A

SYSTEMS ANALYSIS

& DESIGN

READER

BY

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To my mother,

For believing in the art and truth and

for supporting the idea of the book.

PREFACE

" The systems analyst systematically assesses how businesses function by examining the inputting and processing of <u>data</u> and the outputting of <u>information</u> with the intent of improving organizational processes. "

-- Kendall & Kendall

Systems Analysis course focuses on the practical application of systems analysis and design tools to business problems with IT orientation. The course provides a broad overview of fundamental tools and concepts based on the systems development life cycle and Rational Unified Process using the tool Unified Modeling Language.

This portfolio is the product of what I've learned from the past thirteen weeks of taking SYSANAL course. The first part of this book is the book reviews. This field is review about dealing with analysis of sets of interacting or entities often prior to their automation as computer systems, and the interactions within those systems. Systems Analysis is closely related to operations research. It is also an explicit formal inquiry carried out to help someone, referred to as the decision maker, identify a better course of action and make a better decision than he might otherwise have made.

The next part of the book is the use case narratives showing how each system process. This is the result of what we've learned in using the use case tool inUnified Modeling Language. Lastly, the third part is an analysis of a collection of interviews with founders of famous technology companies about what happened in the very earliest days.These interviews are required reading for anyone who wants to understand business, because startups are business reduced to its essence. Attached to this book is the Systems Analysis and Design (SAD) paper that we did. This study is about focusing on the practical application of Systems Analysis and Design in our chosen company, Omico Corporation.

Book Reviews

Chapter 1: THE SYSTEMS DEVELOPMENT ENVIRONMENT

This chapter introduced the Information Systems analysis and design, the complex organizational process whereby computer- based information systems are developed and maintained. Information system design is an organizational process where its system are built and rebuilt for organizational benefits. It also discusses about the important result of the system analysis and design which is the application software, designed for organizational functions like payroll, inventory management and market analysis. This chapter also emphasized the difference between process-oriented approach and data-oriented approach. Process-oriented approach focuses on the data the system needs to operate whereas; data-oriented approach focuses on the ideal organization of the data. Basically, a process-orientation provides a less stable design than a data-orientation. The various people in the organization who develops systems, including system analysts, programmers, IS managers, business managers, end-users, database administrators, human factors experts, telecommunication experts and auditors.

Lastly, this chapter elaborated the 7 major phases in Systems Development Life Cycle, or SDLC. The seven major phases: project identification, project initiation and planning, analysis, logical design, physical design, implementation, maintenance were solely discussed.

Chapter II: A System analysis and design project for Pine Valley Furniture

This chapter introduced the various skills, techniques, concepts used to analyze the business information management. The chapter gave concrete examples, the Pine Valley furniture Project, to clearly illustrate the how the life cycle was used in the proposed business. It also gave an overview to the system projects and explained how systems analysis and design are related.

Chapter 2 illustrated the development processes for modern systems. The SDLC was vividly discussed using the Pine Valley Project, so that it would serve as a guide in our own systems analysis project.

Lastly, this chapter highlighted the importance of project planning; various charts were also shown that portrayed every role of the people in the business cycle.

CHAPTER III: Requirements Modeling

In the systems analysis phase of the SDLC, you use models and other documentation tools to visualize and describe your proposed system. The purpose of a systems analysis phase is to understand the proposed project to make sure that it will support business requirements and build a solid foundation for the system development. The systems analysis phases include three (3) main activities: requirements modeling, enterprise modeling, and development strategies. In chapter 3 the study will be limited only to the 1st phase which is, requirements modeling. In the book, a requirement modeling is defined as a fact-finding to describe the current system and identify the requirements for the new system. These techniques include interviewing, documentation review, observation surveys, questionnaire sampling and research. To execute the techniques properly, the systems analyst must posses a strong analytical and interpersonal skills. This is to enable a sys analyst to identify a problem and develop a possible solution. Moreover, a systems analyst must communicate effectively with other people especially in a company. Hence, a systems analyst must decide on the people to interview, set interview objectives and prepare and analyze interviews.

In a company top managers expect the IT department to deliver the best possible information system in the shortest possible time. To fullfil these expectations, the IT department developed a user participation; team-oriented method that could result in better communication. A common technique called Joint Application Development (JAD), a team oriented plan that brings users into development process as active participants. Another team oriented plan is Rapid Application Development. According to Systems Analysis and Design by Shelly, the RAD provides a fast-track approach to a full spectrum of systems development task. Basically, it means that it is a resemblance to the SDLC.

One of the important topics discussed in Chapter 3, is the Unified Modeling Language or the UML. It is a widely used method to visualize and develop software to the eyes of a business user. The UML is also A visual

language that provides a way for modelling an object-oriented system. A UML also uses tools such as use case diagrams and activity diagrams to represent actors, their roles, and the sequence of transaction.

In conclusion, this chapter briefly discussed the techniques and user oriented methods that systems analysts must use as a guide in a business project. Lastly, the chapter briefly discussed the ways on how to develop effective documentation methods to use during systems development.. On how to list and describe systems requirements, including outputs, inputs, processes, performance and control.

