tool. Before, I didn't hear about Basecamp or online project management tool.

4. After reading the case study, I learned that David Heinemeier Hansson was the Hacker of the Year Award at Oson in 2005. Before, I didn't hear about Heinemeier.

5. After reading the case study, I learned that Basecamp was built by a constrained model development. Before, I thought that you'll never experience constraint whenever you're working for a great idea in a company.

6. After reading the case study, I learned that Ruby on Rails, which was founded by Hansson, became one of the most popular tools among web developers. Before, I didn't know anything about Ruby on Rails.

7. After reading the case study, I learned that Hansson was the only programmer working on Basecamp. Before, I thought that startup like this needs a lot of programmers.

8. After reading the case study, I learned that Basecamp was worked on by Hansson 10 hours a week only. Before, I thought that 10 hours a week is a very few time for working on startups like this.

9. After reading the case study, I learned that the idea for Ruby on Rails were generic ideas pulled off by Hansson from Basecamp. Before, I didn't know that you can also pull off ideas from the product you're working with for a certain company.

10. After reading the case study, I learned that 37signals was initially a consulting company. Before, I didn't know about 37signals.

**Philip Greenspun
Cofounder, ArsDigita**

Philip Greenspun founded ArsDigita in 1997 together with some of his friends.

ArsDigita was started after big companies started to like the system it offered initially as a free open source software. These companies demanded for 10 extra features which will need many programmers to do support and service.

The particular problem this startup encountered was that Greenspun's computer programmers don't listen to what the customers want. Instead, they do stuffs that they like but the customers don't want. They also had difficulty hiring great businesspeople because it is very typical that these businesspeople don't work with companies where everything is constrained. But, as soon as they got \$38 million from venture capitalists, conflict arose between the new investors and the cofounders until even Philip Greenspun and some of his cofounders were fired. While these new investors were taking control of the company, lots of money were starting got lost without them noticing it because of their inaccurate accounting.

People used the service offered by ArsDigita because they need a software toolkit where they could build an Internet application or an online community that has more custom features. Moreover, they need somebody who could help them out with the free open source software ArsDigita offered.

It had an impact in the history of the Internet in a way that it became an embodiment of a new model for software consulting. Moreover, it offered the idea for software toolkit that's for building Internet application and an online community.

What's unique about this startup was that it tried to help each programmer develop an independent, professional reputation like any other professions wherein they could sit down face to face with the customers, finding out what they need, coming up with some suggestions or changes, and making it happen. Moreover, the company was much faster unlike others developing software because they could shortcut the long year development cycle like a 2-year development cycle down to maybe 2 months. This service offered by startup was something that was already offered and done before.

The very popular example of the existing system before ArsDigita was SAP, which is a popular toolkit for building corporate accounting systems.

If I were in the cofounder's shoes, I would have also sold my company to the new investors who still wanted to take control of it even though they really can't, instead of pursuing the legal battle with them that will only cost me a lot of expenses. But then, I would have not let them degrade me by shutting me up whenever I would give my suggestions. I knew I had the very right to decide for my own company and I should fight for it. I would not let them take me for granted.

The startup would have not been possible in a Third World Country because the startup has great programmers and a good founder that's MIT-trained Computer Science nerd. But, it would have applications in a Third World Country because countries here already have businesses that need systems for Internet applications.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that ArsDigita was a software consulting company developing software toolkits for Internet applications or online communities. Before, I thought that ArsDigita was still a photography site.
2. After reading the case study, I learned that programmers haven't been professionals because they haven't really cared about quality. Before, I thought that programming is a profession that's always making quality codes for better systems.
3. After reading the case study, I learned that Accenture's first name was Anderson Consulting wherein they always had the people who were executing the project itself. Before, I have heard Accenture but I didn't know that it was also a consulting company.
4. After reading the case study, I learned that Philip Greenspun and his friends founded ArsDigita. Before, I didn't know that they are the ones who founded it but I have already heard about ArsDigita.
5. After reading the case study, I learned that ArsDigita was started out of the photography site- photo.net- Greenspun managed. Before, I thought that ArsDigita was initially a photography shop.
6. After reading the case study, I learned that Greenspun was fired by the new investors he took. Before, I didn't know that a founder of a company could also be fired even though he had the majority of the shares in the company.
7. After reading the case study, I learned that a constrained company would have a hard time hiring great businesspeople. Before, I didn't know about the meaning of constrained company.
8. After reading the case study, I learned that ArsDigita got very famous in the startup world because it became the embodiment of a new model for software consulting and as an all-too-colorful example of the dangers of venture capital. Before, I didn't know anything about software consulting startups.
9. After reading the case study, I learned that the company had more women than any other firms. Before, I thought that this is very unusual.
10. After reading the case study, I learned that programmers are very unlikable people that are very tough and unpleasant to manage. Before, I thought that being a programmer is cool.

Joel Spolsky
Cofounder, Fog Creek Software

Joel Spolsky founded Fog Creek Software together with his friend Michael Pryor in 2000 without any specific product in mind.

Fog Creek Software was started with the motivation to have a kind of software company where people would want to work with the very idea of having the programmers as the stars. And the key inspiration to this idea, that made Spolsky leap into starting Fog Creek, was Philip Greenspun of ArsDigita who created an environment where programmers are like professionals.

The problem that this startup addressed was that they gave their attention to a problem which is really not. They thought that they had the sales and marketing problem where in fact they had none, and so they wasted some of their time and they just focused on the software they're doing later.

The cofounders offered software for an internal bug-tracking application. People need this software that Fog Creek offered because there are bugs in their stuffs that are not easily identified and tracked and this answers their problem making it still hit even though the price is raised a couple of times.

It had an impact in the history of the Internet in a way that it made software startups and other people realize that creating a blog would be a good strategy to help them get the attention of potential customers. The startup ArsDigita absolutely influenced this startup.

What's unique about this startup was that it never took any outside investment to hit. It just took the founder a weblog that had million of readers every month from around the world. Their startup was something that was already offered and done before.

The existing system was just applications for bug tracking. But the startup of Spolsky turned out into a real software for tracking bugs.

If I were in the cofounder's shoes, I would have also created a weblog for my software. I have been into making weblogs and I knew that this is a very good way for advertisement because many people are into Internet already and research is just a one click away. I think, I would have just not looked for a company that would sell and market my products because the idea almost put them in a scenario where their products would have disappeared.

I think the startup would have been possible in a Third World Country because it didn't took any investments to be marketed. It is a very great help for a country that has limited resources specifically when it comes to financial. The peculiar characteristic of the startup was that it was an investment-free startup that became famous through the weblog the founder did which is Joel on Softwares.

10 THINGS I DIDNT KNOW:

1. After reading the case study, I learned that Fog Creek Software was founded by Joel Spolsky with Michael Pryor in 2000. Before, I didn't know anything about Joel Spolsky or Michael Pryor.
2. After reading the case study, I learned that Fog Creek was inspired by Philip Greenspun of ArsDigita and his importance for programmers. Before, I have heard and read about the startup of Philip Greenspun but I didn't know that it inspired Fog Creek.
3. After reading the case study, I learned that the startup's initial product was a bug-tracking application. Before, I didn't know anything about bug-tracking application and that it was sold by Fog Creek.
4. After reading the case study, I learned that Fog Creek was an investment-free software company. Before, I didn't know that there are products that need not to be invested upon.
5. After reading the case study, I learned that FogBugz got famous and became a hit only because of the weblog Joel on Software the founder created. Before, I didn't know that a weblog could be a good way of promoting your product.
6. After reading the case study, I learned that Joel Spolsky also created a working environment in his company where programmers are given great importance. Before, I thought that it was just Philip Greenspun of ArsDigita.
7. After reading the case study, I learned that Fog Creek Software also became a software consulting company. Before, I didn't know anything about Fog Creek Software.
8. After reading the case study, I learned that the company was built in a place where there are no software companies and that was in New York City. Before, I didn't know that there are no software companies in this place.
9. After reading the case study, I learned that there are very few technology companies in New York City because its choices are more on investment banks, some hospitals, and advertising agencies. Before, I thought that there are also many technology companies here.
10. After reading the case study, I learned that it doesn't have to come to a point where you need to come to another big company to have your startup acquired and market it because it would not always lead to a good outcome. Before, I thought that acquisitions are cool.

Stephen Kaufer
Cofounder, TripAdvisor

Stephen Kaufer founded TripAdvisor together with Langley Steinert, Nick Shanny, and Thomas Palka.

It started when Kaufer and his wife Caroline tried to find a vacation for them and found out in the Internet some chat rooms that tell that the island recommended by the travel agent was not safe. It was then that his wife suggested that he build a better search engine to find what he's looking for in an unpublished and unbiased opinion about a place.

The particular problem that this startup addressed was when they had the biggest challenge in sales and marketing and business development because they didn't have any takers. A company finally came and talked to them about considering a deal wherein their database will be licensed and they will be offered \$50,000 a month only to find out that the company would just want to do the deal for two years and will walk away with all of their intellectual property.

People were using the site because just like Stephen Kaufer before, they also needed informations about a certain place they would want to have their vacation. And this service was offered by TripAdvisor.

It had an impact in the history of the Internet in a way that it contributed to developing the use of the Internet for web searches specifically when it comes to travels. It used Internet as the medium where people could contribute their personal reviews about destinations, hotels, and attractions.

What's unique about this startup was that there was a give-and-take relationship here wherein TripAdvisor.com would feed people ideas about certain destinations that they would want to know, and these same people would give back to the site that helped them make a decision by sharing their personal experiences about a certain place they had gone through personal reviews.

If I were in the cofounder's shoes, I would have also not closed a deal with the company that's going to take my intellectual property away after two years with the reason that they have been funding a lot of money in the creation of the database.

This startup would have been possible in a Third World Country since places here are already into the Internet thing. And since places here need ways of promoting tourism without needing to put a big investment, then they could also think of this. The peculiar characteristic that allowed it to flourish where it has been conceived was that it was built with the opinions of readers about certain places they had gone through. Moreover, it had a give-and-take relationship too that lasted long because of trust.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that TripAdvisor was built out of the very great suggestion from a house wife. Before, I didn't know anything about TripAdvisor and how it was built.
2. After reading the case study, I learned that TripAdvisor is a site for people who need backgrounds about certain destinations. Before, I knew that there are sites like this such as Yahoo Travel but I didn't know that TripAdvisor also offers this.
3. After reading the case study, I learned that TripAdvisor became the largest online travel company in the world. Before, I didn't know that it was the largest online travel company.
4. After reading the case study, I learned that their great competitor was when no one else is using their stuff. Before, I didn't know that it's really considered a competitor.
5. After reading the case study, I learned that the company didn't have any investments for the opinions of people. These reviewers never were paid, instead, they voluntarily do it. Before, I didn't know that it could be possible.
6. After reading the case study, I learned that the company was never sued even though there are many negative posts from people about hotels or other destinations because they are protected under the law. Before, I thought that it's always possible for a site having negative posts about establishments to be sued.
7. After reading the case study, I learned that you should not get too attached to your vision in a startup because things may change. Before, I thought that you need to always look at your vision so that you'll be focused.
8. After reading the case study, I learned that Expedia was the first client of TripAdvisor. Before, I didn't know anything about Expedia.
9. After reading the case study, I learned that a lot of startups that are based strongly on technology don't have the luxury of having a business guy as one of the founders. Before, I didn't know about this idea.
10. After reading the case study, I learned that TripAdvisor had techniques to detect the sort of fraud wherein hotel owners would tell all of their employees to write wonderful reviews of the property. Before, I didn't know that the idea of that spam would be possible.

James Hong
Cofounder, HOT or NOT

James Hong launched HOT or NOT together with his friend Jim Young. It was just built for fun wherein the site would let users submit their photos and have others vote on their “hotness” on a scale of 1 to 10.

This idea just popped up into Hong’s head while looking for a job in 2000, when Jim Young mentioned a girl he met at the party and thought that she was a perfect 10. With that, Hong thought of having a service where people could post their pictures into the system, and the other people could rate them from 1 to 10.

The first problem their startup addressed was getting rid of the huge bandwidth driven by pictures which took the users 30 seconds to get to the next picture. They also addressed porno issues because of some users submitting naked photos. Another problem they addressed when they started HOT or NOT was the initial name of it which is “Am I Hot?” because they got a cease and desist letter from a site which is also named “Am I Hot.” Good thing it was resolved by letting the latter site keep their name and Hong just rebrand the company to HOT or NOT. The concept about HOT or NOT was totally new and edgy, and no one had ever seen or thought about it anymore.

People used the service because for guys, looking at hot chicks and scaling them is fun. At the same time, girls also loved looking at handsome guys. Moreover, the idea for dating was a hit because it increased some women’s self-esteem with the idea that dating would suddenly make them hot and cool.

In the history of the Internet, it had an impact in a way that it used the essence of technology like the Internet to build good relationships between opposite sexes and at the same time, it helped in the improvement and wide knowledge about the Internet.

What’s unique about this startup is the same service it offers wherein physical appearances of users who submitted their photos will be rated or scaled from 1 to 10 by other users. This startup was something that was never offered nor done before.

If I were in the cofounder’s shoes, I would have also not accepted naked photos of users because that will only ruin my business. But then, I would have accepted some acquisition offers because startups like this would not be a hit anymore after some time. If they had accepted one, they’ll have an assurance of big money and they could then proceed to another startup.

The startup would have been possible in a Third World Country because places in this area already have knowledge about the Internet. The peculiar characteristic that it had was that it was something very worldly. People liked it and that became a hit.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that HOT or NOT is a site wherein photos submitted by users are scaled from 1 to 10 by other users. Before, I didn't know anything about HOT or NOT.
2. After reading the case study, I learned that James Hong and Jim Young cofounded HOT or NOT. Before, I didn't know about them.
3. After reading the case study, I learned that the initial problem of this startup was getting rid of the huge bandwidth driven by the pictures. Before, I didn't know that this was their initial problem.
4. After reading the case study, I learned that there are also parents who consider and have fun on pornography. Before, I didn't know that there are some.
5. After reading the case study, I learned that sites that copy other sites' name are also sued. Before, I didn't know about this matter.
6. After reading the case study, I learned that this was the first startup that let users vote other users' pictures. Before, I didn't know that this was the first.
7. After reading the case study, I learned that dating for a monthly fee was the way they found to generate revenue from the site. Before, I didn't know that dating via Internet could also be a means of getting revenue.
8. After reading the case study, I learned that Ofoto hosted the photos submitted to HOT or NOT by users. Before, I didn't know that Ofoto host this site.
9. After reading the case study, I learned that the site was just emailed to Hong's 40 friends and they got forty thousand hits on the first day of its launch. Before, I thought that it got known through a lot of advertisements before it was totally launched.
10. After reading the case study, I learned that HOT or NOT remains to be a stand-alone company despite many acquisition offers. Before, I thought that it's also acquired already.

**James Currier
Founder, Tickle**

James Currier founded Tickle (formerly Emode) in 1999.

After it was acquired by Monster in 2004 for about \$100 million, Currier founded Ooga Labs which is a digital media studio that develops consumer Internet Applications.

He started it after having taken a personality test in one of his Harvard Business School classes because he got interested with the people who talked about the result of the test for two weeks. He then thought that testing could be incredibly powerful because people love talking about themselves, love talking about people they know, and he knew it could really be viral.

The particular problem his startup addressed mostly just had to do with his employees. An example is his VP of engineering whom they needed to let go because he wasn't working out but they had a problem with him because he seemed unstable. Another thing was his head of HR whom he trusted to create a maternity leave policy without knowing that she was already pregnant at the time but just didn't tell them until after a few weeks. The problem was that the policy she created suggests 5 months maternity leave with full payment should be given to pregnant employees. And the outcome was that several of them have off salary since they were running out of money. I think this startup was an improvement of something that existed before and that something is the paper and pencil system for personal testing.

People used the service offered by tickle because aside from their interest with anxiety, parenting, relationship, and communication tests; they also love to have fun tests which will let them talk about themselves to other people.

It had an impact in the history of Internet in a way that it had paved way for the Internet to be known to be a good way of taking online personality tests. Moreover, fun tests could also be done through the Internet.

What's unique about this startup was that it was something that let people know themselves better and talk about it to others. It, I believe, increased self-esteem because people tend to realize what their strengths are.

The existing system for these different kinds of personality tests were tests made on papers and pencils wherein circles are filled out that answers the questions of the test.

If I were in the founder's shoes, I would have also pursued this idea that I had even though people I've been talking about it with doesn't seem to understand what I was talking about. But then, I would not just trust my employees so easily the way he did.

I think, the startup would have been possible in a Third world country because places in this area are already into the Web thing and so, they could have also thought of this idea. The peculiar characteristic that this startup had was that it was something that's based on people's personality. It flourished in the place where it was conceived because people here loved talking about themselves and Tickle has become one good media for it.

10 THINGS I DIND'T KNOW:

1. After reading the case study, I learned that Tickle is a site wherein people could take different kinds of test that has something to do with knowing themselves better. Before, I didn't know about Tickle.
2. After reading the case study, I learned that the founder, which is James Currier, was also a former venture capitalist. Before, I didn't know that he was the one who founded Tickle.
3. After reading the case study, I learned that people tend to not have an interest with an idea that nothing about it exists yet. Before, I thought that this is not true because there are some who could easily understand your ideas even though nothing about it exists yet.
4. After reading the case study, I learned that Emode was the initial name of Tickle. Before, I didn't know that Tickle had a former name.
5. After reading the case study, I learned that people tend to be really self-centered that talking about them for a long time is not that very hard and tiring. Before, I thought that talking about you to other people for a very long period of time is so very boring.
6. After reading the case study, I learned that iVillage tried to copy Tickle but failed. Before, I didn't know anything about iVillage.
7. After reading the case study, I learned that Currier's main problem on the startup was about his employees because he had a mistake on hiring them. Before, I didn't know that this became the main problem of Tickle.
8. After reading the case study, I learned that the founder of Tickle almost didn't marry his wife because of Tickle. Before, I didn't know that this could also happen when you really had the passion to make your startup work.
9. After reading the case study, I learned that after hiring a VP of engineering, Currier had the time to marry his wife. Before, I didn't know anything about this.
10. After reading the case study, I learned that Monster acquired tickle for about \$100 million. Before, I didn't know that Tickle was acquired.

Blake Ross
Creator, Firefox

Blake Ross and Dave Hyatt were the cofounders of Firefox. In 2005, Ross worked with his fellow Firefox developer Joe Hewitt to start Parakey.

Initially, Firefox was just a side project developed by Ross and Hyatt while working at the Mozilla Foundation and trying to revive the struggling Netscape browser. What happened was that they got frustrated with the constraints imposed on them by the different functional areas of Netscape. That's the time they started to work on a browser that is fast, simpler, and reliable, and that they knew they could make if they weren't being controlled by marketing, sales, and all other influences inside Netscape.

The only thing that bothered Firefox was the fact that Microsoft seems completely driven by competition and came back again with their Internet Explorer 7. The thing is, they have already bowed out working on and developing Internet Explorer in 2001. But competition with Firefox triggered them to come back.

I think, people used the service because at the time, they were not happy with the browser they were using. So, when Firefox launched its web browser, they really loved its simplicity making them go crazy over tabbed browsing.

Its impact in the history of the Internet is that it made people easily have an access to the Internet by the browser the startup offered. Netscape influenced the startup in a sense that the cofounders responded to their experience at Netscape by starting on a browser which is the Firefox. When it came out to market; Microsoft, who had abandoned their dominant browser Internet Explorer, came back with its Internet Explorer 7 to compete with them.

What's unique about this startup was that the company never worried about competition for financial reasons because money was just always sort of there when they did Firefox. The browser they offered was something Internet Explorer and Netscape had already done and offered before.