CHAPTER IV: Enterprise Modeling

In Chapter 3-Requirements Modeling, fact-finding techniques to investigate a current system and identify a user requirements were discussed. Now, Chapter 4 explains the enterprise modeling techniques to develop a logical model of the proposed system and document the system requirements.

Systems analysts use many graphical techniques to describe an info system. Two popular tools are entity- relationship diagrams and data flow diagrams. An entity-relationship diagram (ERD) consists of rectangular symbol showing entities connected with diamond shaped symbols that describe the natural relationship of the entities. There are three types of relationship that can exist between entities: one-to one, one to many, and many to many. While Data flow diagrams (DFD) graphically show the movement and transformation of the data in the information systems. DFD's use four symbols: the process symbol: the process symbol transforms data; the data flow symbol shows data movement; the data store symbol shows data at rest; and the external entity symbol represents someone or something connected to the info systems. Also, various rules and techniques are used to name, number, arrange and annotate the set of DFDs to make them understandable.

Chapter 4 also explained the four main tools of Enterprise Modeling: entity-relationship diagrams, data-flow diagrams, data dictionary and process description. Also, this section explained the how to level and balances a set of data flow diagrams. A set of DFDs is like a pyramid with the context diagram at the top. The context diagram represents the information system's scope and external connections but no the internal workings. According to Systems analysis and Design 5th ed. Leveling is the process of drawing a series of increasingly detailed diagrams, until all functional primitives are identified. On the contrary, Balancing maintains consistency among a set of DFDs by ensuring that input and output data flows align properly.

CHAPTER V: Development Phase

Quote: "We're changing the world with technology."

Chapter 5 explains fourth stage in SDLC, which is the Development phase. The development phase involves converting design specifications into executable programs. Effective development standards include requirements that programmers and other project participants discuss design specifications before programming begins. The procedures help ensure programmers clearly understand program designs and functional requirements.

In the Development phase, examination and re-examination of the Requirements Statement is needed to ensure that it is being followed to the letter. Any deviations would usually have to be approved either by the project leader or by the customer.

Also, this Chapter clearly defines that the Development phase can be split into two sections, that of Prototyping and Production Ready Application Creation. Prototyping is the stage of the Development phase that produces a pseudo-complete application, which for all intents and purposes appears to be fully functional. Moreover, Developers use this stage to demo the application to the customer as another check that the final software solution answers the problem posed. When they are given the OK from the customer, the final version code is written into this shell to complete the phase.

Primary procedural programming activities include the creation and testing of source code and the refinement and finalization of test plans. Typically, individual programmers write and review program modules or components, which are small routines that perform a particular task within an application. Completed components are integrated with other components and reviewed, often by a group of programmers, to ensure the components properly interact. (Shelly G. 2003)

Organizations should complete testing plans during the development phase. Additionally, they should update conversion, implementation, and training plans and user, operator, and maintenance manuals. Finally, the chapter discussing System analysis leads to design decision, which exactly determines how the system operates in terms of process, data, hardware, network infrastructures, user interface, and other important factors in the systems environment.

CHAPTER VI: DEVELOPMENT STRATEGIES

Quote: "It seems irresponsible to continue development systems the old way."

James Martin, 1991

Chapter Vi is the final chapter in the systems analysis phase if the SDLC. This chapter explains the remaining activities in the SDLC phase, which include evaluation of alternative solutions, preparation of the system requirements document, and the presentation of the system requirements document to the management.

An important trend that views software as a service, rather than a product, has created a new software acquisition options. Chapter 5 explains development approach; the difference of the Web-based development systems and the traditional development. A Web-based development treats the software application service that is less dependent on thee desktop computing power and resources. Internet based development treats the web as the platform, rather than just communication channel. Whereas in a traditional development, systems a designed to run on local and wide area company networks. Many large companies use Web based systems to handle their business enterprises applications. Compared to traditional systems, Web-based systems are more scalable, less dependent on hardware and software, more adaptable to outsourcing the operation and the support of a software application. An example of this is if a company chooses to handle it's own software development need, it can create in-house system Systems analyst must consider Web-based development environment and other various outsourcing option, including application service providers and internet business service.

Finally, in this chapter I've learned about the basic framework that guides systems analysis and design, the systems development life cycle, with its seven major phases: project identification and selection, project initiation and planning, analysis, logical design, physical design, implementation, and maintenance. The life cycle has had its share of criticism and other frameworks have been developed to address the life cycle's problems.

Chapter VII: Initiating and Planning Systems Development Projects

Quote: "It seems irresponsible to continue development systems the old way."

James Martin, 1991

In this Chapter, the project initiation and planning is said to be critical activity in the life of a project. It is at this point that projects are accepted for development, rejected as infeasible, or redirected. The objective of initiating and planning systems development projects is to outline the objectives, feasibility issues, benefits, time, cost, and time schedule for the project. It is also at this phase that a systems analyst begins to play a major role.

As it's name implies, two major activities occur during the second phase of the SDLC, project initiation and planning. Project initiation focuses on activities designed to assist in organizing a team to conduct project planning. According to the authors, during an initiation, one or more analyst are assigned to work on a customer—that is a member of the business group that requested for the project must establish work standard and communication procedures this depends upon the size, scope and complexity of the project.

These element procedures are:

1.   Establishing the Project Initiation Team

2.   Establishing a relationship with the customer

3. Establishing the project initiation plan

4. Establishing Management Procedures

5. Establishing the Project Management Environment and Project Workbook

Project planning is the process defining clear and discrete activities and the work needed to complete each activity within a single project. The objective

of project planning process is the development of a Baseline Project Plan (BPP) and the Statement of work (SOW).The BPP becomes the foundation for the remainder of the development project. Whereas the SOW produced by the team outlines the objective and the constraint of the project for the customer.

I've learned that the Project Initiation and Planning process is a challenging and time-consuming activity that requires active involvement from many organizational participants. Moreover, this assessment does not focus on how the proposed system will operate but rather on understanding the scope of the proposed project and it's feasibility of completion given the available resources.

Chapter VIII: STRUCTURING SYSTEM REQUIREMENTS: PROCESS MODELING

Quote: "The extent to which all necessary components of a data flow diagram have been included and fully described"

Chapter 7 briefly discussed the tool used to soherently represent information gathered as a partn of requirements determination—data flow diagrams. Data flow diagrams (DFD) shows a model how data flow through an information system., the relationships among data flows, and how the data come to be stored at specific locations.(Shelly, G. 2003).DFD's also show the process that change or transform data because it concentrates on the movement of dated between processes, these process is called process models. DFD's are very useful for represemting the overall datd flows into, through, and out of an information system. Data flow diagrams rely on only four symbols to represent the four conceptual components of a process model: data flows, data stores, processes, and sources.

The first step is to begin with a context diagram, which shows the entire system as a single process. Next, generate a level-0 diagram which shows the most important high-level process in the system. There are four sets of data flow diagrams. The first set create models the current physical system. The next set models the current logical system. The third set models the new logical system, which may be different from the current logical system to the extent that it shows desired functionality, even if the new system may re-engineer the flow of the data between system components. The fourth set models the new physical information system.

DFD's should be mechanically correct, but they should also accurately reflect the info system being modeled. It is important to check the completeness and consistency and draw them as if the system modeled were timeless. According to Shelly, G. Systems analysis and Design 5th ed., Complete sets of DFD's should exetend to the primitive level where every component refects certain irreducible properties; for example, a process represents a single database operation and every datd store represents data about a single entity.

Chapter IX: Logicalisation of DFDs

This chapter started by reminding the readers of the two types of DFDs – the current physical, which gave an outlook on the seen and obvious procedures of a business, and the current logical which showed a viewpoint wherein the transformation of a procedure and the logical view of a physical DFDisseen.

Next, the book then introduces the concept of BPR, or Business Process Re-engineering. It has three steps – first, is improvement. This needs the less rationalizing. Next is re-designing, which needs more rationalizing than the first one because it states the reasons of why putting up the system in the first place is the right move. After this is re-engineering, this needs the most rationalizing and brains, because it is the one that describes the most dramatic improvements that a system can go through.

The book then gave a shorter second example, on Marine Construction, and gave the physical view at first as well then the logical view. It described the data flows, gave plenty of diagrams for all the levels of DFD and like the first example, used terms that were easy to understand. Logicalisation may seem tough, but it is very useful and stimulating, if you think about it. It is actually, the most important step in having a sound system. It is especially important in a system that practices BRP.

Chapter X: Strategic Information Systems

Strategic information systems or SIS are information systems whose unique functions or specific applications shape an organization's competitive strategy and provide it with competitive advantage. SIS may operate in any area of the firm, supporting administrative or operational activities. Systems analysts use many graphical techniques to describe an info system. Two popular tools are entity- relationship diagrams and data flow diagrams. An entity-relationship diagram (ERD) consists of rectangular symbol showing entities connected with diamond shaped symbols that describe the natural relationship of the entities. There are three types of relationship that can exist between entities: one-to one, one to many, and many to many.

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Case Study:

Founders at Work by Jessica Livingston

PAYPAL

Max Levchin's life serves as an inspiration to young programmers. One thing I've learned from his experiences is that you must do what you love and believe that even an aspiring programmer can make a difference to the world. What surprised me is that almost some of them started small and some by accident. The commonality of these founders is that they had perseverance and determination to build thing that worked. Levchin's success story made me realize that it's not all brains in the business world; it's also your determination to do things you know make a difference even though it could be rejected by people. In the business community, there are many barriers that would hinder you from success; it's the ability to surpass these challenges. Levchin was ones a geek who got tested by nature's purposes. He was ones a simple aspiring programmer like us, who got unaccepted and judged by the people but, he believed in his ideas, he believed in himself. Before they created the Pay pal, their initial idea was developing security software for handheld devices. Later on, he and his partner, Peter, discovered that they could create a program that where people could exchange money transaction via internet. After years of hard work their effort paid off, hundreds of people had discovered and liked what they created and thought of it as a business. At first they only wanted a small business, little that they knew it grew a lot faster than they expected. Like in other business there are always challenges that would test your patience, Max had his own experience. He almost gave up because the Pay pal had frauds that they almost lost large amounts of money. The good thing was they came up with a solution to stop the fraud.