The existing system before was a browser which just turned out to be no more than a vehicle to drive people to Netscape.com where search buttons and advertisements were everywhere. Aside from that, it didn't focus on users.

If I were in the cofounder's shoes, I would have also ignored all those things others were saying against what were doing and just work on it. But then, I would have not, in a way, quitted what I was working with just because the stakes were low and because of our idea that Microsoft wasn't coming back any time soon.

I think that the startup would have not been possible in a Third World Country because there were few technology companies here working with browsers and so, they wouldn't have any ideas how it works and how it could be created.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that Blake Ross and Dave Hyatt started Firefox at the Mozilla Foundation. Before, I didn't know anything about Blake Ross and Dave Hyatt.
2. After reading the case study, I learned that it was just initially a side project made out of frustration. Before, I didn't know that it was just a side project.
3. After reading the case study, I learned that the initial version of Firefox was Phoenix launched in 2002. Before, I didn't know that Firefox had an initial version.
4. After reading the case study, I learned that Internet Explorer had been disbanded by Microsoft in 2001. Before, I didn't know that it had been disbanded.
5. After reading the case study, I learned that the name Firefox was a Chinese name for red panda. Before, I didn't know that the Chinese name for red panda was Firefox.
6. After reading the case study, I learned that Firefox was very different from traditional startups in a sense that they didn't worry about usual competitive threats like the ones for financial reasons. Before, I didn't know that they didn't worry too much about this competition.
7. After reading the case study, I learned that Firefox used an all-word-of-mouth marketing when they launched Firefox. Before, I didn't know about all word-of-mouth marketing.
8. After reading the case study, I learned that Firefox catered to their bloggers first before their primary target audience because they knew that once they get the prominent bloggers, they could attract many connections like the intermediate press. Before, I didn't know how important blogging was to a certain startup.
9. After reading the case study, I learned that Firefox was an open source project ran like a startup. Before, I didn't know that it was not a startup but an open source project.
10. After reading the case study, I learned that Blake Ross started a new startup in 2005 with Joe Hewitt which is Parakey. Before, I didn't know that Ross is now into this startup.

**Mena Trott
Cofounder, Six Apart**

Mena and Ben Trott started Six Apart in their apartment in 2001. The name of their company was named for the number of days between their birthdays.

In October 2001, they launched movable type that almost immediately became popular. Then, they launched their hosted service Typepad later the fall of 2003. And in 2006, they launched a hosted blogging platform called Vox with a social networking component.

Initially, Mena Trott was working on a blog called Dollarshort in April of 2001 that got really popular. But when the blogging company closed, they got laid off which made them think of developing their own blogging tool that would just be released as donation ware.

The problem the startup addressed was that the cofounders were trying to do everything with just the two of them with their health at expense. Aside from that, their startup often replaces the stuff they have already bought because of their worry about costs.

The product they offer was an improvement of blogging software available at the time which Mena Trott got dissatisfied with.

I think people used their products because these are not just for professionals, who had expertise in installing server software, but also for people coming to blogging with less experience wherein they could just drag items into their templates.

It had an impact in the history of the Internet in a way that it helped find a way in improving and developing the uses internet could offer such as this blogging software wherein blogs could be available in the Internet.

What's unique about this startup was that its cofounders were married couples, who, at first, were just working on themselves trying to do everything for their company without hiring anybody. Moreover, they didn't have much expense on this startup because they just got donations with considerable factors from their users such as availing their product. The product they offer was something already offered and done before, and that's where they really got the idea of their startup. But, the thing is that the existing blogging software was not that nice to make a blog with.

If I were in the cofounder's shoes, I would have also done a blog site to be connected to many friends because this is really one way of doing so. But then, I would not just have thought of the idea not to hire people that could help them with their company at first.

This startup would have been possible in a Third World Country since most people have already knew stuffs about blogging which would trigger them also to develop their own if they got dissatisfied with the one they have used. The peculiar characteristic that it had was that the startup offered products and services suitable with the needs and skills of their prospective users. The startup was very flexible with the variance among people that would use it.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that the cofounders of Six Apart were husband and wife namely Mena and Ben Trott. Before reading the case study, I didn't know that they were the cofounders of Six Apart.
2. After reading the case study, I learned that the company was about stuffs regarding blogging. Before, I didn't know that the startup was about blogging and offered blogging tools and services.
3. After reading the case study, I learned that the first product of Six Apart launched was Movable type. Before, I didn't know anything about Movable Type.
4. After reading the case study, I learned that TypePad was a hosted service for people coming to blogging with less experience. Before, I didn't know that it was a hosted service different from Movable type.
5. After reading the case study, I learned that their startup's idea was got from the dissatisfaction of Mena Trott with the blog she had used before. Before, I didn't know the motivation or the reason they worked on this startup.
6. After reading the case study, I learned that Movable Type is download software that could be installed in one's own server. Before, I didn't know anything about Movable Type.
7. After reading the case study, I learned that people just donated to them and they never asked for money while doing this startup. Before, I didn't know that people would donate money for startups like this.
8. After reading the case study, I learned that the initial idea they had was to form a company that can't take investors. Before, I didn't know that this si possible.
9. After reading the case study, I learned that the startup had this strict license that says no one can make money off the stuff that they're not making money off. Before, I didn't know that this licensing could be made.
10. After reading the case study, I learned that the blogging tool was just released as donation aware. Before, I didn't know that it was.

Bob Davis
Founder

Lycos

Lycos was started in 1995 by Bob Davis when CMGI's investment group @Ventures bought the search engine of Michael Mauldin at Carnegie Melton University.

Bob Davis, after having sold Lycos to Terra Networks at \$5.4 billion, is now also a managing general partner at venture capital firm Highland Capital.

The motivation they had to work on this startup was mainly because of the technology they already had which they knew would be something.

The particular problem their startup was addressing is the thirst of people for searching information in the Internet.

Their startup, I think was an improvement of something that already existed before.

I think, people used the services of the startup because they needed a site wherein they could easily search for the information they want. And this was offered by the startup- an online search engine.

Internet was pictured then as a giant card catalog in the Library of Congress wherein users could easily search information they needed and that's how their startup had an impact in the history of the Internet. After it went to market, other startups like Google followed and became the most user friendly online search engine.

What's unique about this startup was that it was more so with the consumer by positioning and branding their company in terms of what they wanted to be, which is to be this safe, comfortable environment for those who were just exploring and figuring out the features of the Internet. They tried to be purposeful in what they do. Their service was something already offered before because it so happened that Yahoo and Infoseek were already there when they incorporated.

As for me, the existing system was this library system wherein you have to look first for the category of the information you need in the card catalogs and look for it in the shelves of the library.

If I were in the cofounder's shoes, I would have also focused on hiring and building customers through my sales team because advertisement is really important in a company like theirs to succeed.

I think, the startup would have been possible in a Third World Country because people are by nature looking for convenience. They become innovative to ease the task that's very difficult for them to the point of being resourceful. Since these Third World Countries already have knowledge in the technology and Internet, they would have also thought of that. The startup's service too would have applications in a Third World Country.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that the search engine technology was developed by another person- Michael Mauldin, and not by Bob Davis. Before, I didn't know who Michael Mauldin or Bob Davis is.
2. After reading the case study, I learned that the first paying customer of Lycos was AT&T. Before, I didn't know about their first paying customer.
3. After reading the case study, I learned that Google didn't exist early on where they were in the market. Before, I thought that Lycos was later than Google.
4. After reading the case study, I learned that Yahoo was their main competitor at the time. Before, I didn't know their main competitor.
5. After reading the case study, I learned that Lycos became a large national advertiser. Before, I didn't know that they focused more on different advertisements for their company.
6. After reading the case study, I learned that trading products in return for impressions was a form of advertising. Before, I didn't know about it.
7. After reading the case study, I learned that Lycos offers an online search engine. Before, I didn't know the service of Lycos.
8. After reading the case study, I learned that Lycos was acquired in 2000 by Terra Networks. Before, I didn't know that it was acquired.
9. After reading the case study, I learned that Lycos's original technology came out of Carnegie Mellon University. Before, I didn't know anything about how their technology originated.
10. After reading the case study, I learned that the first technology of Lycos which is the search engine was just a research project. Before, I didn't know that it was one.

Ron Gruner
Cofounder, Alliant Computer Systems
Founder, Shareholder.com

In 1982, Alliant Computer Systems was founded and one of the cofounders was Ron Gruner. He founded it with Craig Mundie and Rich McAndrew. But after the company lost its way and Gruner left in 1991, he started a company and founded in 1992 Shareholder.com.

Alliant was started with the idea that this technology, which they called parallel processing, would be a hit and a good business opportunity if commercialized because of it being entirely new. With Shareholder.com, it was started out of the notion of commercializing technology around shareholder communications.

The particular problem Alliant was addressing was the slowness of computers in running programs. And this parallel processing technology they had was something entirely new. With Shareholders.com, the particular problem their startup was addressing was the high cost and long process cycle time of giving quarterly reports to interested shareholders and the proposed system of Gruner was something was something entirely new.

People used the technology of Alliant because people are into high-performance but cheap computers. Clients of Shareholder.com used their services because they wanted faster way of showing quarterly reports to shareholders. Moreover, they were able to build a corporate website linked through shareholders.com.

Shareholder.com's impact in the history of the Internet is that it introduced another feature Internet could offer and that is through their web service.

What's unique about their startup was that it gave attention not only to major shareholders but also to middle tier and small tier who are commonly ignored in a shareholder communications area. And their startup was something that was never offered nor done before.

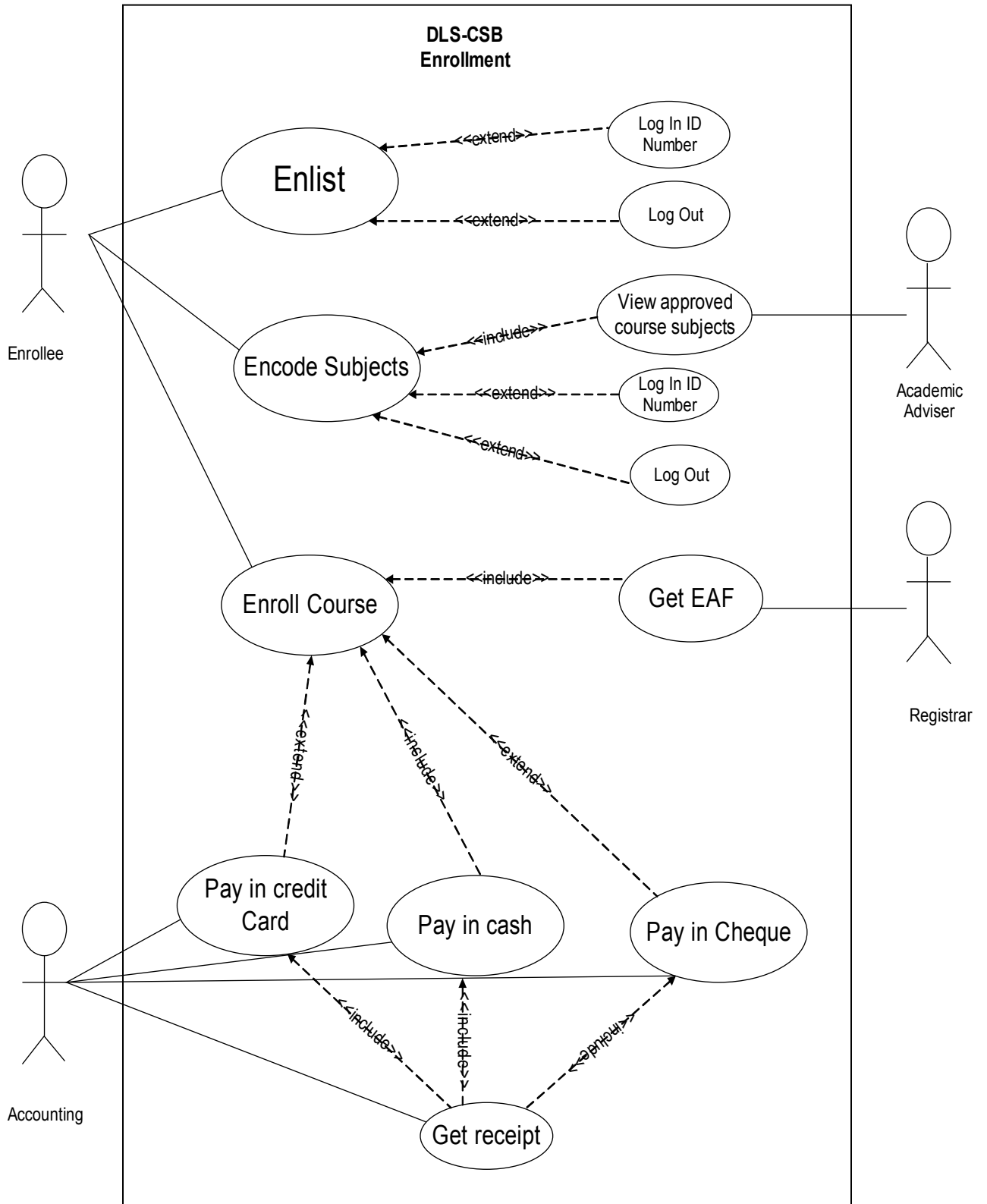
The existing system was the telephone-based system of showing quarterly reports to shareholders. The proposed system was web-based system of showing quarterly reports wherein clients would link to shareholders.com and build their corporate website where interested shareholders would acquire shareholder information.

I think the startup would have been possible in a Third World Country because there are also business-minded people in these areas which are not just business-minded but also technology-minded. And basically, this startup's service would also have applications in Third World Countries.

10 THINGS I DIDN'T KNOW:

1. After reading the case study, I learned that Ron Gruner first founded Alliant Computer Systems with his other cofounders before starting Shareholder.com. Before, I didn't know about Ron Gruner.
2. After reading the case study, I learned that Alliant Computer Systems offers a parallel processing technology for high-performance computers. Before, I didn't know about Alliant Computer Systems.
3. After reading the case study, I learned that Ron Gruner's company offered a telephone based technology for shareholders that are toll-free. Before, I didn't know about the offered service of the company.
4. After reading the case study, I learned that Gruner's company was changed to a web-based company which is now shareholder.com after the development of the web. Before, I didn't know that it also got web-based.
5. After reading the case study, I learned that shareholder.com got Campbell's soup as one of its earliest clients where they first had a corporate website through them. Before, I didn't know about shareholder.com's clients.
6. After reading the case study, I learned that Kleiner Perkins was the premier venture capital firm at the time Alliant Computer Systems was started. Before, I didn't know about the premier venture capital firm at the time.
7. After reading the case study, I learned that Gruner became the CEO of Alliant Computer Systems for 10 years. Before, I didn't know that he became a CEO.
8. After reading the case study, I learned that the most serious competitor shareholder.com had was also a Boston-based company called CCBN. Before, I didn't know anything about their competitors.
9. After reading the case study, I learned that Craig Mundie and Rich McAndrew were Gruner's cofounders in Alliant Computer Systems. Before, I didn't know about his cofounders.
10. After reading the case study, I learned that shareholder.com was acquired by NASDAQ in February 2006. Before, I didn't know that the startup was acquired.

Use Cases



USE CASE

USE CASE NARRATIVE

Identification Summary:

Title: Enroll course at De La Salle- College of St. Benilde.

Summary: This use case lets the regular student of DLS-CSB to enroll courses offered by the college.

Actors: Enrollee

Accounting

Registrar

Academic Adviser

Creation Date: June 5, 2008

Date of Update: none

Person in Charge: Ruth Ann S. Basnillo

Flow of Events:

Preconditions:

1. DLS-CSB must offer open courses.
2. DLS-CSB must have technologies like computers to allow students to enlist and encode course subjects.
3. The enrollee must be able to log in through his/her ID number.
4. There must be an interface for the student's encoding and enlistment.
5. The registrar must have papers for the EAF.
6. The Accounting must have papers for the receipts.
7. There should be electricity for the computers to run.

Main Success Scenario:

1. The enrollee logs in to the enlistment and encoding interface.
2. The enrollee encodes the course subjects.
3. The enrollee enrolls the course.
4. The enrollee pays at the Accounting.

Alternative Scenario:

A1. Incorrect ID number.

A warning window informs the enrollee that the ID number logged in is incorrect for the 1st and 2nd time.

A2. Incorrect password.

A warning window informs the enrollee that the password is incorrect for the 1st and 2nd time.

A3. Account not activated.

A warning window informs the enrollee that the account has expired and needs to be reactivated.

A4. There are no available schedules for the subject.

A5. There is a pending clearance.

The enrollee can't enlist. Pending clearances are displayed.

Error Sequence:

E1. The enlisted subjects were not approved.

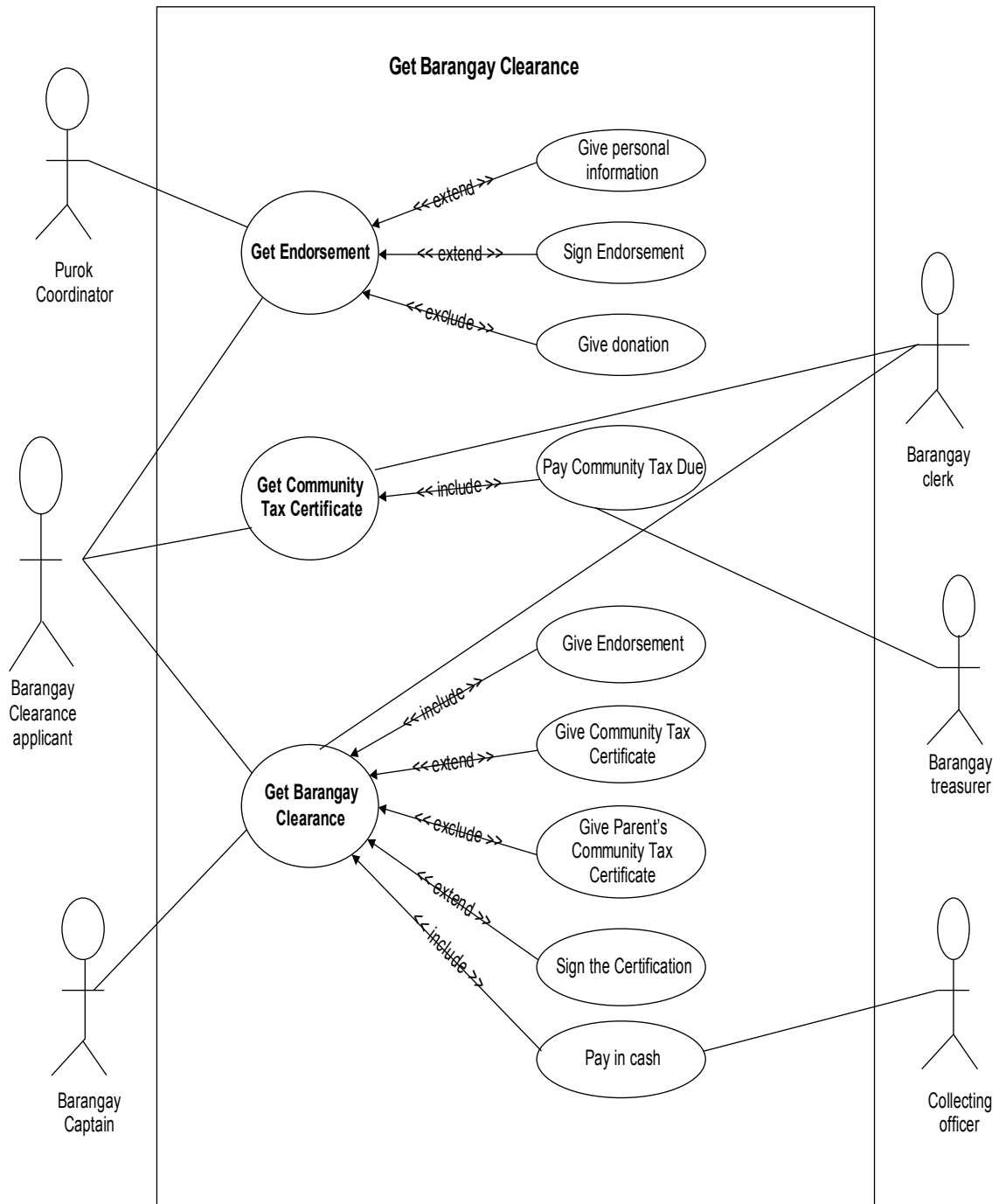
The enrollee didn't pass the prerequisites for the subjects enlisted. Use case fails.