I've realized that in the business community there are always challenges that would test your strength; as they call it "survival of the fittest". How you could maintain a grace under pressure. Also, you have to learn the art of commmaraderie, that it is important to have a good team. Finally, It is always best to learn from you experiences, that we fall in order to pick ourselves up.

HOTMAIL

Sabeer Bhatia, has proven himself one of the greatest contributors in our generation, Technological Era. Sabeer Bhatia and coworker Jack Smith created a start-up idea that made a difference and it is used until now, web-based email. Their initial idea was a web-based personal database they called Java soft. They were frustrated because their employer's firewall prevented them from accessing their personal email accounts. To solve their problem they created email accounts that could be accessed anonymously through a web browser. Like Max Levchin, he believed that his work would be successful in the near future, though he did not expect it in a short span of time. Basically, what I have learned from these programmers is the meaning of perseverance and hard work. From Sabeer Bhatia, I've realized the importance of business planning because it will generate your thoughts and ideas. It could help you in every step of your business, how to solve market problems, how to strategize, how to innovate.

APPLE

Isn't it amazing to know how these founders started up having only one thing? Their ideas. Ideas that made a big difference to the world of computers. These founders who just wanted the safety and convenience of the people. We aspiring programmers could also make a big difference if we believe in ourselves, like these people who found their magic at the very beginning of their adventure. What I'm trying to say is that we could also have this kind of dream by learning from these start-ups.

Steve Wozniak, The Woz, as he was known for, is considered as one of the greatest minds who contributed to the computer revolution. He is the co-founder of Apple Computers, together with Steve Jobs. Wozniak created the Apple I and Apple II computers in the mid-1970s. Eventually Apple sized an enormous amount of popularity and became one of the best selling computers during the 70's and 80's.

These founders have proven that money isn't about everything. According to Steve Wozniak, in his interview with Livingston *"All the best things that I did at Apple came from (a) not having money and (b) not having done it before, ever. Every single thing that we came out with that was really great; I'd never once done that thing in my life."* He quoted. It's amazing how their hobby on electronics became a lifetime business. How they started up being rejected by the people, how they only wanted was to prove to their grandchildren that they own a company without thinking that they'll be successful one day.

EXCITE

Joe Kraus? Who is this man? Well, Kraus is the founder of Excite, JotSpot, and DigitalConsumer.org. Now does his name ring any bell? The first time I read his interview I already learned my first lesson: Timing in technology business. Kraus and four of his friends created the first search engine, they called Excite. The company boomed the time it was released but like any other start- up, Excite also experienced a problem. Kraus and his friend Graham Spencer, technical director of Excite, got involved in a campaign for digital rights. And quite naturally, Kraus thought a solution to his problem.

One of the most surprising things I've learned from his interview is not all the things we planned will happen the way we wanted it to. In the business world, the key ingredients to success are direction, strategy and vision for the company.

SOFTWARE ARTS

Often referred to as "The Father of the Spreadsheet", Daniel Bricklin's place in the PC revolution will forever be one of prominence. While at Harvard, Bricklin began to formulate the groundwork for something that would eventually lead to his most influential products ever, VisiCalc. The idea for the project stemmed from Bricklin's belief that computers could be used in the business industry for more than just word processing. Up until that point calculations that now seem simple and practically error-free had to be done by hand. Not only was the work long and tedious, but it often produced inaccurate results. In 1979, it ignited the software revolution. VisiCalc was known as the "Killer app" for personal coputers.

One of the hurdles that Bricklin faced while they were building the product was having numerous ideas but did not know how to run it. He had this idea to create a general two dimensional layout but still he had this dilemma of running it. Bricklin did not know how he would make the spreadsheet easy for others to use. From that time, Bricklin decided that a computer could do the job faster, easier, and more accurately than had ever been done before. His program would enable users to manipulate numbers as easily as they could manipulate words. Budgets, cost estimates, inventories, and investments could be easily managed through one program. The benefit to the business world would be tremendous.

I learned that creativity is very important. You should know how to generate new ideas or concepts, or new associations of the creative mind between existing ideas or concepts. Also, one needs to have patience for such a project, though, required long hours of planning, coding, and testing. Bricklin had his own attitude towards success and money. He decided not to get a patent on VisiCalc which may have been a reason for the breaking apart of his company since similar spreadsheet programs appeared soon. In 1985, he said: *"I'm not rich because I invented VisiCalc, but I feel that I've made a change in the world. That's a satisfaction money can't buy"*.

LOTUS 1-2-3

Mitchell Kapor together with his partner Jonathan Sachs created

Spreadsheet software, Lotus 1-2-3, that could outdo Visicalc. Kapor was once a product manager for Visicalc when he created the Visiplot and Visitrend, a joint product to Visicalc. Soon after, Kapor left Visicalc and started his own venture in developing the Lotus products. The distinction of Lotus 1-2-3 from Visicalc is that the Lotus product has larger spreadsheets and added integrating charting, plotting and database facilities. Based on its potency, Lotus became the "killer app killer".

Computers we're introduced to us at the mid- 90's. At that time, when Lotus was developed we were still at the tip of learning the ABC's of computer. We didn't know how that worked, in fact I was only used to MS paint at that time. What I'm trying to say is that I can't judge which program was better, all I know of from what I have read is that Lotus made our way of living a lot easier. They have developed the spreadsheet more compatible and user- friendly

Let me give you a gist on how Kapor and Sachs started their business. Kapor was obsessed at personal computers and decided to buy one for his own', so he bought an Apple II and the rest was history. Originally Kapor worked for Visicalc and was inspired by doing something that could make a difference, something that could stand up well. Jon on the other hand, was one of the firsts who implemented the spreadsheet, but the only dilemma was Sachs had a hard time building a rapport with his co workers. Eventually Jon and his partner ended up with no plans at hand. Incidentally, Kapor asked Jon to work for him and help him build his little plan. Kapor believed that their ideas could properly work together. After some time, they created the spreadsheet that had more advantages that of the Visicalc. They created something that people want; a program that would help make the job of the people easier.

GROVE NETWORKS

Ray Ozzie, a graduate from the University of Illinois, was the founder of Plato Notes one of the earliest collaboration application. Ozzie wanted to develop collaboration software but doesn't have any funds to support his project. He later on developed the Lotus Symphony that made Mitch Kapor and Jonathan Sachs to invest in his project. Instead of working as an employee Ozzie founded the Iris Associates that collaborated with Lotus.

One nothing that Ozzie wanted to do was he wanted the end- users to be comfortable with the program that they were using. He wanted to build a system that would work instantly, right after download. Then on the development of the Lotus Notes had been flourishing. In Ozzie's company, what held their employees together was the belief that they could change the world. They believed that what they are doing has to have an impact to the people. Their belief motivated them to go through all the painstaking uncertainties.

One of the things that I learned from Ozzie is in a business; your employees should have the will to believe in something that they are trying to accomplish. Also, Ozzie pointed out the values that one should posses, one of which is hard work. Being determined to do the things that are o\important even though there are many obstacles along the way. Moreover, perseverance is one of the most important values I learned from Ozzie, was a person should be goal-oriented. He has to know his purpose on what he/she wants to do. Another thing was that person should never be a quitter, even though he/she is being discriminated. We must remember that changing people' habits is very difficult. We must nurture our relationships with the people who are outside your skill. Lastly, we should learn about the business ethics. Companies take their shape based on the personality characteristics and human interaction characteristics of the founders. Also, we should learn about the culture that you want to create in your company based on the positive and negative aspects that you witness from other leaders. You also have to respect your co-workers and not associate their

failures from the failures of your child. You as a team should compromise based on our skills. As for me, you should always be passionate and you should believe that whatever you do can make a difference to the world.

BLOGGER.COM

Out of all the stories that I've read about the startups, Evan Williams had a vivid impact on me. He is one of the successful founders that had been through numerous painstaking challenges.

Evan Williams was the cofounder of Pyra Labs. Evan first worked in Intel and HP as a web developer but later on realized that it was better to start his own company. He wanted to do something cool that people would use. Then on he created a web application where the people could place their thoughts, ideas or anything they wanted to share with other people. His main goal was to build projects for clients to help them organize their work and personal information. Evan together with Meg Hourihan, his business partner, believed that they could make their idea work. They also sought other's advices and help for their business. At first they called their site "Stuff" but later on Peter Merholz coined the term "blog", so they called their site "Blogger.com". It had a blast when they released the site to the public early '99. They thought that the site was used only for web geeks like them but they found out that "cool kids" also used their website. They were one of the first companies to have a blog on their site. Like any other companies, they to had their dilemma. Evan had a difficult time because he also had Pyra. He focused more on the blog that later on he lost track of the other. Evan had 30 projects but eventually died because of his lack of focus. Also the blogger app was for free so they didn't know how they could make money. Their business was still booming at that time and hired employees for their business. Williams got tangled up and decided to focus only on one thing; their blog site. After some time they focused in making the blog site better. They built more versions and added more features to the site. After some time, the world changed for Williams, their business declined and his employees, who some were his friends, left him because he had no money to pay them. His world turned up side down. When he went to the office everybody was gone and at that same night his girlfriend for 6 months broke up with him.

YAHOO

Among all the start-ups that I've read so far, Tim Brady's story is one of a kind. Why? It is because there business wasn't started by him; he was just a regular Joe who happens to be the room mate of the real founder, Jerry Yang. What's amazing about Brady's story is that even though he was not the founder of Yahoo; he was the one who made it all happen.

Jerry Yang and David Filo both Stanford grad students, were the ones who maintained Yahoo when it began early '99. Yang and Filo were both working on Yahoo when they asked Tim Brady to write a business plan for it. Before, Yahoo began only as a collection of links to research papers. A collection of interesting information they would like to place in the web. Eventually when the people came of known to this site, they were adding more and more categories to the site which made they site successful. Brady, on the other hand was in charge of the business plan, which he is considered to be the first employee of Yahoo. Yahoo made an alliance to different businesses that made them think of advertising. They started advertising and sold the package to five big companies; MasterCard was one. Yahoo's popularity grew and by that time yahoo had to add to improve on their UI. At that time, Yahoo also had a handful of competitors: Lycos, We Crawler. However, their competitors were focused on search but Brady's strategy was different. They did not solely focus on the browser per se, what they focused on was media. Similar to the previews start-ups yahoo also experienced some complexity in their site. Since Yahoo is a search engine, categories involving sex was highly viewed which made yahoo to completely remove some of the links in their site.