E2. The enrollee didn't pay on the due time.

The enrollee will be asked to fill up a form requesting him/her for a "Forced Leave".

Post Conditions:

1. The subjects available are lessened.
2. The slots for the schedule are lessened.
3. The papers for EAF are lessened.
4. The papers for receipts are lessened.
5. The ink of different computers involved is lessened.
6. The electricity consumption rises.
7. The enrollee is officially enrolled



USE CASE

Use Case Narrative

Identification Summary

Title: Get Barangay Clearance

Summary: This use case states how an applicant for Barangay Clearance could get a barangay clearance in a barangay.

Actors: Barangay Clearance applicant

Barangay captain

Purok coordinator

Barangay treasurer

Collecting officer

Barangay clerk

Creation Date: June 11, 2008

Person in charge: Ruth Ann S. Basnillo

Flow of Events

Preconditions:

1. The purok and barangay office hours should be made known to the public.
2. The purok and barangay officers should be in their respective offices on office hours.
3. There should be prepared forms for the endorsement, Community tax Certificate, and Barangay Clearance.
4. The purok and barangay offices should have technologies (e.g. computers, typewriters) for encoding of personal informations, and electricity for it.
5. There should be a rule that applicants that need Community tax Certificate must be 18 years old and above.

Alternative Sequences:

A1: The Barangay Clearance applicant has pending case or derogatory record.

Purok coordinator will inform the applicant that he/ she can't be given endorsement for legal purposes such as Barangay Clearance because of his/ her pending case.

A2: The applicant is below 18 years old.

The Barangay clerk will not give the applicant Community Tax Certificate because he/ she is not yet 18 years old. Thus, he/ she will be

advised to give his/ her parent's Community tax Certificate to be able to get Barangay Clearance.

Error Sequences:

E1. Barangay Clearance applicant not a resident of that barangay

The applicant gives personal information that says he/ she is not a resident of the barangay where he/ she apply. Use case fails.

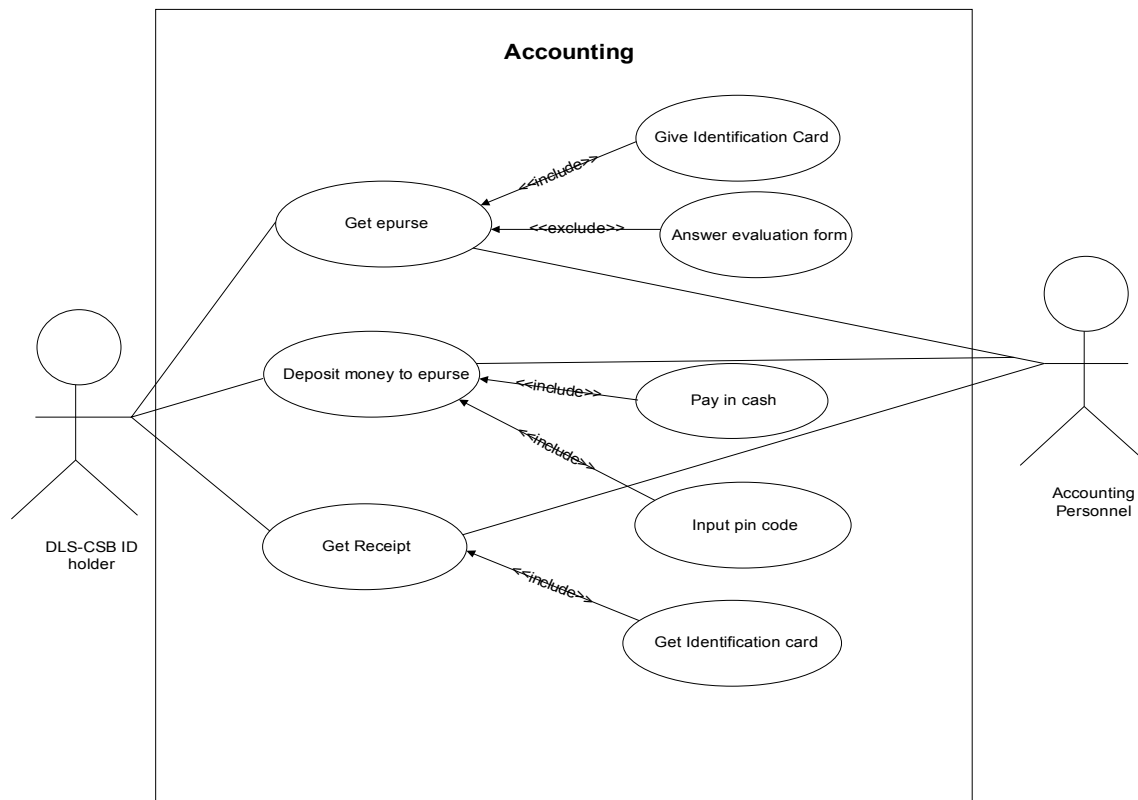
E2. Barangay Clearance applicant a wanted alien of the country

Purok coordinator traces that the applicant is a foreigner that has illegal transactions in the country. Purok coordinator calls police to arrest him and government deports him. Use case fails.

Post Condition:

1. The prepared forms for the endorsement, Community tax Certificate, and Barangay Clearance are lessened.
2. The electricity consumptions of the purok and barangay offices are increased.
3. The inks of the purok and barangay offices' computers or typewriters are lessened.
4. The purok and barangay offices' funds increase.
5. The applicant gets Barangay Clearance.

USE CASE



USE CASE NARRATIVE

Identification Summary

Title: Get epurse

Summary: This use case allows DLS-CSB ID holder to get epurse that could be used to pay fees in LRC, ACTC, and AKIC Cafeteria.

Actors: DLS-CSB ID holder
Accounting personnel

Creation Date: June 18, 2008

Person in charge: Ruth Ann S. Basnillo

Flow of events

Preconditions:

1. Accounting must have an epurse user interface.
2. Accounting must have an ID scanner that scans ID and directs it to the epurse interface.
3. Accounting must have money in case change is needed.

4. Accounting must have paper for receipts.

Main Success Scenario:

1. DLS-CSB ID holder gives ID card to Accounting Personnel.
2. DLS-CSB ID holder deposits money into the epurse.
3. DLS-CSB ID holder inputs pin code for epurse account.
4. DLS-CSB ID holder gets receipt for the transaction.
5. DLS-CSB ID holder gets ID card back.

Alternative Sequences:

A1. Lost ID

The holder lost his/her ID card. Accounting personnel informs the holder that ID is needed in getting epurse.

A2. DLS-CSB ID holder lacks money.

Accounting personnel informs the DLS-CSB ID holder that there is a minimum allowable amount that can be put in his/ her epurse.

A3. Invalid pin code

Accounting personnel informs the holder that 6 characters only are allowable for the pin code.

A4. No paper left for receipt

Accounting personnel informs the ID holder that receipt can't be given for the mean time.

Error Sequence:

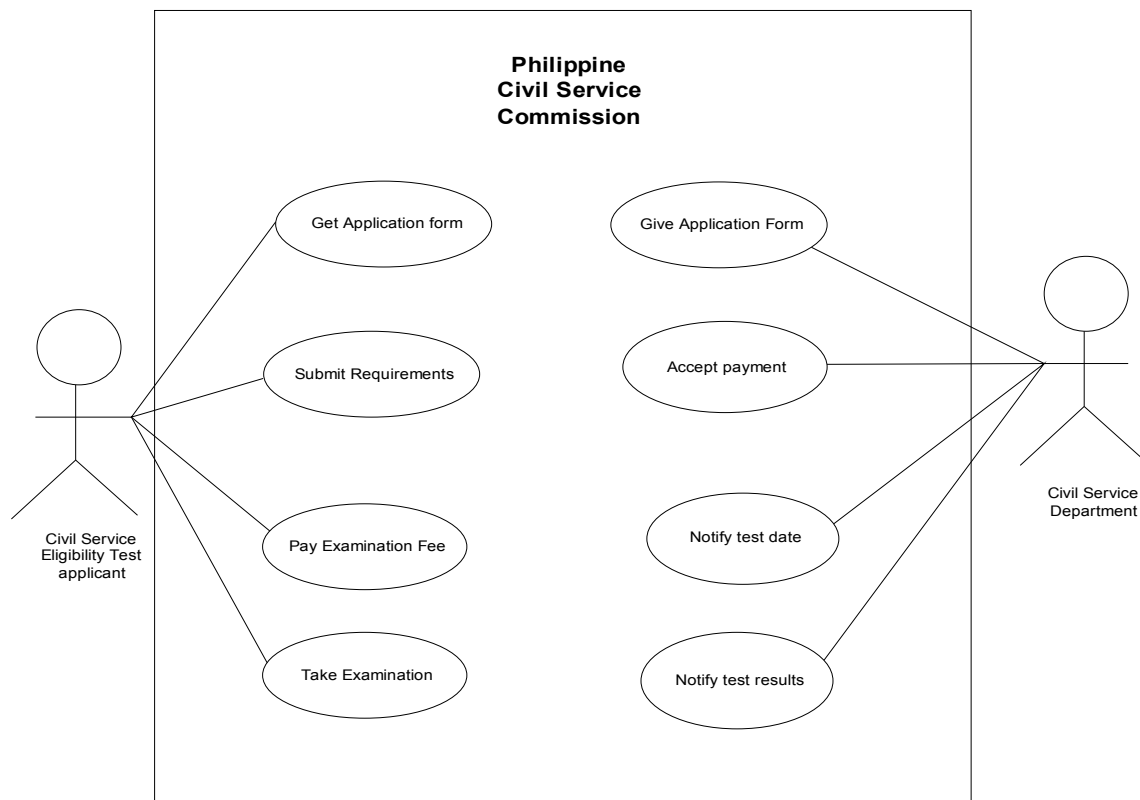
E1: Invalid ID card.

Accounting personnel informs the ID holder is not enrolled, thus, accounts are not activated. Use Case fails.

Post Conditions:

1. Papers for receipts are lessened.
2. Amount of money increases.
3. DLS-CSB ID holder gets epurse account.
4. Electricity Consumption increases.
5. Ink of computer for receipts is lessened.

USE CASE



USE CASE NARRATIVE

Identification Summary

Title: Apply Civil Service Eligibility Test
Summary: This use case allows a Civil Service applicant to take a civil service test for the government job position desired.
Actors: Civil Service Eligibility Test applicant
Civil Service Department
Examination Generation System
Creation Date: June 25, 2008
Date of Update: July 1, 2008
Person in charge: Ruth Ann S. Basnillo
Version: 1.0

Systems Analysis and Design/ Use Case 4

Flow of events

Preconditions:

1. Positions for testing must be publicly posted on job board.
2. Job announcement must give the job title, monthly salary, description of the work, minimum education and/or experience requirements needed to apply to take the test.
3. There must be an interface for the Examination Generation System.
4. The final filing date for applying must be noted in the posting.
5. Civil Service Eligibility Test applicant must apply for only one job per application.
6. Civil Service Eligibility Test applicant must put the official job title on the application form.
7. If there is an education requirement, original diplomas or an official transcript with the raised seal on it must be presented to the Civil Service Department.
8. If there is an optional licensing requirement, current, not yet expired licenses must be presented.
9. If Civil Service Eligibility test applicant changed address after having passed the application form, there is a need to notify the office about it.
10. If the same test is to be used for the next batch of test, Civil Service Department must not give the answers to the questions.
11. If examinations are not graded and qualifications are used to determine applicant's eligibility, names must be placed on a non-competitive eligibility list.
12. Civil Service Eligibility Test applicant must contact Certification office to find out if he/she is in the eligibility list.
13. Civil Service Department must release eligibility list names to the city departments doing the hiring.

Main Success Scenario:

1. Civil Service Eligibility Test applicant reads the Civil Service Commission posted job announcement.
2. Civil Service Eligibility Test applicant gets application form from the Civil Service Department.
3. Civil Service Eligibility Test applicant files filled out application form and other qualification requirements before the final filing date.
4. Civil Service Eligibility Test applicant is notified about the exam date through mail.
5. Civil Service Eligibility Test applicant takes the computerized examination on the stated exam date.
6. Civil Service Eligibility Test applicant gets the test results.
7. Civil Service Eligibility Test applicant contacts the Certification office to inquire if he/she is in the eligibility list.

Systems Analysis and Design/ Use Case 4

Alternative Sequences:

- A1. There is no posted job announcement.
 - b2. Civil Service Eligibility Test applicant inquires at the Application Desk.
 - b3. Application Desk informs the Civil Service Eligibility Test applicant that there are scheduled months for Civil Service Eligibility Test.
 - b4. Civil Service Eligibility Test applicant goes back on the scheduled month.
 - back to 1
- A2. Application Forms are out of stock.
 - c3. Application Desk tells the Civil Service Eligibility Test applicant to go back again to get application form.
 - c4. Civil Service Eligibility Test applicant goes back and acquires application form.
 - back to 2.
- A3. Civil Service Department is closed.
 - d4. Civil Service Eligibility Test applicant goes back to Civil Service Department to file the application form and qualification requirements.
 - back to 3
- A4. Civil Service Eligibility Test applicant didn't receive the notification mail.
 - e5. The mail sent by Civil Service Department was returned because the Civil Service Eligibility Test applicant changed address.
 - e6. Civil Service Eligibility Test applicant notifies the office about the changed address.
 - e7. The notification mail was sent to the Civil Service Eligibility Test applicant.
 - back to 4
- A5. Civil Service Eligibility Test applicant can't take the exam on the said date.
 - f6. Civil Service Department informs the Civil Service Eligibility Test applicant that the exam date is cancelled for some reasons.
 - f7. Civil Service Eligibility Test applicant goes back and takes the exam.
 - back to 5
- A6. Other's Civil Service exam result was sent to the Civil Service Eligibility Test applicant.
 - g7. Civil Service Eligibility Test applicant goes to Civil Service Department to inform them that the wrong Civil Service exam result was sent.
 - g8. Civil Service Department gives the right Civil Service exam result.
 - back to 6
- A7. Certification office can't be contacted.
 - h8. Civil Service Eligibility Test applicant informs that the office can't be contacted on the given contact number.

Systems Analysis and Design/ Use Case 4

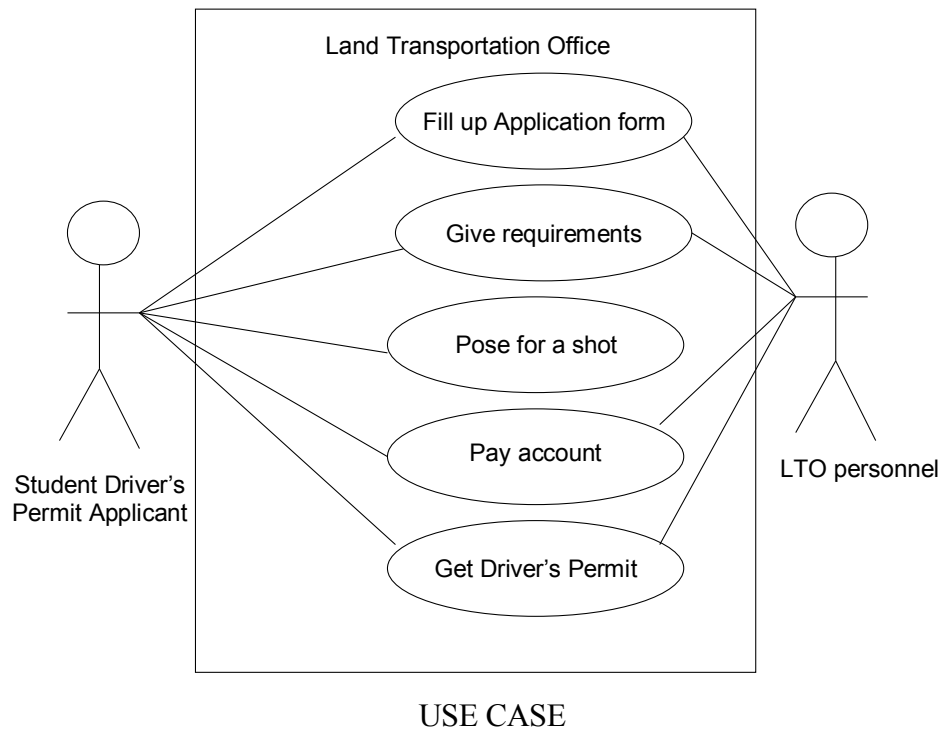
- h9. Civil Service Department informs the Certification office changed contact number.
 - h10. Civil Service Eligibility Test applicant goes directly to Certification Office.
 - h11. Civil Service Eligibility Test applicant finds out his/ her status on the list.
- back to 7

Error Sequence:

- E1: from 0
 - f2. The Civil Service Department is closed.
 - f4: Use case fails.back to 0
- E2: from 1
 - g3. Civil Service Eligibility exam was terminated
 - g4. Civil Service Eligibility Test applicant is informed that a certain government law terminated the Civil Service exam.
 - g5. Use case fails.back to 1.
- E3: from 3
 - h4. The Civil Service Eligibility Test applicant has not graduated yet.
 - h5: Civil Service Eligibility Test applicant is informed that he/ she must finish a certain course first and be graduated.
 - h6: Use case fails.

Post Conditions:

6. The Civil Service Eligibility Test Applicant is informed about the Civil Service Exam procedures.
7. The number of Civil Service Eligibility Test applicants increased.
8. Civil service Department's application form decreased.
9. The names of The Civil Service Eligibility Test examinees under Eligibility list increased.
10. The Civil Service Eligibility Test Applicant was able to take the Civil service Eligibility Test.
11. City departments can choose applicants under the eligibility list.



USE CASE NARRATIVE:

Identification Summary:

Title: Get Student Driver's permit

Summary: This use case allows Driver's Permit Applicant to get driver's permit from Land transportation office.

Actors: Driver's permit applicant

LTO personnel

Creation Date: August 1, 2008

Date of Update: August 22, 2008

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of Events:

Preconditions:

1. Applicant must be at the Land Transportation office.
2. LTO must be open.
3. Applicant must have already filled up application form.
4. Applicant must have given the requirements needed.
5. Applicant must have already posed for a shot of his picture.
6. Applicant must have already signed digitally.
7. Applicant must have already paid his accounts.
8. LTO must have paper for the permit.
9. LTO must have electricity.
10. LTO personnel must be available.
11. Applicant must be a student.

12. LTO must application form available.

Main Success Scenario:

1. Applicant gets the student driver's permit.

Alternative Scenarios:

A1: LTO personnel under break

from 0

b2. Applicant is informed that LTO personnel are currently under break.

b3. Applicant waits until the time the LTO personnel will return.

b4. Break of LTO personnel already done.

back to 0

A2: Requirements incomplete

from 0

c3. Applicant gives requirements.

c4. Applicant is informed that requirements are incomplete.

c5. Applicant gives complete requirements.

back to 0

A3: Applicant lacks money

from 1

d4. Applicant is informed that a certain amount must be paid to be able to get the driver's permit.

d5. Applicant informs LTO personnel that he would just go back.

d6. Applicant returns and pays account.

back to 1

Error Sequence:

E1: Land Transportation office is not available and is closed

from 0

f2. Applicant is informed that LTO is not available within the day.

f3. Use case fails.

back to 0

E2: No available application form

from 0

g3. Applicant is informed that the office ran out of application form.

g4. Use case fails.

back to 0

E3: Applicant has no money.

from 1

h4. Applicant is informed that a certain amount must be paid.

h5. Applicant informs LTO personnel that he has no money.

h6. Use case fails.