Brady and his co workers, Yang and Filo had been trough a lot. There was a time that in May of '95, there was a huge storm that the power grid went down for a few days. They had to use a power generator and take turns in filling the fuel for four consecutive days just so they could work on their project. Having been through all the adversities, the team of yahoo never gave up in their dream of a better web browser. For Brady, exhaustion and weariness was never an excuse to work on something big in a startup. There were times when he was really

upset, but never to the point of being tired. He never quit. He believed that he could achieve his goals through hard work.

Tim Brady's experience has taught me a lot! Partly about knowing myself and what my goals are. His experience let me realize that you when you want your life to have an impact; focus on your goals. As he always point out that "Quitting is NEVER the answer". Though Brady did not finish school, still Education is really important. Like Brady, business education gave him the confidence to know what he knew and what he did not. Additionally, you have to love what you are doing, so that you will be inspired to work. Things you like tend to be better. When it comes to business you should also have a strategy in advertising your business. You should know the rationale behind going public. Having an alliance with other companies is a good thing. I've learned a lot of things about Brady. His experience will be an inspiration in business especially in a start- up.

RESEARCH IN MOTION

At the helm of the Waterloo, Ontario-based company since leaving college and founding RIM in 1984, Lizaridis foresaw the potentials of mobile email. He has overseen every aspect in the development of the Blackberry. The incrisingly popular Blackberry changed the way organizations operate. The handheld was highly used by people in business and politics that ran their lives with this device. Lazaridis has been paramount in creating wireless devices that are easy to use and extremely useful -- a claim only a few others can make. RIM was one of the first companies to appreciate the importance of wireless networks. Research in Motion went public in '97 and is one of Canada's mostr admired tech companies.

One of the things that I learned from Lizaridis is in a business; your employees should have the will to believe in something that they are trying to accomplish. Also, Lizaridis pointed out the values that one should posses, one of which is hard work. Be determined to do the things that are important even though there are many obstacles along the way. Also, we should learn about the culture that you want to create in your company based on the positive and negative aspects that you witness from other leaders. You also have to respect your co-workers and not associate their failures from the failures of your child. You as a team should compromise based on our skills. As for me, you should always be passionate and you should believe that whatever you do can make a difference to the world. Moreover, perseverance is one of the most important values I learned from Mike Lizaridis, was a person should be goal- oriented. He has to know his purpose on what he/she wants to do. Another thing was that person should never be a quitter, even though he/she is being discriminated. We must remember that changing people' habits is very difficult. We must nurture our relationships with the people who are outside your skill. Lastly, we should learn about the business ethics. Companies take their shape based on the personality characteristics and human interaction characteristics of the founders.

MARIMBA

Arthur van Hoff had the developer's dream job: a key role on the Java development team at Sun Microsystems but he left in 1996 to build a business of his own, Marimba. Marimba is a software distribution company that grew from a 4-person start-up to more than 300 employees in the company. The company was started by Hoff and together with his team includes, Sami Shaio, Jonathan Payne and Kim Polese. At first they had no idea that they were going to make it because they believed that if they stick together as a team creating big ideas is not very hard. "Anybody can have good ideas" said van Hoff. They built all sort of things to evaluate what they wanted to build. One of the things they wanted to build was a user interface builder. It was an interesting idea but there weren't any tools for it. So that is why they decided to focus on software distribution.

At the beginning of their business adventure they came-up with the idea for subscription- based software. Rather than buying software, the users would just have to update their software. Though Marimba is holding its own in the competitive Internet software business, the company's direction has been consistently questioned, particularly by the media. Though Marimba is holding its own in the competitive Internet software business, the company's direction has been consistently questioned, particularly by the media. A push company called, Point Cast. Life on Java project has been a rollercoaster for van Hoff. Arthur Van Hoff and his java team had been through a lot.

Building a company from the ground up has afforded van Hoff the responsibilities and latitude a large company like Sun couldn't provide. He names the excitement and potential control of the new venture as the overriding factors which convinced him it was the right next step. He believes that every decision counts, if you make a mistake it's your job to make it right.

In a start-up business it is really important to find a co founder or a partner that could help you in putting-up your business. It is also important for you and your cofounder to build a rapport to have a balance in your start-up. Also, creating a work place that treats people well, will build good affinity with your employees.

One of the most surprising things I've learned from his interview is not all the things we planned will happen the way we wanted it to. In the business world, the key ingredients to success are direction, strategy and vision for the company.

GMAIL

Paul Bucheit was Google's 23rd employee. He was the creator of of the web-based email of Google which was later on called GMail. Although he was not the founder of Google, he contributed more to Google than the founders. Back in college, when it was hotmail who was widely used, his colleagues have to go back to the dorm just to check their mail. Then on he wanted to create a web-based email where you can check anywhere. After sometime he then worked for Google. One of his first projects was Google groups which has been one of Google's profound sites. For that reason, Bucheit was asked if he wanted to do a web-based email or personalization product. He gladly agreed.

On April 1, 2004, they released Gmail. It immediately became known for giving away 1000 MB of storage, while the others only offered 4 MB, as they had for many years. Paul's first idea was to archive everything. With a massive storage, still it was in the plan that the files can be deleted. But storage was only the most obvious difference, and our other improvements were just as important. Gmail included a quick and accurate search. It introduced powerful new concepts to organize email, such as the conversation view It provided a fast and dynamic interface from web browsers everywhere, popularizing the techniques that have since become known as AJAX.

This interface included many important features not commonly found on the web at that time, such as email address auto-completion, a slick spell-checker, keyboard shortcuts, and pages that update instantly. It included a smart spam filter to get rid of junk mail. Gmail provided free on both email forwarding and POP download of all the mail. Like Paul Bucheit always mention, "It depends on the situation" because his advices are not exactly the same as to what that person needs. He believed that you have to have a team that you're comfortable with. Some things might not work out they way we wanted them to, but you have to have faith in yourself. In a start-up, it takes pain and hard work to get the job done. As for me, Paul Bucheit really changed the image of Google. He may not be the founder but he sure did contribute a lot which made Goolge the top search engine. He made everything possible not only to his company but also for the convenience of the people.

WEBTV

For years Steve Perlman has been interested in making television interactive. He wanted the Web to look good on a TV screen as it did in a computer monitor. After days of working on his new project, he knew then on that it would be a big idea for a startup. He contributed a lot in his first startup. One of which is building systems for networking games. Together with his other cofounders, they worked fulltime in reverse engineering four video games: NBA jam, Mortal Kombat, a hockey game and some other one. In fact they didn't have enough time to rest. Steve would go on with no sleep for two days just to finish their project. He would even eat at his office to meet up with their deadline.

He also had big investor, one of it was Sony. Still they encountered some problems with their investors. The biggest issue they had was the concern that people did not want to interact with their TV.

VIA WEB

Graham's story is one of the most inspiring out of all the stories I've read about founders. Paul Graham made me realize; head first before plunging into the unknown. You have to be wise especially in a business venture. The part where Graham quoted "It's never a deal till the money's I the bank" made a great impact in being wise. His story made me realize that is not only about being smart, you have to be wise as well.

This is seen in the part where Graham emphasized about how they made a deal with their investors. "Even at the point where you walk in that room to sign the final papers, there still 10 percent chance the deal's going to fall through" He explained. According to Graham, it's alright if someone wants to make you an offer, but don't change your plans because of that. Thus, I learned that many things could go wrong with deals; you should never give in till you're absolutely assured that you'll get your part of the deal.

In a business, I learned that you should a strategy in getting in with your customers. Basically, Graham did whatever their customers wanted. Even at the extent of giving their software for free as long as their customers wanted, so that they would have more users. As to Graham' piece of advice you cant' launch a thing without having any users. Also, I learned that whenever you are writing an application for end users, it is best to keep on mind that you are writing for an audience that has been traumatized by bad experiences. I learned that software must be user- friendly or comfortable for the users. It is best to take into consideration the basics when it comes to user-interfaces. As regards to what Paul Graham and his team did, they realized that e-commerce was not all about transaction process but merely about the graphic design. It is all about how you could convince your users by how your site looked.

From the past stories of the successful IT professionals interviewed by Livingston, Graham stated that friends and business can also be a good combination. For Graham it is better to bequeath things to whom you trust. Moreover, I learned that in a career, it is very important to know the person's background. In knowing not only about his/her field of expertise but to know also about the person's attitude towards the business.

Lastly, the advice that Paul Graham stated "Make something people want" will always be an inspiration to me from now on. Simple and yet it could be the greatest advice in a start-up. I frankly believe on what he said because if you provide things that the people want, you will have masses of customers using your merchandise.

DEL.ICIO.US

Basically, Joshua's story taught me a lot of things, especially about time management. As what Schachter stated, "Do less of it, get it done". I agree to what Schachter said, because you could definitely finish your work if you try to focus on one thing first. If you have two things that you want to put together, take away until they go together so that you could focus more to get things done easily. As a student I could apply what I've learned from Schachter's advice about managing time. Regardless of having tons of paper works, at this time, I could now practice doing my works gradually instead of doing it all at the same time to keep me from pilling up works.

In a startup, I also learned that proper management is very much important in running any business. It will direct and guide the whole team towards the top. Also advertising is an excellent strategy in marketing. Taking to the press is one thing; so that your consumer would have a background on your startup. Moreover, I liked the fact that they were thinking in a realistic manner and hired a CFO to lead them, because they knew that management per se wasn't bestowed on any of them. I also realized that great ideas come unexpectedly. Similar to what happened to Joshua his idea of "tagging" came to him by surprise, that what made him start del.icio.us in the first place. In addition, I admire his determination and dedication in what his doing, also the creativity within him.

Lastly, you have to love what you are doing, so that you will be inspired to work. Things you like tend to be better. I've learned a lot of things about Brady. His experience will be an inspiration in business especially in a start- up.