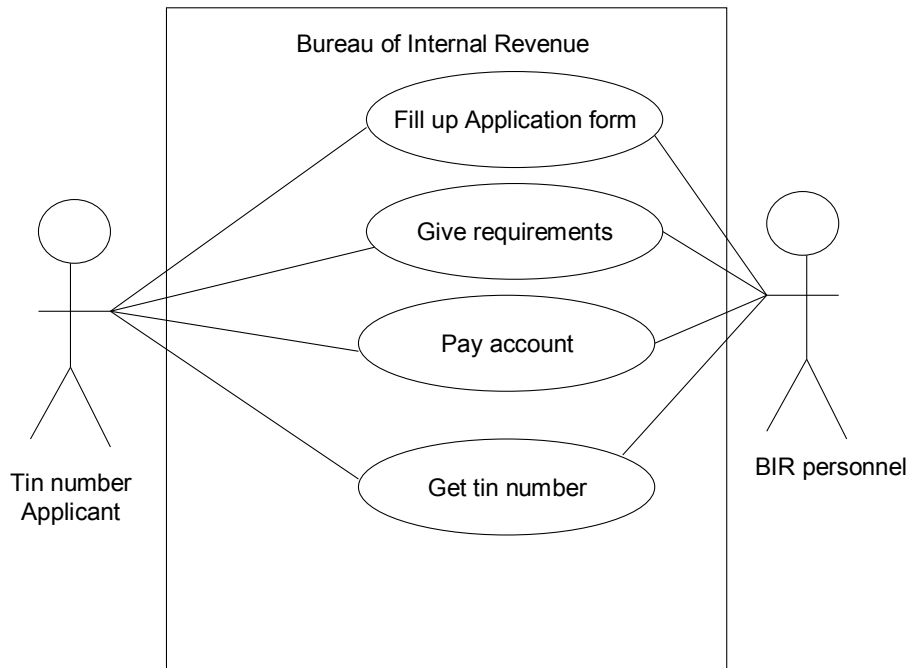
back to 1

Post Conditions:

Systems Analysis and Design/ Use Case 5

1. LTO's electricity consumption increases.
2. LTO's application form decreases.
3. LTO's computer ink decreases.
4. Applicant gets student driver's permit.

Ruth Ann S. Basnillo
SYSANAL
OOA
Use Case



USE CASE

USE CASE NARRATIVE

Identification Summary:

Title: Get tin number

Summary: This use case allows the tin number applicant to get tin number at Bureau of Internal Revenue Office.

Actors: Tin number applicant
BIR personnel

Creation date: August 4, 2008

Date of update: August 22, 2008

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of events:

Preconditions:

1. Applicant must have already filled up application form.
2. Applicant must have already given requirements to get tin number.
3. Applicant must have already paid account.
4. BIR office must be open.
5. BIR personnel must be available.
6. BIR must have an application form available.
7. BIR office must have electricity.
8. Applicant must have a letter of consent if still a minor.

Systems Analysis and Design/ Use Case 6

Main Success Scenario:

1. Tin number applicant gets tin number.

Alternative Scenario:

A1: BIR personnel on break

from 0

b2. Applicant is informed that BIR personnel are not available within the moment because he's under break.

b3. Applicant waits until BIR personnel returns.

b4. BIR personnel return.

back to 0

A2: Requirements incomplete

from 0

c3. Applicant gives requirements.

c4. Applicant is informed that requirements passed are incomplete.

c5. Applicant returns and gives requirements he lacks.

back to 0

a3: Applicant lacks money

from 1

d4. Applicant is informed that a certain amount must be completed first to get the tin number.

d6. Applicant informs that he lacks money.

d7. Applicant returns with complete amount of money.

back to 1

Error Sequence:

E1: BIR office closed

from 0

f2. Applicant is informed that the BIR office is closed.

f3. Use case fails.

back to 0

E2: No application form available

from 0

g3. Applicant is informed that they ran out of application forms.

g4. Use case fails.

back to 0

E3: No money to pay

from 1

h4. Applicant is informed that a certain amount of money must be paid to get tin number.

h5. Applicant informs that he has no money.

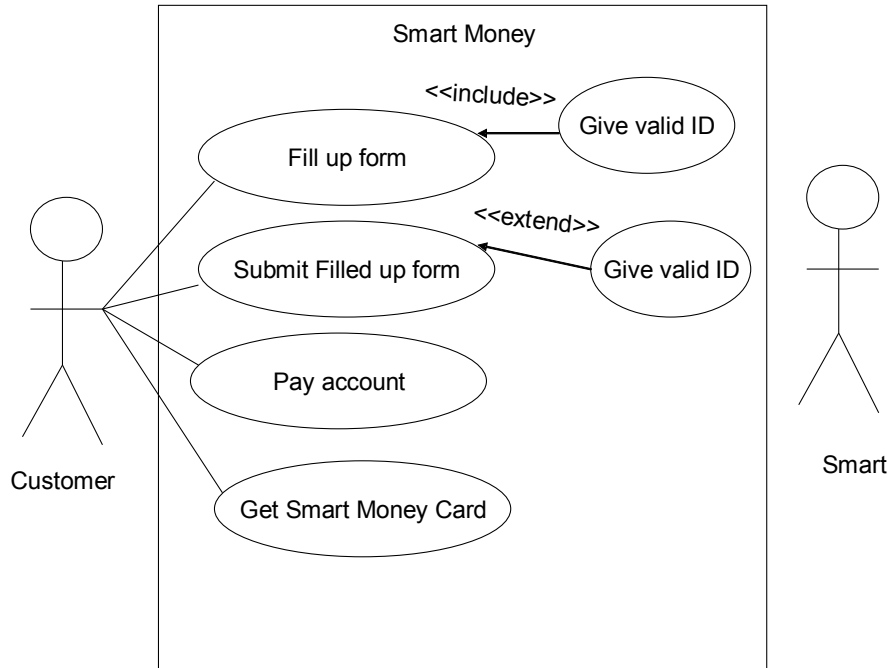
h6. Use case fails.

back to 1

Post conditions:

Systems Analysis and Design/ Use Case 6

1. Applicant gets tin number.
2. BIR's application form decreases.
3. Electricity consumption of BIR increases.



USE CASE

USE CASE NARRATIVE:

Identification Summary:

Title: Get Smart Money

Summary: This use case allows the customer to apply for and get Smart Money in Smart Money Wireless Centers.

Actors: Customer

Smart

Creation Date: August 8, 2008

Date of Update: August 22, 2008

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of Events:

Preconditions:

1. Customer must have a Smart sim number.
2. Customer must have already downloaded the Smart Money virtual number.
3. Customer must be at any Smart Wireless Center.
4. Customer must have money.
5. Customer must have a valid ID.

Main Success Scenario:

1. Customer fills up Smart Money Application Form.
2. Customer submits filled up form.
3. Customer pays account.
4. Customer gets Smart Money card.

Systems Analysis and Design/ Use Case 7

Alternative Scenarios:

A1: Customer has no Smart sim
from 0

b2. Customer buys Smart sim at the Smart Center.
back to 0

A2: Virtual number not yet downloaded
from 1

c3. Application form needs Smart Money virtual number.

c4. Customer is informed that virtual number needs to be
downloaded.

c5. Customer downloads Smart Money number through text.
back to 1

A3: Missing Application form
from 2

d4. Customer informs that Smart Money Application form is
missing.

d5. Customer is given a new Smart Money Application form.

d6. Customer fills up Smart Money Application form.

back to 2

A4: Customer lacks money
from 3

e5. Customer is informed that a certain amount must be paid.

e6. Customer informs that he currently lacks money.

e7. Customer gets money.

e8. Customer returns to Smart Center.

back to 3

A5: Customer has not included mailing address in application form
from 4

f6. Customer is informed that Smart Money card will be mailed after
2-3 weeks.

f7. Customer inquires at Smart Center after 3 week for the Smart
Money card.

f8. Customer is informed that he has not put mailing address in the
application form.

back to 4

Error Sequence:

E1: No valid ID
from 0

f2. Customer is asked for a valid ID.

f3. Customer can't present any valid ID.

f4. Use case fails.

back to 0

E2: No Smart Money application form available
from 1

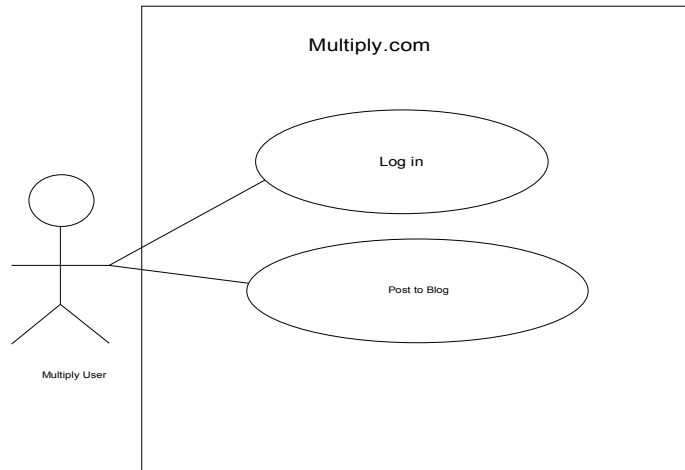
Systems Analysis and Design/ Use Case 7

g3. Customer is informed that there is currently no Smart Money application form available.

g4. Use case fails.
back to 1

Post Conditions:

1. Customer money is lessened.
2. Customer gets Smart Money.



USE CASE

USE CASE NARRATIVE:

IDENTIFICATION SUMMARY

Title: Post to Blog with Multiply

Summary: This use case allows a Multiply user to use the feature of Multiply.com which is to post to blog.

Actors: Multiply user

Multiply personnel

Creation Date: July 15, 2008

Update Date: July 17, 2008

Version: 1.0

Person in charge: Ruth Ann S. Basnillo

FLOW OF EVENTS:

Preconditions:

1. The computer the Multiply user is using must have an Internet connection.
2. Multiply.com must be available
3. User must have a Multiply account.

Main Success Scenario:

1. Multiply user logs in his account to Multiply.

Systems Analysis and Design/ Use Case 8

2. Multiply user clicks on Post, then Blog, and the Blog page appears.
3. Multiply user creates blog.
4. Multiply user posts the blog he created.
5. Multiply user saves his blog entry.

Alternative Sequences:

A1: Incorrect email or password

from 1

b2. A red warning is displayed that the email or password typed is incorrect.

b3. Multiply user retypes email or password.

b4. Username and password accepted.

back to 1

A2: Multiply.com under maintenance

from 1

c3. A message is displayed that Multiply.com is temporarily unavailable.

c4. Multiply user refreshes page.

c5. Multiply.com is already available.

back to 1.

A3: System error

from 2

d4. A system error occurs after clicking on Post link.

d5. Multiply user refreshes page.

d6. Post link is already available.

back to 2

A4: Internet connection timed out

from 3

e5. A message is displayed that connection has timed out.

e6. Multiply user waits and refreshes page.

e7. There is Internet connection already

Systems Analysis and Design/ Use Case 8

- e8. Multiply user logs in again.
 - e9. Multiply user clicks on Post link.
 - e10. Multiply user clicks on Blog.
 - e11. Multiply user creates blog.
- back to 3

Error Sequence:

E1: No Internet connection

from 0

- a2. Multiply user opens Internet browser.
- a3. Multiply user is informed that there is no Internet connection.
- a4. Use case fails.

E2: site temporarily unavailable within the day

from 0

- b3. Multiply user types Multiply URL and searches for it.
- b4. Multiply is informed that Multiply.com will not be available within the day.
- b5. Use case fails.

E3: forgotten username or password

from 1

- c4. An error occurs telling that username or password is incorrect.
- c5. Multiply user clicks on Forgot Password link.
- c6. Multiply user is asked for email address
- c7. Multiply user types incorrect email address for many times.
- c8. Multiply.com has been locked out.
- c9. Use case fails.

E4: Connection Timed out

from 1

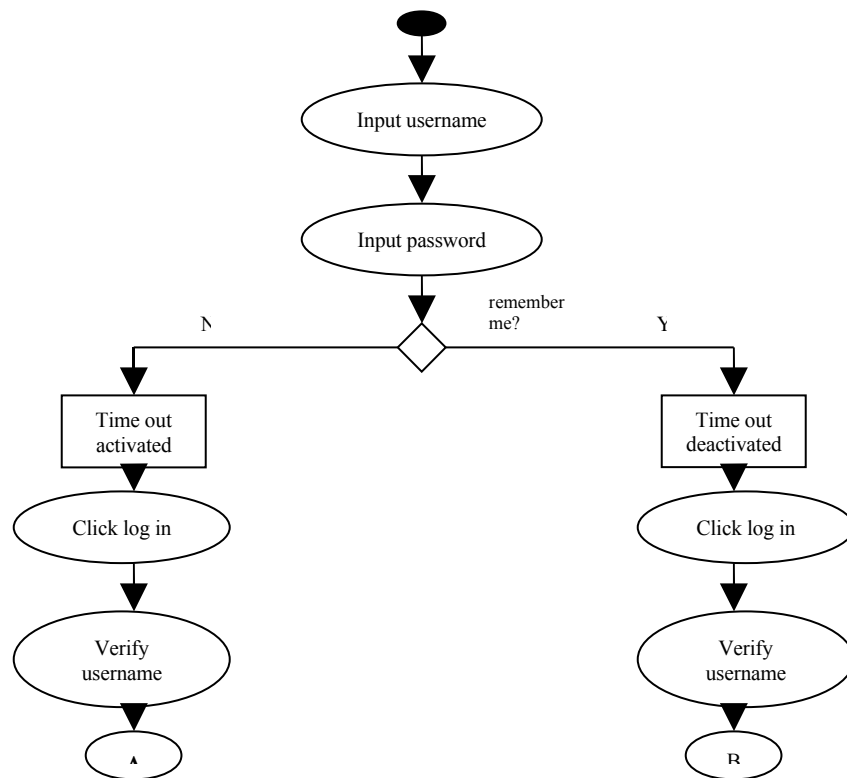
- d5. Multiply user checks Remember Me box.
- d6. Multiply user clicks on Post link.
- d7. Multiply user was automatically logged out.

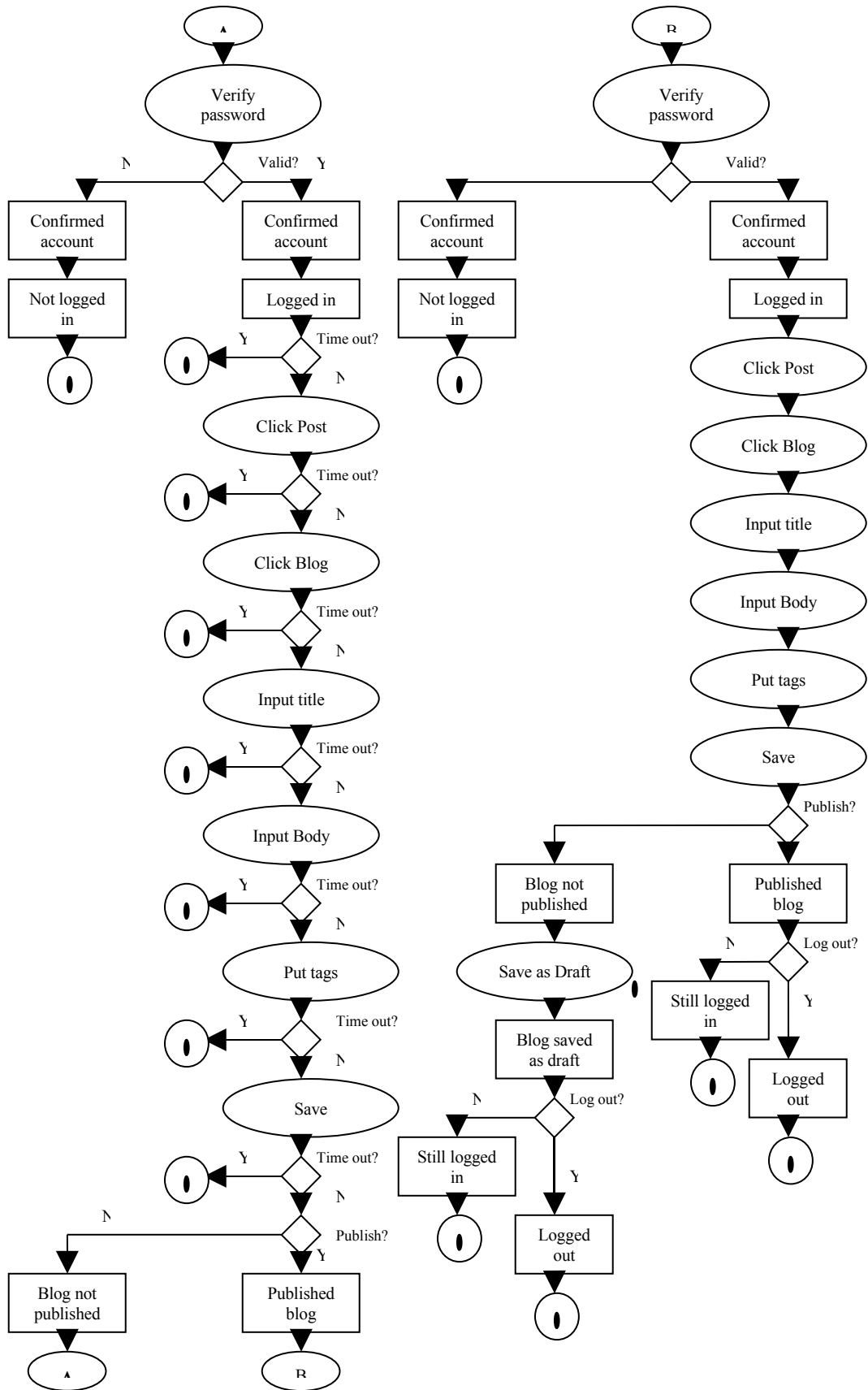
d8. Use Case fails.

Post Conditions:

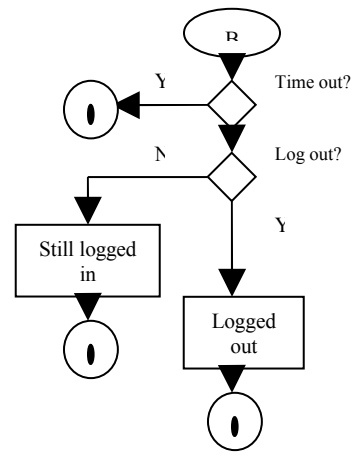
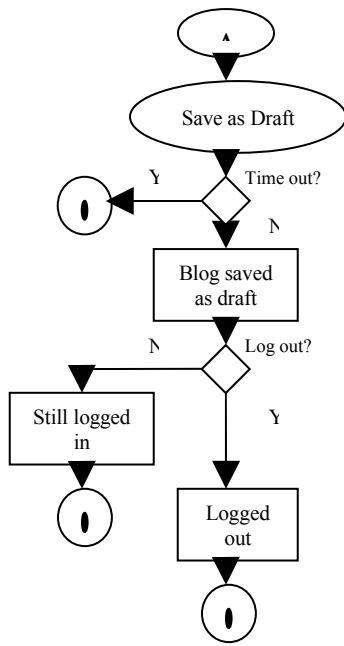
1. Multiply user's electricity consumption increases.
2. Multiply user added a new blog entry to his Multiply account.
3. Multiply contacts and other Multiply networks read his blog.

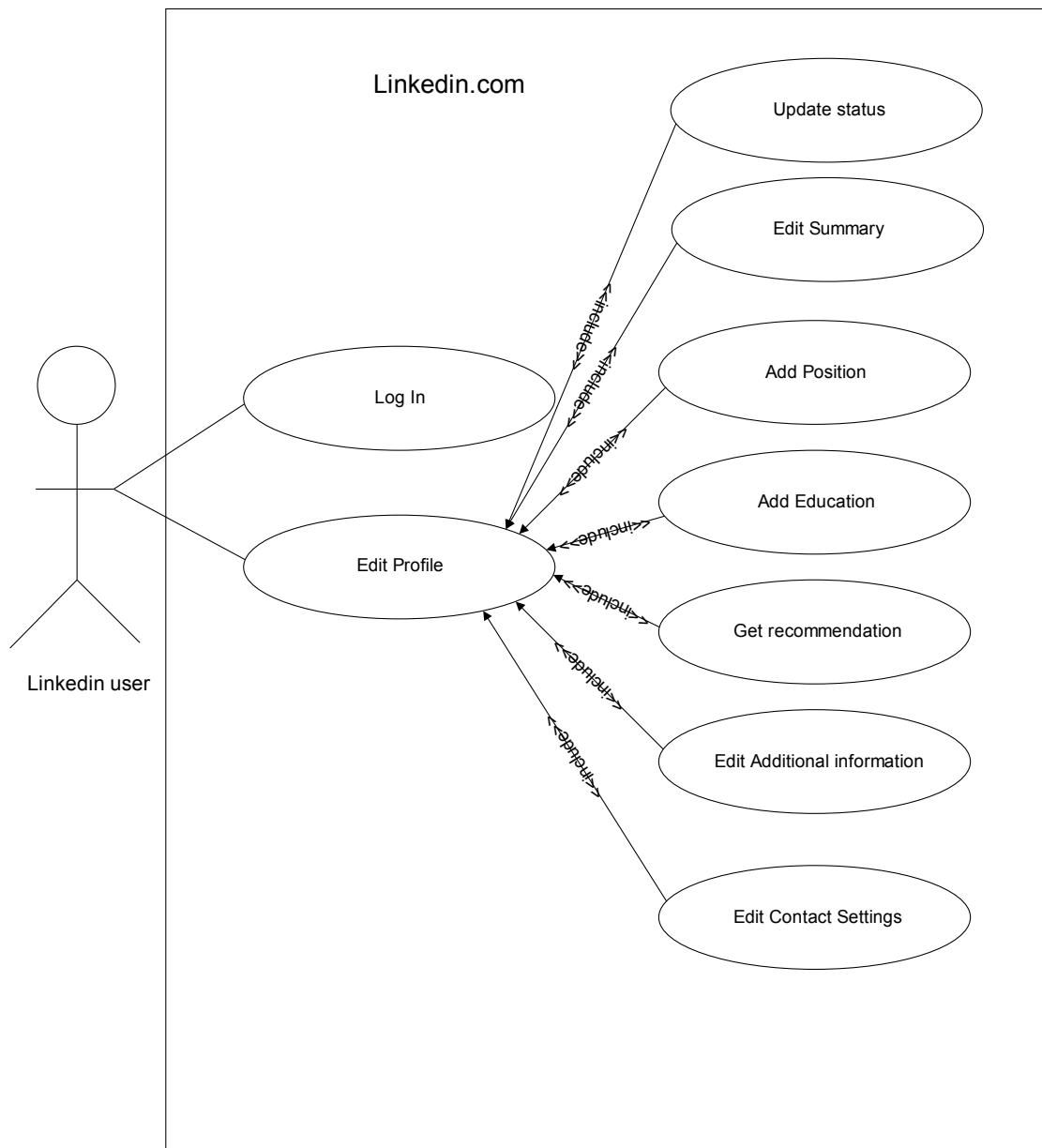
ACTIVITY DIAGRAM:





Systems Analysis and Design/ Use Case 8





USE CASE

USE CASE NARRATIVE

IDENTIFICATION SUMMARY:

Title: Edit Profile

Summary: This use case allows a LinkedIn user to edit his profile at LinkedIn.com.

Actors: LinkedIn user

Creation Date: July 23, 2008

Update Date:

Version: 1.0

Person in charge: Ruth Ann S. Basnillo

FLOW OF EVENTS:

Preconditions:

1. LinkedIn user's computer must have Internet connection.
2. LinkedIn.com must be available.
3. LinkedIn user must have linkedin account.
4. LinkedIn user is already logged in to his account.

Main Success Scenario:

1. LinkedIn user clicks profile link.
2. LinkedIn user clicks edit profile link.
3. LinkedIn user updates status.
4. LinkedIn user edits summary.
5. LinkedIn user adds position.
6. LinkedIn user adds education.
7. LinkedIn user gets recommendation.
8. LinkedIn user edits additional information.
9. LinkedIn user edits contact settings.
10. LinkedIn user completes his profile 100 percent.

Alternative Sequences:

A1: account not yet verified.

from 0

b2. LinkedIn user logs in to LinkedIn.com.

b3. LinkedIn user is informed that account needs to be verified.

b4. LinkedIn user clicks verification link.

b5. LinkedIn user account verified.

back to 0

A2: username or password is incorrect

from 0

c3. LinkedIn user types username and password.

c4. LinkedIn user is informed that username or password is

incorrect.

c5. LinkedIn user retypes username and password.

c6. Username and password accepted.

back to 0

A3: Internet cable unplugged

from 1

d4. LinkedIn user is informed that there is no internet connection.

d5. LinkedIn user plugs internet cable.

- d6. LinkedIn user has returned to linkedin page.
back to 1
- A4: linkedin.com connection timed out
from 2
 - e5. LinkedIn user is informed that connection has timed out.
 - e6. LinkedIn user refreshes page.
 - e7. LinkedIn user returns to linkedin profile page.
back to 2
- A5: forgot password
from 3
 - f6. LinkedIn user is asked for password.
 - f7. LinkedIn user forgot password.
 - f8. LinkedIn user clicks on forgot password link.
 - f9. LinkedIn user types password.
 - f10. LinkedIn user returns to linkedin profile page.
back to 3
- A6: linkedin.com connection timed out
from 4
 - g7. LinkedIn user is informed that connection has timed out.

 - g8. LinkedIn user refreshes page.
 - g9. LinkedIn user returns to edit summary page.
back to 4
- A7: linkedin.com connection timed out
from 5
 - h8. LinkedIn user is informed that connection has timed out.

 - h9. LinkedIn user refreshes page.
 - h10. LinkedIn user returns to add position page.
back to 5
- A8: linkedin.com connection timed out
from 6
 - i9. LinkedIn user is informed that connection has timed out.

 - i10. LinkedIn user refreshes page.
 - i11. LinkedIn user returns to add position page.
back to 6
- A9: there are no recommendations given to user
from 7
 - j10. LinkedIn user writes recommendations to others.
 - j11. LinkedIn user waits for recommendations.
 - j12. LinkedIn user checks inbox.
 - j13. LinkedIn user is informed that he has recommendation already.
back to 7
- A10: linkedin.com connection timed out
from 8

k11. LinkedIn user is informed that connection has timed out.

k12. LinkedIn user refreshes page.

k13. LinkedIn user returns to edit additional information page.
back to 8

A11: linkedin.com connection timed out
from 9

l12. LinkedIn user is informed that connection has timed out.

l13. LinkedIn user refreshes page.

l14. LinkedIn user returns to edit contact settings page.
back to 9

A12: LinkedIn user has just partly edited his profile
from 10

m13. LinkedIn user sees that he has not yet reached 100 percentage
profile completeness

m13. LinkedIn user edits suggested stuffs to be edited that would
give him big percentage.

back to 10

Error Sequence:

E1: Invalid LinkedIn account
from 0

a2. LinkedIn user inputs username and password.

a3. LinkedIn user is informed that account has not been created yet.

a4. Use Case fails.

back to 0

E2: LinkedIn.com connection totally timed out
from 1

b3. LinkedIn user is informed that he is totally signed out.

Use case fails.

back to 1

E3: No recommendations received
from 7

c4. None of LinkedIn contacts gave recommendations.

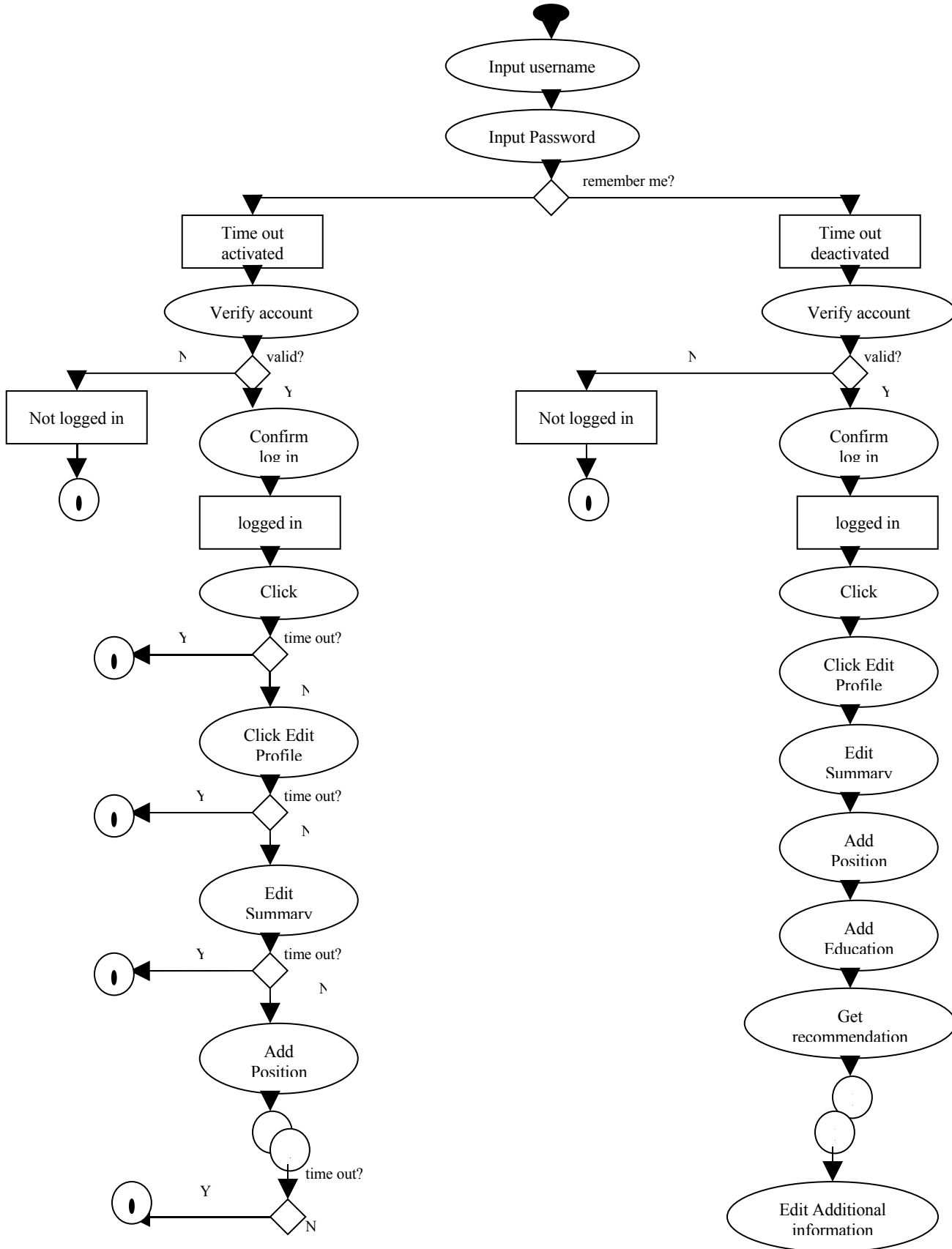
c5. Use case fails.

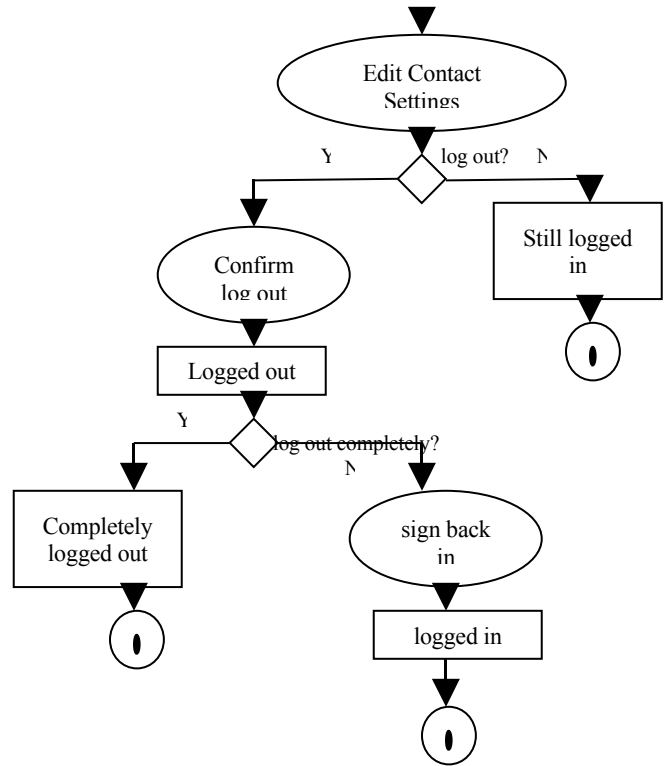
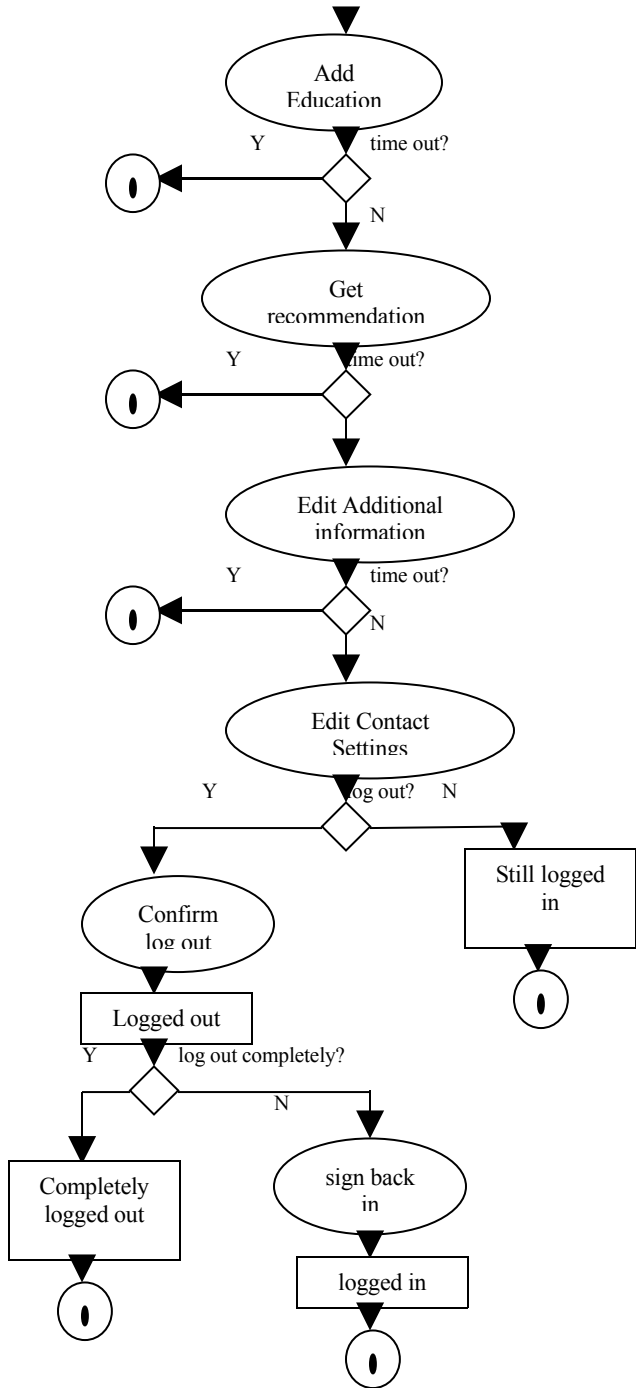
Post conditions:

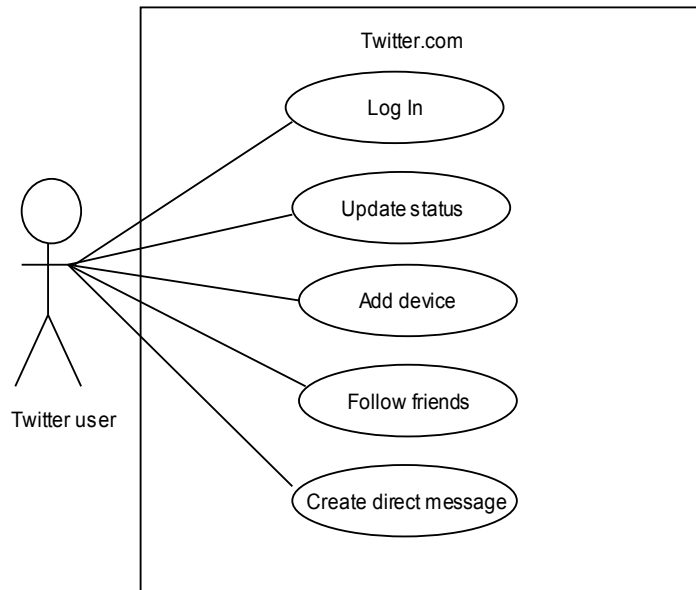
1. LinkedIn user's electricity consumption increases.

2. LinkedIn user completes editing his profile 100 percent.

ACTIVITY DIAGRAM:







USE CASE DIAGRAM

Identification Summary

Title: Twitter.com

Summary: This use case allows the Twitter user to update his Twitter account by using the features the site offers.

Actor: Twitter user

Creation Date: August 18, 2008

Date of Update: August 22, 2008

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of Events:

Preconditions:

1. The user must have Twitter account.
2. User must have computer.
3. User must have Internet access.
4. User must have electricity.

Main Success Scenario:

1. User logs in to his Twitter account.
2. User updates his status.
3. User adds device.
4. User follows friends who already use Twitter.
5. User creates a direct message to his Twitter contact.

Alternative Scenarios:

- A1: Account not yet verified
from 0
b2. User logs in to Twitter.com.

- b3. User is informed that account needs to be verified.
- b4. User clicks verification link.
- b5. twitter account verified.
- back to 0
- A2: email address or password is incorrect
 - from 1
 - c3. Twitter user types email address and password
 - c4. User is informed that email address or password is incorrect.
 - c5. User retypes email address and password.
 - c6. Email address and password of user are accepted.
 - back to 1
- A3: Internet cable unplugged
 - from 2
 - d4. User is informed that there is no internet connection.
 - d5. User plugs internet cable.
 - User returns to Twitter homepage.
 - back to 2
- A4: Twitter connection timed out
 - from 3
 - e5. Twitter user is informed that connection has timed out.
 - e6. User refreshes page.
 - e7. User returns to Twitter homepage.
 - back to 3
- A5: Web email not verified
 - from 4
 - f6. User types email address and password.
 - f7. User is informed that web email needs to be verified.
 - f8. User logs in to his web email.
 - f9. User clicks verification link.
 - back to 4
- A6: Internet connection disconnected
 - from 5
 - g7. User types message for Twitter contact
 - g8. User clicks Send link.
 - g9. User is informed that internet has been disconnected.
 - g10. User refreshes page.
 - g11. User returns to homepage.
 - back to 5

Error Sequence

- E1: Email account has not yet been created.
 - from 1
 - f2. User types email address and password.
 - f3. User is informed that email address is invalid.
 - f4. Use case fails.
 - back to 1
- E2: Twitter.com temporarily unavailable

Systems Analysis and Design/ Use Case 10

from 2

g3. User is informed that the site is temporarily unavailable because it's currently under maintenance.

g4. Use case fails.

back to 2

E3: User has no device (e.g. cell phone) to add

from 3

h4. User is informed that he needs to verify code to add device.

h5. Use case fails.

back to 3

E4: User has no Twitter user friends to import

from 4

i5. User imports contact through email.

i6. User is informed that none of his friends is a user of Twitter.

i7. Use case fails.

back to 4

E5: User is not following someone

from 5

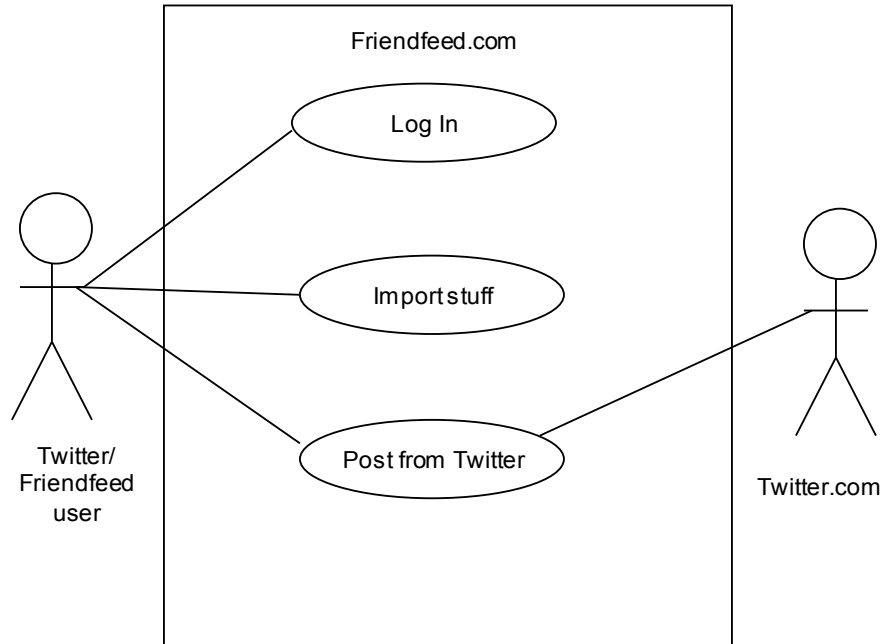
j6. User is informed that he needs to follow someone to direct a message.

j7. Use case fails.

back to 5

Post Conditions:

1. User's twitter account is updated.
2. Electricity consumption of user is increased.



USE CASE

USE CASE NARRATIVE

Identification Summary:

Title: Post from Twitter

Summary: This use case allows the Friendfeed user, at the same time Twitter user, to post updated status from Twitter and automatically have it posted to Friendfeed.

Actors: Twitter/ Friendfeed user

Twitter.com

Creation Date: August 18, 2008

Date of Update: August 22, 2008

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of events:

Preconditions:

1. User must have Friendfeed account.
2. User must have Twitter account.
3. User must have electricity.
4. User must have computer.
5. User must have internet access.
6. User must have already logged in to his Twitter account.
7. User must have already logged in to his Friendfeed account.
8. User must have already imported his Twitter account to Friendfeed.

Main Success Scenario:

1. User posts updated status from Twitter.

Alternative Scenarios:

A1: Account not yet verified

from 0

b2. User logs in to Friendfeed.com.

b3. User is informed that account needs to be verified.

b4. User clicks verification link.

b5. User's Friendfeed account is already verified.

back to 0

A2: Email address or password incorrect

from 0

c3. User types email address and password.

c4. User is informed that email address and password is incorrect.

c5. User retypes email address and password.

c6. Email address and password accepted.

back to 0

A3: Internet cable unplugged

from 1

d4. User is informed that there is no internet connection because cable is unplugged.

d5. User plugs internet cable.

d6. User returns to homepage.

back to 1

A4: Friendfeed connection timed out

from 1

e5. User is informed that connection has timed out.

e6. User refreshes page.

e7. User returns to homepage.

back to 1

Error Sequences:

E1: User has no Twitter account

from 0

f2. User could not import Twitter stuff because he has no Twitter account.

f3. Use case fails.

back to 0

E2: User has no electricity

from 0

g3. User could not turn on the computer.

g4. Use case fails.

back to 0

E3: Friendfeed temporarily unavailable

from 1

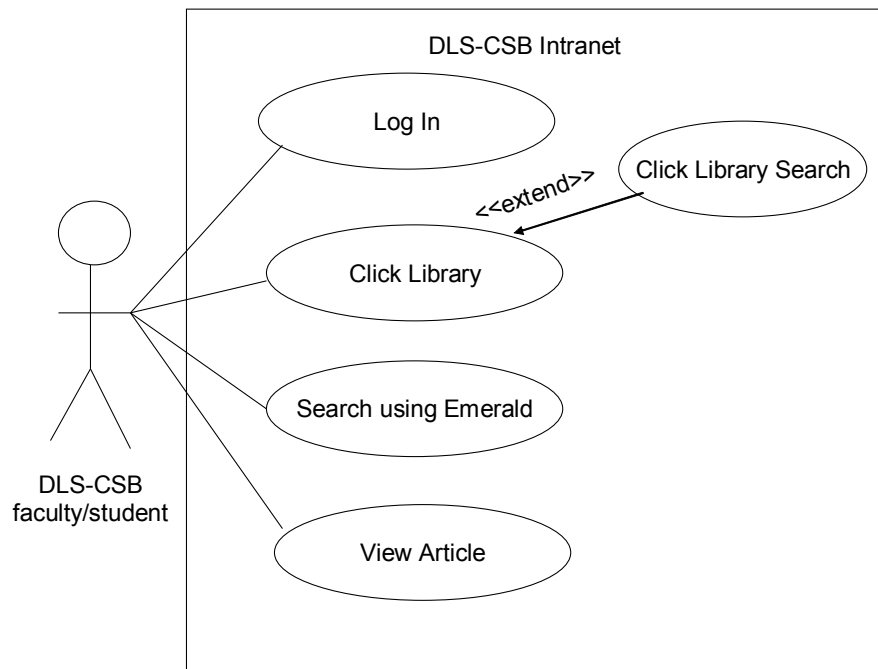
h4. User is informed that Friendfeed is temporarily unavailable because it is under maintenance.

h5. Use case fails.

back to 1

Post Conditions:

1. User's Friendfeed account is updated.
2. User's electricity consumption increases.
3. User posts to Friendfeed stuffs he posted to Twitter.



USE CASE

USE CASE NARRATIVE:

Identification Summary:

Title: Search Using Emerald

Summary: This use case allows DLS-CSB student/faculty to search articles via DLS-CSB Intranet using Emerald online database.

Actors: DLS-CSB student/faculty

Creation Date: August 20, 2008

Version: 1.0

Date of Update:

Person in charge: Ruth Ann Basnillo

Flow of Events:

Preconditions:

1. DLS-CSB student/faculty must have a valid DLS-CSB account.
2. DLS-CSB student/faculty must have already clicked DLS-CSB Intranet browser.
3. DLS-CSB student/faculty must have already logged in.
4. DLS-CSB student/faculty must have already clicked Library Search.
5. DLS-CSB must have electricity.
6. There must be computer that could be used.
7. There must be an Internet connection.

Alternative Scenarios:

A1: Username or password incorrect
From 0

Systems Analysis and Design/ Use Case 12

b2. DLS-CSB student/faculty types username and password.

b3. DLS-CSB student/faculty is informed that username or password is incorrect.

b4. DLS-CSB student/faculty retypes username and password.

b5. Username and password accepted.

back to 0

A2: Connection timed out

from 1

c3. DLS-CSB student/faculty types the keyword of his search.

c4. DLS-CSB student/faculty is informed that connection has already timed out.

c5. DLS-CSB student/faculty returns to DLS-CSB Intranet homepage.

back to 1

A3: Internet disconnected

from 2

d4. DLS-CSB student/faculty checks box before Emerald.

d5. DLS-CSB student/faculty clicks Search

d6. DLS-CSB student/faculty is informed that Internet connection is disconnected.

d7. DLS-CSB student/faculty refreshes page.

d8. DLS-CSB student/faculty returns to keyword search page.

back to 2

Error Sequences:

E1: No electricity

from 0

f2. DLS-CSB student/faculty can't click DLS-CSB Intranet browser because there is no electricity.

f3. Use case fails.

back to 0

E2: Domain CSB not available

from 0

g3. DLS-CSB student/faculty logs in to his account.

g4. DLS-CSB student/faculty is informed that he can't be logged in because the domain CSB is not available.

g5. Use case fails.

back to 0

E3: DLS-CSB Intranet under maintenance

from 0

h4. DLS-CSB student/faculty is informed that DLS-CSB Intranet is not available because it's under maintenance.

h5. Use case fails.

back to 0

E4: Emerald not available

from 2

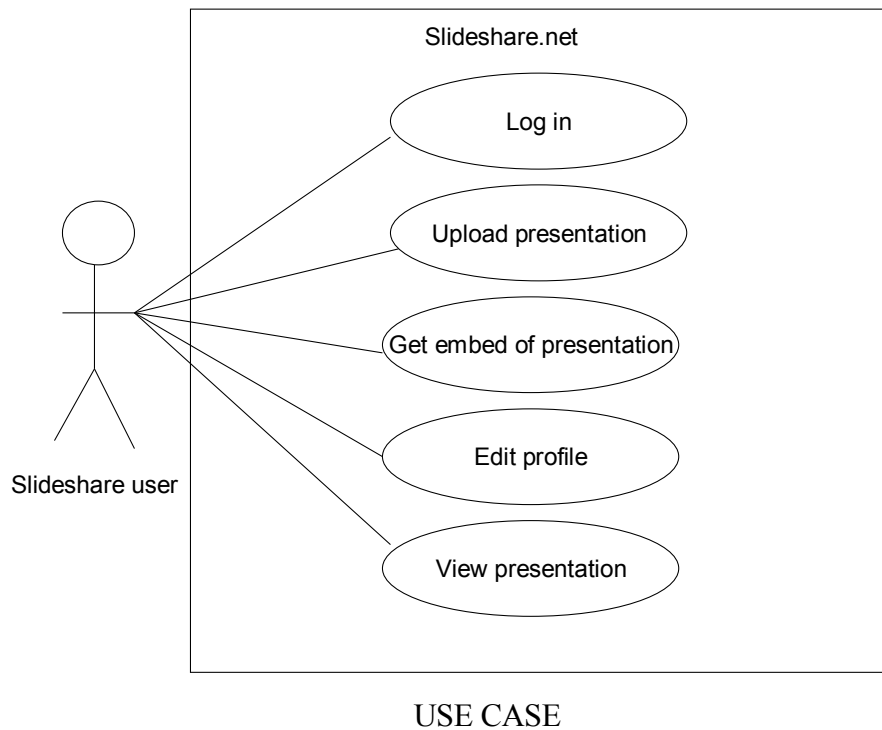
Systems Analysis and Design/ Use Case 12

i5. DLS-CSB student/faculty is informed that Emerald is currently not available.

i6. Use case fails.
back to 2

Post Conditions:

1. DLS-CSB student/faculty searches the article he needs using Emerald Online Subscription.
2. DLS-CSB electricity consumption increases.



USE CASE NARRATIVE:

Identification Summary:

Title: Upload presentation

Summary: this use case allows the Slideshare user to upload the presentation he made to Slideshare.

Actors: Slideshare user

Creation Date: August 23, 2008

Date of update:

Version: 1.0

Person in charge: Ruth Ann Basnillo

Flow of Events:

Precoditions:

1. Slideshare user must have electricity.
2. Slideshare user must have computer to use.
3. Slideshare user must have Internet access.
4. Slideshare user must have a valid Slideshare account.
5. Slideshare user must have already logged in.
6. Slideshare user must have a presentation to upload.
7. Slideshare user must have already saved the presentation either in the folders of the computer or in his device.

Main Success Scenario:

1. Slideshare user browses presentation to upload.
2. Slideshare user uploads chosen presentation.

3. Slideshare user successfully uploaded presentation.

Alternative Scenarios:

A1: Incorrect username or password

from 0

b2. Slideshare user types username or password.

b3. Slideshare user is informed that username or password is incorrect.

b4. Slideshare user retypes username or password.

Slideshare user's username and password accepted.

back to 0

A2: presentation not saved

from 1

c3. Slideshare user clicks browse.

c4. Slideshare user notices that file is not saved to any folders.

c5. Slideshare user saves presentation.

back to 1

A3: Internet disconnected

from 2

d4. Slideshare user clicks upload.

d5. Slideshare user is informed that Internet has been disconnected.

d6. Slideshare user refreshes page.

d7. Slideshare user returns to Slideshare profile page.

d8. Slideshare user browses presentation to upload.

back to 2

A4: Connection timed out

from 3

e5. Slideshare user is informed that connection has timed out.

e6. Slideshare user refreshes page.

e7. Slideshare user returns to Slideshare Profile Page.

e8. Slideshare user reuploads presentation.

back to 3

Error Sequence:

E1: Invalid account

from 0

f2. Slideshare user retypes username and password.

f3. Slideshare user is informed that account has not yet been created.

f4. Use case fails.

back to 0

E2: No electricity

from 0

g3. Slideshare user turns on the computer.

g4. Slideshare user can't turn on the computer because there is currently no electricity.

g5. Use case fails.

Systems Analysis and Design/ Use Case 13

back to 0

E3: no Internet connection

from 0

h4. Slideshare user clicks Internet browser.

h5. Slideshare user is informed that there is no internet connection.

h6. Use case fails.

back to 0

E4: No Presentation to upload

from 1

i5. Slideshare user clicks browse.

i6. Slideshare user finds presentation.

i7. Slideshare user has no presentation to upload because his presentation has not been saved in his hardware.

i8. Use case fails.

E5: Slideshare server down

j6. Slideshare clicks upload.

j7. Slideshare user is informed that Slideshare is currently not available because server is down.

j8. Use case fails.

back to 2

E6: Invalid file format

from 3

k7. Slideshare user is informed that the file format is invalid.

k8. Use case fails.

back to 3

Post Conditions:

1. Slideshare user's electricity consumption is increased.
2. Slideshare user's account is updated.
3. Slideshare user successfully uploads presentation.

Appendix 1

Appendix 2

**A Systems Analysis Study on the
Telemarketing system
Of Extra Ordinaire Janitorial & Manpower Services Inc.**

**Presented to the
Computer Applications Program
School of Management and Information Technology
De La Salle – College of Saint Benilde**

**In partial fulfillment of the
Requirement of the subject
Systems Analysis**

**Submitted By:
Basnillo, Ruth Ann
Buce, Marjorie
Capilitan, Maria Lourdes C.
Lim, Ma. Louise A.**

SYSANAL(O0A)

August 5, 2008

**Submitted To:
Mr. Paul Pajo**

SYSANAL Final Project (1st term, SY 2008-2009)

TITLE: “An Analysis on the telemarketing system of Extra Ordinaire Janitorial & Manpower Services Inc.”

I. Chapter 1

➤ **Company Background**

- **Company Overview:**

Company Name: Extra Ordinaire Janitorial & Manpower Services Inc.

Company Address: 2nd and 3rd Floor LFM Bldg., 186 Dona Soledad Avenue, Better Living Subdivision, Paranaque City.

Line of Business: Janitorial Services

Manpower Services

- **Mission:**

The company aims to deliver an extra ordinary performance, a fall order but achievable. Its primary mission is customers satisfaction, which could be attained through service excellence by its team of highly qualified key personnel and technically experienced and rigidly screened and trained manpower pool.

- **Vision:**

In the future, the company plans to operate not only key urban counter but also in other parts of the country where companies demand for highly dedicated and discipline janitorial, front, and back-end personnel.

- **Company History:**

Extra Ordinaire Janitorial & Manpower Services, Inc. was formally registered with the Department of Trade and Industry (DTI) on March 11, 2002. Its principal office is at 3/F LFM Building, 186 Dona Soledad Ave., Better Living Subdivision, Paranaque City.

- **Products and Services:**

- **Janitorial Services:**

- Marble Crystallizations

- Carpet Shampooing

- General / One Time Cleaning

- High Rise Window Cleaning

- Ground Maintenance

- Landscaper / Gardener

- **Manpower Services:**

- Hotel Restaurant Workers

- Skilled Maintenance

- Porter / Usherette

- Messengerial

- Elevator Operator

- Sales Clerk / Bagger

- Cashiers / Encoder

- Office Personnel

- Factory Worker / Production

- Worker

- Painter

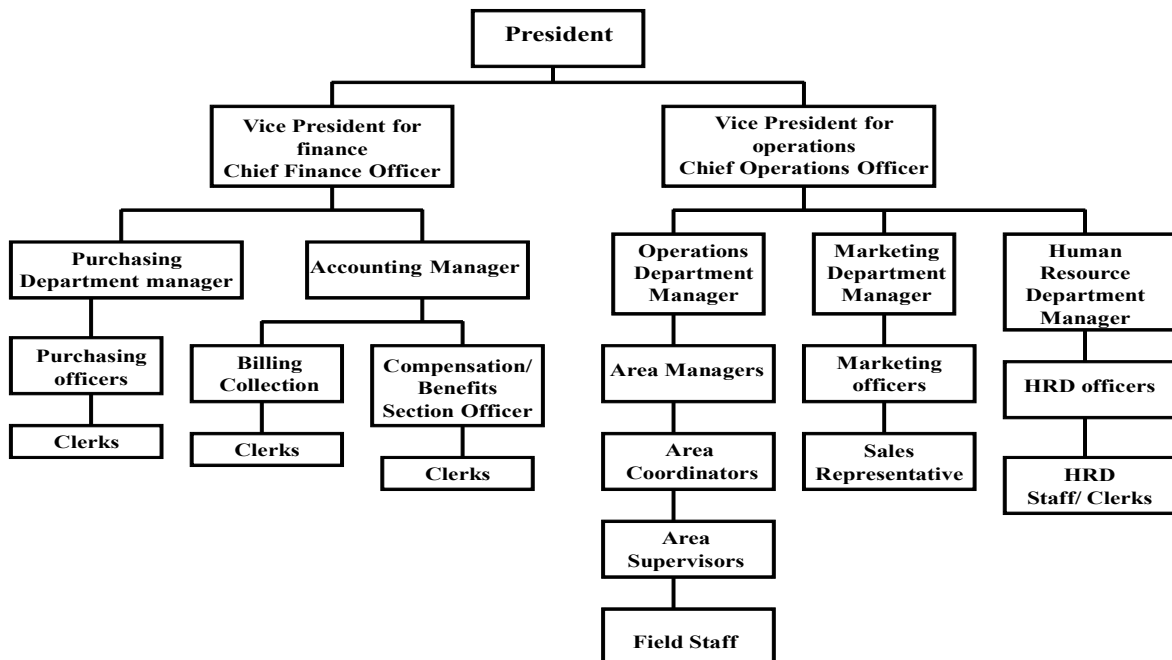
- Carpenter

- Electrician / Plumber

- **Number of Customers: 21**

- **Number of Transactions: approximately 50 per day**

- **Organizational Chart:**



➤ **Statement of the Problem**

The critical business process the study focuses on is the telemarketing of the company wherein they promote the products they offer and acquire clients over the phone. The general problem the study identifies is that only a few numbers of proposals are approved among the numerous proposals the company passed.

- the company is not known
- the company does not prioritize advertisement

- the company has no budget for advertisement
- the company has few revenue
- the company has few clients

The telemarketing system of the company was chosen because this system would enable the company to gain clients and introduce them the services they offer. Moreover, through this system, the company would be able to achieve its goal to operate on key urban areas and in other parts of the country needing their services.

➤ **Objectives of the System**

The proposed system of the study aims to open new markets and increase sales opportunities for the company

- to increase the flexibility of the company by improving its ability to respond and adapt to the technological changes in the environment
- to improve asset utilization by introducing them the functions and benefits of the computers they use
- to reduce the long process cycle time of the company's marketing system

➤ **Significance of the Study**

The importance of the study is that the proposed system would be means of increasing the number of approved proposals submitted by the company to its prospective clients. This would also provide means of enhancing the marketing system of the company that would in turn open new markets and increase sales opportunities. Moreover, this would also be means of letting the company gain

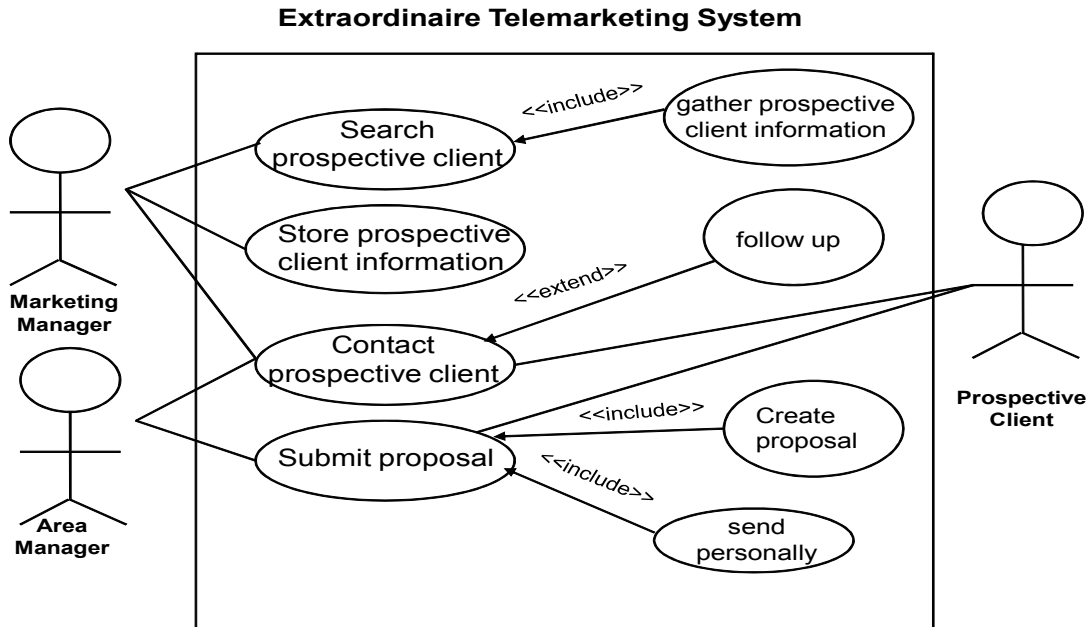
more clients that would in turn make them gain more revenues. The ability of the company to respond to technological changes in the environment would be increased as well as the utilization of their assets.

➤ **Scope and Limitation**

The analysts are doing a web-based marketing system for the company wherein a website would be created for the company. But the website that would be created would not be those that cost because the analysts are into the free websites offered in the Internet. They could just update some blog posts and stuffs that they would put in their website. The searching of the prospective clients would not need for a purchase of business directory database that are sold. Instead the directory would just be those that are also offered for free by some sites such as Philippine Business Pages. The study would only cover the marketing of the company such as with its advertisement and acquisition of clients.

1. Chapter 2

➤ **Use Case Diagram**



➤ **Use Case Narratives**

1. Identification Summary

Title: Search Prospective Client

Summary: This use case allows the Marketing Manager of the company to search

for their prospective clients through telephone directories

Actor: Marketing Manager

Creation Date: August 5, 2008

Version: 1.0

Date of update: August 9, 2008

Person in charge: Marjorie Buce

Flow of Events

Preconditions:

1. The marketing manager must have time to search for prospective clients.
2. The company should have an updated telephone directory book.
3. Prospective client must not be present client.

Main Success Scenario:

1. Marketing Manager searches for the information (company name, address, contact number) about their prospective clients in the telephone directory book.
2. Marketing Manager gathers information about their prospective clients.

Alternative Sequences:

A1: Telephone directory page torn

From 1

1a. Marketing Manager points out good prospective client.

1b. Information about the prospective client could not be seen because page is partly torn.

1c. Marketing Manager turns page and looks for other prospective clients

Back to 1

A2: Telephone directory page spilled off with liquid

From 1

2a. Marketing Manager points out good prospective client

2b. Information about the prospective client could not be clearly seen because page was spilled with liquid

2c. Marketing Manager turns to other page and look for other prospective client

Back to 1

A3: Prospective client info not immediately written

From 2

3a. Marketing Manager forgot to write prospective client info

3b. Marketing Manager researches prospective client info

3c. Marketing Manager found the prospective client info

Back to 2

Error Sequences:

E1: No telephone directory book

From 1

1a. The company has no telephone directory book

1b. use case fails

Back to 1

E2: Client info not written

From 2

2a. Marketing Manager didn't write info about their prospective clients

2b. Use case fails

Back to 2

Post Conditions:

1. Telephone directory book is used

2. Marketing Manager's time is used up

3. Marketing Manager had information about prospective clients

User Interface: Directory book

2. Identification Summary

Title: Store Prospective Client Information

Summary: This use case allows the marketing manager to store information about their prospective client in Microsoft Excel.

Actors: Marketing Manager

Creation Date: August 5, 2008

Date of update: August 9, 2008

Version: 1.0

Person in charge: Ma. Louise Lim

Flow of Events

Preconditions:

1. Marketing Manager must have time to store information about prospective clients
2. Marketing Manager must have gathered information about their prospective clients
3. The company must have a computer
4. There must be electricity for the computer
5. The computer of the company must have Microsoft Excel
6. Past stored potential client info file is in the computer

Main Success Scenario:

1. Marketing Manager collects gathered information about prospective clients
2. Marketing Manager stores gathered information in excel
3. Marketing Manager saves the information in Excel to company file folder

Alternative Sequences:

A1: Gathered prospective client info misplaced

From 1

- 1a. Marketing Manager looks for the gathered info
- 1b. Marketing Manager finds gathered info

Back to 1

A2: Past stored prospective client info file transferred

From 2

- 2a. Marketing Manager asks colleagues where the file is
- 2b. Marketing Manager is informed that the file was just transferred
- 2c. Marketing Manager finds where the file is

Back to 2

A3: Electricity lost for minutes

From 3

- 3a. Marketing manager turns on the computer as soon as electricity comes back
- 3b. Marketing Manager goes back to excel
- 3c. File not saved was recovered

Error Sequences:

E1: Prospective info file lost

From 1

1a. Marketing manager could not find gathered perspective client info file in the file folder location

1b. Use case fails

back to 1

E2: Stored prospective client info file deleted

from 2

2a. Marketing Manager accidentally deleted file folder

2b. Marketing Manager looks for it at the recycle bin

2c. The deleted file was not in the recycle bin anymore

2d. Use case fails

back to 2

E3: Electricity temporarily lost

from 3

3a. Marketing Manager turns on the computer.

3b. Marketing Manager gives back to Excel.

3c. Use Case Fails

back to 3

Post Conditions:

1. Marketing Managers time was used up.
2. Electricity consumption of the company is increased.
3. Marketing Manager has stored the gathered information about prospective clients.
4. Prospective clients increased.

User Interface: Computer

3. Identification Summary

Title: Contact Prospective Client

Summary: This use case allows the marketing manager and the area manager to contact their prospective client over the telephone.

Actors: Marketing Manager, Area Manager, Client

Creation Date: August 13, 2008

Date of Update:

Version: 1.0

Person in charge: Maria Lourdes

Capilitan

Flow of Events:

Preconditions:

1. Marketing Manager or Area Manager must have time to call their prospective clients.
2. The company must have a telephone line for the Marketing Manager.
3. The Marketing Manager or Area Manager must have the contact numbers of their prospective clients.
4. The telephone line of the company must be working.

Main Success Scenario:

1. Marketing Manager or Area Manager dials the number of their prospective clients.
2. Marketing Manager or Area Manger receives answer from their prospective client.
3. Marketing Manager or Area Manager introduces the company to the prospective client and asks permission to submit proposal to them.

Alternative Sequences:

A1: Incorrect Phone Number
from 1

- number
- 1a. Marketing Manager or Area Manager notices that the phone number exceeds the limit number of phone numbers.
 - 1b. Marketing Manager or Area Manager checks it in the telephone directory.
 - 1c. Marketing Manager or Area Manager finds out that we had a mistake with the number be stored.
 - 1d. Marketing Manager or Area Manager corrects the phone number error in the database.
- back to 1

A2: Prospective client's line is busy
from 2

- of the phone number he dialed is busy.
- 2.a Marketing Manager or Area Manager is informed that the line of the phone number he dialed is busy.
 - 2b Marketing Manager or Area Manager waits for a few minutes.
 - 2c Marketing Manager or Area Manager redials the number of their prospective client.
 - 2d The number dialed is ringing.
- back to 2

A3: Marketing Manager was hanged up
from 2

- 3.a Marketing Manager or Area Manager ends call.
- 3.b Marketing Manager or Area Manager waits for minutes and redials the number.
- 3.c The number dialed is ringing.

back to 2

A4: Marketing Manager or Area Manager is asked to call again from 3

from the

4.a Marketing Manager or Area Manager receives an answer prospective client.

4.b Marketing Manager or Area Manager is asked to call again on the date said.

4.c Marketing Manager or Area Manager waits for the day to come.

4.d Marketing Manager or Area Manager redials the number on the said date.

4.e Marketing Manager or Area Manager answer from personal Computer.

back to 3

A5:

from 4:

4.e Marketing Manager or Area Manager received a set date for submission of proposal from Personal Computer.

back to 4

Error Sequence:

E1: The telephone line is out of service

from 1

1a. Marketing Manager or Area Manager is informed that the line of their prospective client is out of service.

1b. Use Case Fails

E2: Wrong Number

from 1

2.a Marketing Manager or Area Manager is answered by different people and is informed that number dialed is wrong.

2.b Use Case Fails

back to 1

E3: Call ended immediately

from 2

3.a Prospective client dropped phone after knowing the caller.

3.b Use Case Fails

back to 2

E4: Prospective Client not interested

from 3

4.a Marketing Manager or Area Manager is informed that the prospective client is not interested with their company.

4.b Use Case Fails

back to 3

E5: Prospective Client not interested

from 4

5.a Marketing Manager or Area Manager is informed that the prospective client is not interested with their company.

5.b Use Case Fails

back to 4

Post Conditions:

1. Marketing Manager or Area Manager time is used up.
2. Telephone bill or the company is increased.
3. Follow up calls for the prospective clients increased.
4. Prospective clients knew the company and service.

User Interface: Telephone

4. Identification Summary:

Title: Submit Proposal

Summary: This use case allows the Area Manager to submit company proposal to their

prospective clients.

Actors: Area Manager, Prospective Client

Creation Date: August 13, 2008

Date of Update:

Version: 1.0

Person in Charge: Maria Lourdes

Capilitan

Flow of Events:

Preconditions:

1. The Area Manager must have time to submit the company proposal.
2. The area manager must have the prospective client's address.
3. They must have created the proposal for the Area Manager to submit.
4. Prospective client must have a set date for the company's submission of proposal.

Main Success Scenario:

1. Area Manager goes to the specified address of the prospective client.

2. Area Manager submits company proposal to their prospective clients.

Alternative Sequences:

A1: Transportation Budget robbed.

from 1

1a. Area Manager was robbed along the way.

1b. Area Manager walks if the place is already near.

back to 1

A2: Area Manager not allowed to enter.

from 2

client.
2a. Area Manager is blocked by the guard of the prospective

2b. Area Manager informs the guard that he has an appointment with the company.

2c. Area Manager is asked to just leave the proposal to the guard.

back to 2

A3: Incorrect Proposal for the prospective client.

from 2

3a. Area Manager notices that the proposal handled is not for the prospective client he's into.

3b. Area Manager goes back to the company and asks the Marketing Manager for the right proposal.

3c. Area Manager goes back to the Person in Charge

back to 2

A4: Incorrect Person in Charge address

from 1

1a. Area Manager is informed that the address or the Person in Charge there into.

number.
1b. Area Manager contacts the Person in Charge with their

1c. Area Manager is directed to the right address.

back to 1

Error Sequence:

E1: Person in Charge transferred address

from 1

address already
1a. Area Manager is informed that the forces resident of the

transferred.

1b. Area Manager contacts the Person in Charge.

1c. Area Manager is ignored that the line is already out of service.

1d. Use Case Fails

back to 1

E2: Prospective client company totally closed.

from 2

2a. Area Manager is informed that the Person in Charge in the company stopped operation.

2b. Use Case Fails

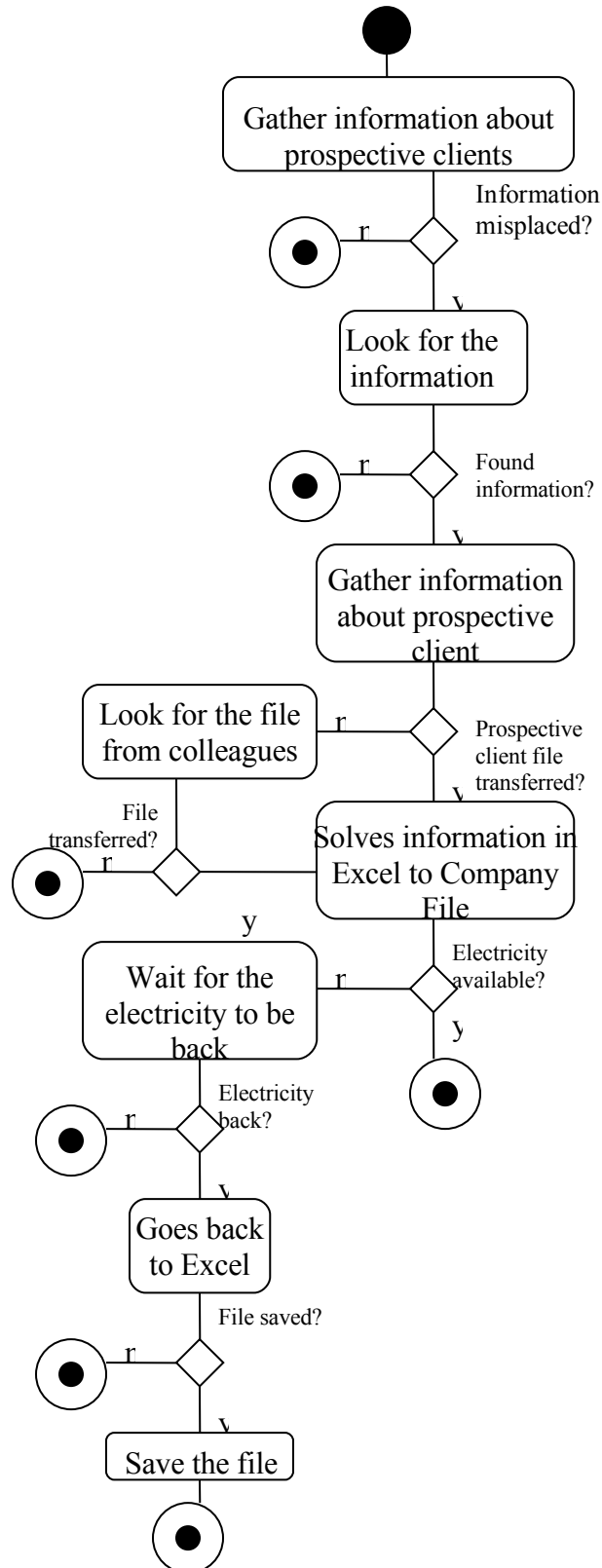
back to 2

Post Conditions:

1. Area Manager's time is used up.
2. Area Manager got tired.
3. Area Manager submitted the company's proposal to Person in Charge.
4. Person in Charge got to know the services that the company offers.
5. Prospective client on the company increased.

➤ Activity Diagrams

Search Prospective Client

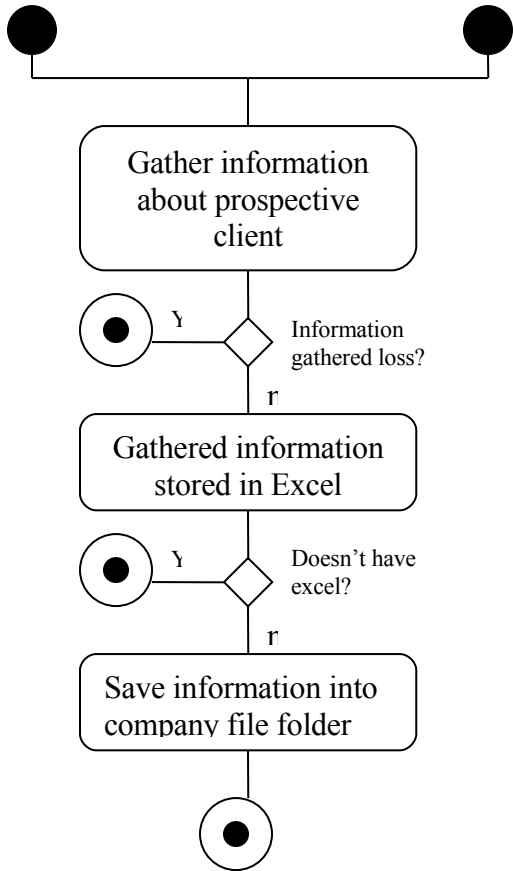


Store Prospective client Information

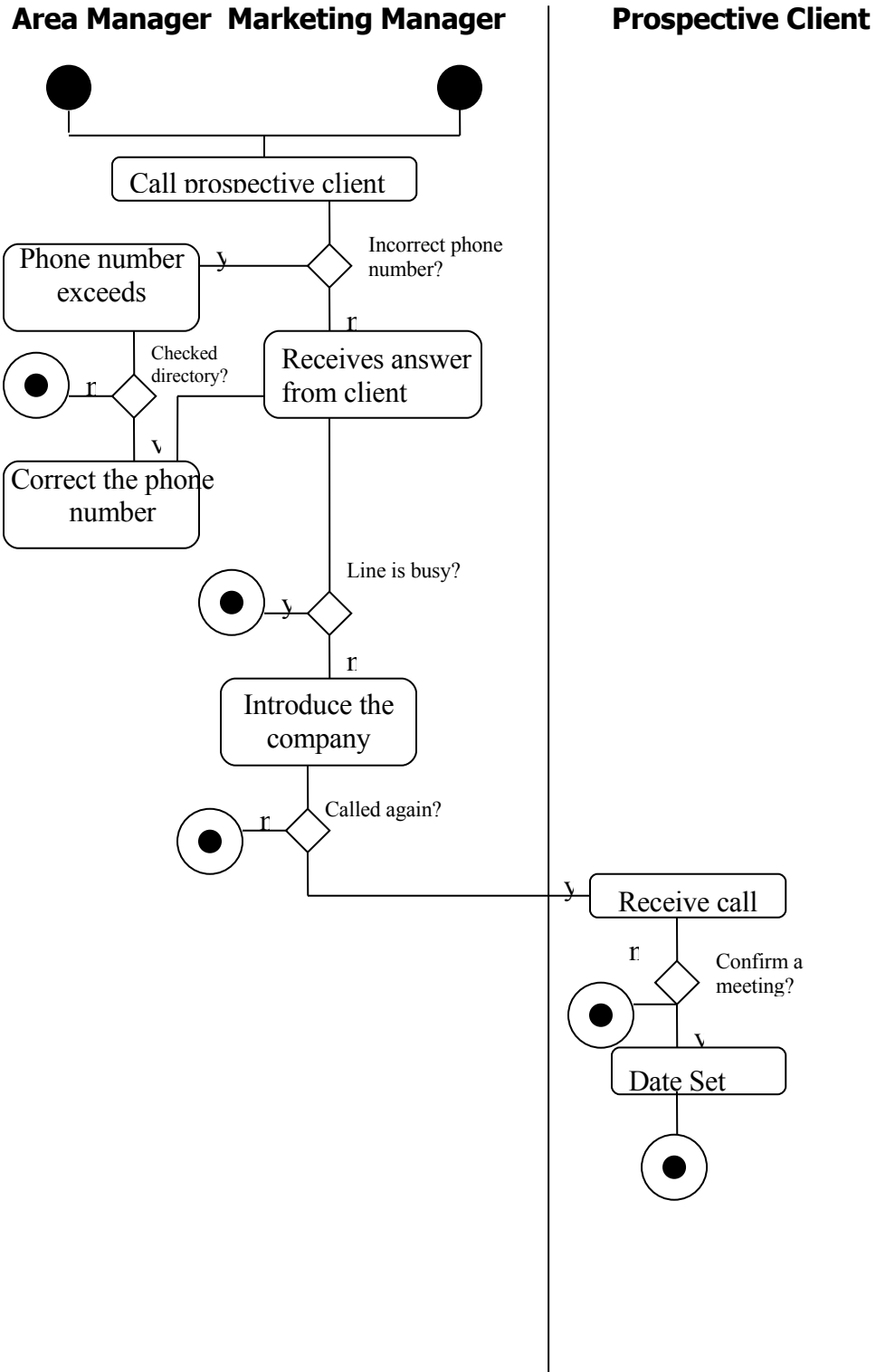
Area Manager
Client

Marketing Manager

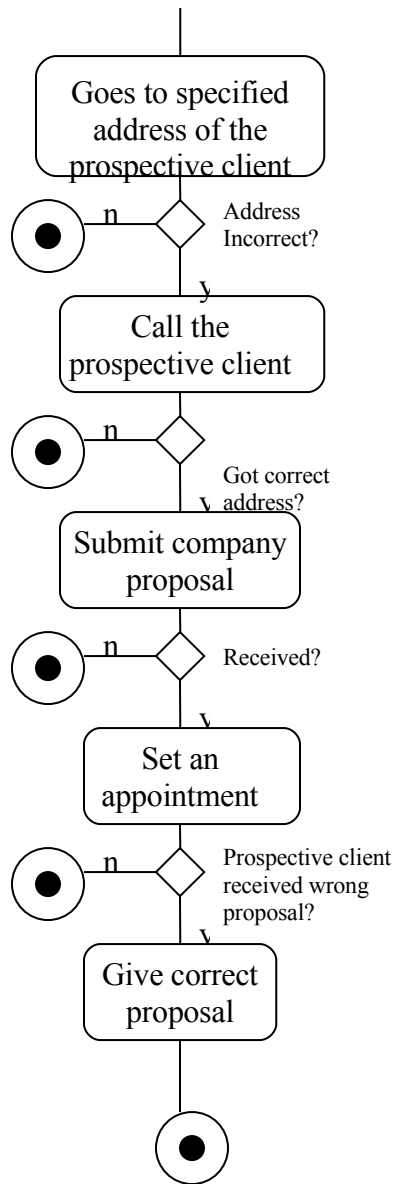
Prospective








Contact Prospective Client



Submit Proposal



➤ **Process Walkthrough**

Existing System Activities	Process Walkthrough
1. Search Prospective Clients	
2. Store Prospective Clients Information	
3. Contact Prospective Clients	
4. Submit Proposal	
4.1 Create Proposal	

➤ **Process time vs. Cycle Time**

Activities	Processing time	Cycle time
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Search prospective clients through telephone directories	1 min	60 mins
Store Prospective Clients Information in Excel	5 mins	120 mins
Contact Prospective Clients	10 mins	120 mins
Create company proposal	50 mins	180 mins
Review Proposal	5 mins	30 mins
Revise proposal	10 mins	60 mins
Follow up call to prospective clients	5 mins	20 mins
Submit proposal	60 mins	240 mins

III. Chapter 3

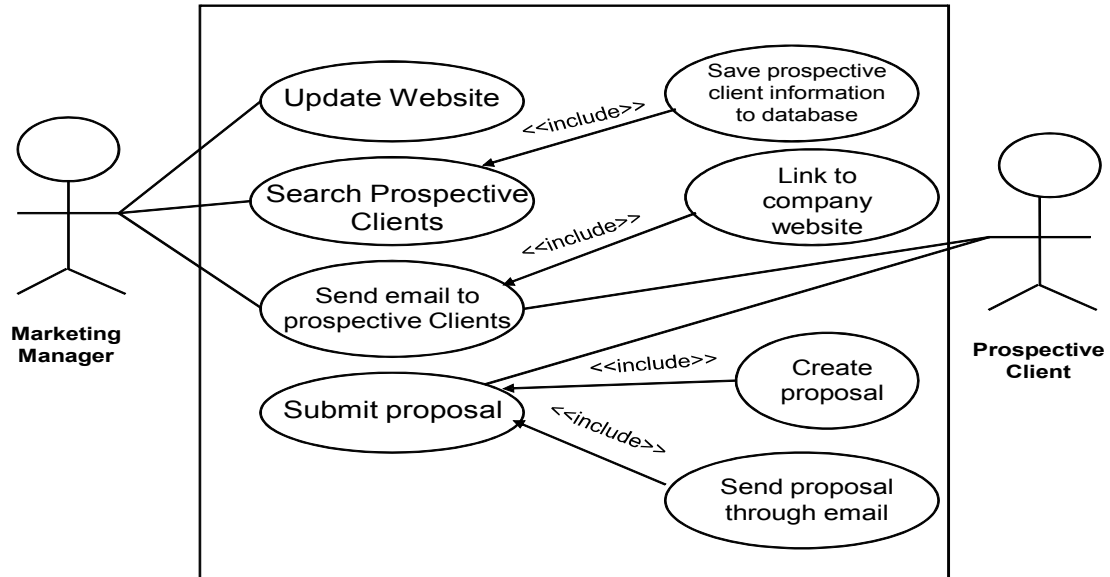
➤ Table of Recommendations

Problem to be addressed	Recommended change	Activities affected
Few numbers of approved proposals	Existing System: Telemarketing Proposed System: Web-based marketing system	-Search Prospective Clients Information in telephone directory -Contacts prospective client through telephone -Submits company proposal personally
Company is not known	Before: There is just a little form of advertisement through telephone calls. -Company should consider advertising through blog posts and videos about the company	- Contacts prospective client through telephone
Company does not prioritize advertisement	Before: Company just give some photocopies of leaflets to employees who give these to some of the people they knew -Company should give focus on advertisement by creating a website where they could post some advertisements about the company	-Contacts prospective client through telephone
Company has no budget for advertisement	Before: Company gives importance to telephone bill payments and some expenses for photocopying of leaflets as their form of advertisement -Company should instead shift to focusing on paying bills for Internet connection and electricity bills for a worthwhile advertisement via the Internet	-Search Prospective Clients Information in telephone directory -Contacts prospective client through telephone -Submits company proposal personally
Company has few revenue	Before: Company does not focus more on big businesses as their clients	-Search Prospective Clients Information in telephone directory -Contacts prospective

	-Company should consider more bigger businesses as their clients	client through telephone -Submits company proposal personally
Company has few clients	Before: Employees of the company could call their prospective clients as soon as they have time and as soon as they had searched from the telephone directory -An employee of the company such as the marketing manager should send emails to prospective clients after having searched Philippine Business pages via the Internet wherein the email contains the link of the company website.	-Contacts prospective client through telephone

➤ **Use Case Diagram of the Proposed System**

Extraordinaire Web-based marketing System



Identification summary

Title: Update website

Summary: This use case allows the marketing manager of the company to update their website that perspective client could see.

Actors: Marketing Manager

Creation Date: August 09, 2008

Version: 1.0

Date of update:

Person in charge: Ruth Ann Basnillo

Flow of events:

Preconditions:

1. Marketing manager must have already created a website for the company.
2. Marketing manager must have time to update website.
3. The company must have electricity.
4. The company must have computer for the marketing manager.
5. The computer of the marketing manager must have Internet access
6. Marketing manager must know the account of the company website.
7. Marketing manager must have access to the company website account
8. Company website host must be available.

Main Success Scenario:

1. Marketing manager logs in to the company website.
2. Marketing manager posts to blog.
3. Marketing manager approves comments from the company website visitors.
4. Marketing manager post to photos of the company website

5. Marketing manager posts to videos on the company website.
6. Marketing manager edits company websites appearances.

Alternative Sequences:

A1. Incorrect username or password

From 1

1a. Marketing manager types username and password.

1b. Marketing manager is informed that username or password is incorrect.

1c. Marketing manager retypes user names and password.

1d. user name and password accepted.

Back to 1

A2. Internet Cable Unplugged

From 2

2a. Marketing manager is informed that there is no internet connection because internet cable is unplug.

2b. Marketing manager plugs internet cable.

2c. Marketing manager returns to company website blog page.

Back to 2

A3. Unacceptable comments

From 3

3a. Marketing manager reads comments of the company website visitors.

3b. Marketing manager receives negative comments from the company website visitor.

3c. Marketing manager won't publish the negative comment of the company website visitor.

3d. Marketing manager will work on the negative comment of the company website visitor.

Back to 3

A4. Internet connection timed out

From 4

4a. Marketing manager is informed that internet connection has timed out.

4b. Marketing manager refreshes page.

4c. Marketing manager returns to photo page of the company website.

Back to 4

A5. Videos to post misplaced

From 5

5a. Marketing manager finds back up of the videos to post.

5b. Marketing manager uploads videos to post.

Back to 5

A6. Company website is informed that the company website connection has timed out.

From 6

6a. Marketing manager is informed that the company website connection has timed out.

6b. Marketing manager refreshes page.

6c. Marketing manager return to edit website appearance page.

Back to 6

Error Sequences:

E1. Forgotten account

1a. Marketing manager inputs username and password.

1b. Marketing manager is informed that account has not been created.

1c. Use case fails.

E2. No internet connection

From 0

2a. Marketing manager clicks internet browser.

2b. Marketing manager is informed that there is no internet connection

2c. Use case fails.

E3. Company website not hosted anymore

From 1

3a. Marketing manager is informed that the website is not hosting anymore.

3b. Use case fails.

Back to 1

Post Conditions:

1. Marketing manager's time is used up

2. The electricity connection bill of the company is increased.

3. Internet connection bill of the company is increased.

4. Company website capacity is increased

5. The company website is updated.

User interface:

Computer, Company website

Identification Summary

Title: Search prospective clients

Summary: This use case allows the Marketing manager to search for perspective clients in the Internet and save information about them in the database.

Actor: Marketing manager

Creation Date: August 09, 2008

Date of update:

Version: 1.0

Person in charge: Ruth Ann

Basnillo

Flow of events:

Preconditions:

1. The company must have computer for the marketing manager.
2. the computer must have internet access
3. Marketing manager must have time to search for perspective client.
4. Marketing manager must have a database for the gathered information about prospective clients.
5. Prospective clients must not be present clients.
6. The company must have electricity.
7. Database has auto recovery.
8. There is confirmation for file deletion.

Main Success Scenario:

3. Marketing manager searches for the information's (company name, address, contact no, email address) of their prospective clients in the Philippine business pages in the internet.
4. Marketing manager transfers information about their prospective clients for database.
5. Marketing manager saves gathered information in excel

Alternative Sequences:

A1. Internet cable unplugged

From 1

1a. Marketing manager is informed that there is no internet connection because the internet cable is unplugged.

1b. Marketing manager plugs the internet cable.

1c. Marketing manager returns to the page.

Back to 1

A2. Prospective Client information not immediately copy.

From 2

2a. Marketing manager forgot to copy prospective client

information

2b. Marketing manager researches prospective client

information

2c. Marketing manager finds prospective client information

Back to 2

A3. Electricity temporarily lost

From 3

3a. Marketing manager turns on the computer as soon as electricity comes back.

3b. Marketing manager goes back to database.

3c. File not saved was auto recovered.

back to 3

Error Sequences:

E1. No internet connection

From 1

1a. Marketing manager is informed that there is no internet connection.

1b. Use case fails.
back to 1

Post Conditions:

1. Internet bill of the company is increased.
2. Marketing manager time is used up
3. Prospective clients are increased.
4. Electricity consumption of the company is increased.
5. Gathered information about prospective client is saved.

Use interface:

Computer, web, database

3. Identification Summary

Title: Send email to prospective client

Summary: This use case allows the Marketing Manager to link the company website by

sending email to prospective clients

Actors: Marketing Manager, Prospective Client

Creation Date: August 9, 2008

Date of update:

Version: 1.0
Basnillo

Person in charge: Ruth Ann

Flow of Events

Preconditions:

1. The company must have a website
2. The company must have an email address
3. Marketing manager must have the email address of their prospective client
4. The company must have computer for the marketing manager
5. The company must have internet connection
6. Marketing Manager must know the company's email account
7. The company must have electricity
8. Marketing Manager must have time to send emails

Main Success Scenario:

1. Marketing Manager logs in email account
2. Marketing Manager creates a message for the prospective client and puts the link of the company website
3. Marketing Manager sends the email to the prospective client's email address

Alternative Scenario:

- A1: Incorrect username or password
From1

- 1a. Marketing Manager inputs username and password
 - 1b. Marketing Manager is informed that username or password is incorrect
 - 1c. Marketing Manager retypes username and password
 - 1d. Username and password accepted
- Back to 1

A2: Internet connection timed out

From 3

- 3a. Marketing Manager is informed that internet connection has timed out
 - 3b. Marketing Manager refreshes page
 - 3c. Marketing Manager returns to compose new message
 - 3d. Marketing Manager resends the email to prospective client
- Back to 3

Error Sequences:

E1: Invalid email account

From 1

- 1a. Marketing Manager inputs username and password
 - 1b. Marketing Manager is informed that account is not valid
 - 1c. Use case fails
- Back to 1

E2: Invalid email address of P.C.

From 3

- 2a. Marketing Manager receives an email from mailer demon
- 2b. Marketing Manager is informed that the email address of the Marketing Manager has not been created
- 2c. Use case fails

Post Conditions:

1. Electricity consumption of the company is increased
2. Internet connection bill is increased
3. Marketing Managers' time is used up
4. Prospective client receives email from the company
5. Prospective client is directed to the link of the company's website

User Interface: Computer

4. Identification Summary

Title: Submit Proposal

Summary:

Main Success Scenario:

1. Marketing manager edits the draft message for submitting proposal.
2. Marketing manager attaches the company proposal in the messages.
3. Marketing manager inputs multiple email address on the prospective clients.
4. Marketing manager click the sends link.

Alternative Scenario:

- A1. Submit Proposal draft accidentally deleted
 - From 0
 - 1a. Marketing manager opens the trash folder.
 - 1b. Marketing manager click the draft of the email needed.
 - 1c. Marketing manager recovers the draft of the email.
 - Back to 0
- A2. Message in the draft deleted
 - From 1
 - 2a. Marketing manager presses the control key and z to undo the deletion.
 - 2b. Marketing manager recovers the message of the draft
 - Back to 1
- A3. Internet connection timed out
 - From 2
 - 3a. Message is display informing that internet connection has timed out.
 - 3b. Marketing manager refreshes the page.
 - 3c. Marketing manager returns to the page
 - Back to 3
- A4. Message appears that message can't be sent to email address
 - From 3
 - 4a. Marketing manager checks the email address.
 - 4b. Marketing manager detects typographical error in one of the email address.
 - 4c. Marketing manager corrects the email address according to his list of email address.
 - Back to 4

Error Sequences:

- E1. Email server down
 - From 0
 - 1a. Marketing manager goes to email site.
 - 1b. Marketing manager is informed that email server is currently down.
 - 1c. use case fails.
 - back to 0
- E2. No internet connection:
 - From 0
 - 2a. Marketing manager clicks the browser
 - 2b. Marketing manager is informed that there is no internet connection
 - 2c. Use case fails
 - Back to 0
- E3. Proposal not attached

From 4
 3a. Marketing manager checks the sent items for Prospective clients

3b. Marketing manager notices that one of the sent items for Prospective clients has no proposal attached.

Back to 4

Post Condition:

1. Electricity consumption of the company increases
2. Email contacts of the company increases
3. Email with the company proposal attached is sent to the prospective client
4. Prospective clients received the email from the company
5. Prospective clients increase

User interface:

Computer, Internet (email)

➤ **Benchmarking**

Metrics	Extra Ordinaire Janitorial and Manpower Services	City Service Corporation thousands
1. Number of customers	21	
2. Number of Transactions per day	50	More than 100 per day
3. Number of Branches	0	3
4. Type of Information System	Semi-automated system	Computer based system
5. Number of proposals	50 per week	thousands
6. Number of Services offered	19	9
7. Number of employees	21	More than a 100

➤ **Streamlining**

Process Cycle Time Reduction:

The group applied the Process Cycle Time Reduction in the proposed system by proposing the activity wherein the marketing manager of the company, who would be responsible for the web-based marketing system of the company, would just search prospective clients in the Internet instead of scanning over the pages of a telephone directory. More than that, the transferring of the information of the prospective clients would be easily transferred to the database by simply copying and pasting those from the Internet. The long process of dialing and waiting for an answer in the telephone calls would be eliminated simply when the activity which is to send email to prospective clients would be implemented. There would be no more long hours talk between the caller such as the marketing manager and the prospective clients over the phone because with the system, the website of the company would talk for the marketing manager. If the prospective clients got interested with the services they offer, prospective clients could simply send an email to the company. Soon, the marketing manager could already send the company proposal through email without letting the area manager to submit it personally. The long hours of travel from the company to the place where the proposal would be submitted could be eliminated. There would no longer have follow-up calls on the side of the marketing manager because the prospective clients could already give comment on the company website if they agree with the proposal or they could simply email without any hassles.

Big Picture Improvement

The analyst thought of a marketing system for the company wherein the existing system which is telemarketing would be changed into a web-based marketing system. Prospective clients, most especially those who are big time, are very busy and lack time to answer phone calls. That is why most of them

tend to hire personnel that would answer phone calls for them such as in a call center agency. Thus, if telemarketing system would be pursued upon by the company, they would really have a hard time acquiring more clients. That is why the group decided to propose a system wherein telephone calls and extra efforts like going to the company to submit proposal would be eliminated. And this system would be a web-based marketing system wherein the company would do all their transactions in acquiring clients in the web. The ones recommended by the group could be the new options for the company's new system and through these; the company could now focus more on the key success factors that would in turn have a great impact for the company by letting it earn and gain more revenues. Big picture improvement as soon as this proposed system would be implemented is that the company would be known by big businesses in the Philippines not only because of their performance but because of their marketing system that's according to the trend nowadays. Not only that but the people themselves who have already tested their performance could speak for them through comments and blog posts in their website.

Appendix 3

References:

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<http://www.amazon.com/Systems-Analysis-Design-Kenneth-Kendall/dp/0130415715>

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<http://www.amazon.com/Systems-Analysis-Design-Kenneth-Kendall/dp/0131454552>

Founders at Work

<http://www.amazon.com/Founders-Work-Stories-Startups-Early/dp/1590597141>