ONELIST AND BLOGLINES

An Internet E-mail List Service once started because of spam. Mark Fletcher was imperfect to a business of the spam feature, so he decided to start a mailing list web application to his parents called ONElist to keep in touch. The service started very small because it was intended to be used by family members.The big turning point started when newsletter had came and Mark Fletcher's service was recognized by the press. Usually, it will be forgotten after a month or so, so Fletcher started quickly. Bloglines users were growing and more users were getting the hang of it. Most reporters interviewing Fletcher would mention that they were Bloglines users, even. Having a 150-person company would lessen their funding because they don't need much people on handling a company like this.

In economical perspective, the startup is a success with lesser people because the profit they make doesn't acquire all people in the company. That's why Fletcher often didn't want Vendor Companies to lead his company to the highest level. He wanted to do it on his own.

Their biggest competitor became News is Free, and even they are still better and has the competitive advantage, they didn't mind the problem of competition. The scary thing, at first for Fletcher would be that the system would be in danger because of crashes and data corruptions Finally, the easy thing about web-based service applications, is that when the application has a bug, it can be fixed in less than an hour or so, and the software can be fixed without upgrades.

CRAIGLIST

The 18th story I've read was Craig Newmark's surprisingly interesting background of how he started "Craig's list". I believe to say that Newmark's experience was also one of the inspiring stories of a startup. In business, the biggest entrepreneurial lesson I've learned from him is that you really need to trust your instinct. As Newmark mentioned, he did not follow his instinct when it comes to trusting people and ended up being swindled. I liked the fact that Newmark that they were thinking in a realistic manner and admitted that he wasn't a good manager which made him hire Jim Buckmaster as the companies CEO. This made me realize that proper management is very important. It is very essential to have someone who can manage your business well; this is shown in the part where Craig mentioned "It's was until Jim became management that we got good". Furthermore I also admire their determination to what they are doing.

In a start-up business it is really important to find a co founder or a partner that could help you in putting-up your business. It is also important for you and your cofounder to build a rapport to have a balance in your start-up. Also, creating a work place that treats people well, will build good affinity with your employees. One of the most surprising things I've learned from his interview is not all the things we planned will happen the way we wanted it to. Newmark emphasized that people share equal values, no matter what religious background that they have. Lastly, I learned the importance of trust. You should trust your instinct and moral compass. Newmark once said that this is the way people live, we just don't talk about it.

FLICKR

In my opinion, Caterina Fake's experience has been far the most inspiring among all the successful stories I've read in Livingston's book. Probably one of the reason is that she's a woman or maybe yet she's the first one to admit that money isn't about everything. In the part where she stated in her interview "The less money you have, the fewer people and resources you have, the more creative you become". I believe in what she said because even though you don't have enough capital for your business, still your creativity will motivate you to do better or to stimulate more ideas for your business.

Also, I've learned that it is also a good idea to have a family- friend investment because you practically know and have a background on the person you're going to work with in a business. This is seen at the beginning of Caterina Fake's story. When she narrated how she and her husband Stewart started their startup.

I also learned that working at the same place is very important; you and your coworker should work together so that you effectively plan and execute your system. I learned that timing is one of the key ingredients in a startup, to iterate and innovate your ideas fast. As what Paul Graham said at the previews interviews, he said that make something people want. My point here is that when Fake created Flickr, it was at the time when cameras were becoming more and more popular. More people would take photographs at weddings, birthday and on all different occasions. But then after digital photography was introduced; the people started taking more photographs and storing and sharing became a problem. That's where Fake came up with the idea of creating an online photo-sharing site.

I admire Caterina Fake. Not only because she's a woman, but because she believed that a woman like her could make a difference to the world. She proved to the rest that she also has a determination to what she's doing. She believed that women are able to put their hearts and souls into it in way many men cannot. Lastly, I learned that you should love what you are doing to motivate you in reaching you goals.

ADOBE

Charles Geschke is best known as the co-founder with <u>John Warnock</u> of <u>Adobe Systems</u> Inc., the graphics and publishing software company, in 1982. Before they founded Adobe, they developed Interpress that later on developed into Postscript. Interpress is a language that would allow the computer to talk to any printer. However, Xerox had slow pace in commercializing the technology that is why Geschke and Wanock started their own company, Adobe. When Charles Geschke came to Xerox PARC, he got involved in programming language and developed the tools that were used to build the star workstation. Soon after, he got the opportunity to work on graphics and printing technologies at PARC. They focused on the problem of how to take a variety of different printers. How they could develop some innovations on the printer.

One thing I've learned from Geschke is in a startup it is important to build a relationship with your customers. Make the customer feel that you have given them a great deal and that they should trust you in leading them where they needed to go. It is indeed important if you listen to your customers carefully so that you could understand their requirements and their needs. At that time I never knew that Adobe was taken for granted by some people; but that did not stop Geschke. In the interview he stated that it is at that point where you would know if your business had an impact. Financial success is not frankly the big thrill rather than having the ability to have an impact.

Lastly, I believe that Adobe had a big impact in our society because it is widely used around the world. Also, having the service of this startup in a third world country is also beneficial. Our country, the Philippines, is part of the third world country and it hasn't had a negative impact. In fact Adobe served as a big help especially to professionals. Moreover, this new approach allowed business users to greatly improve the quality and efficiency of their document production, spawning an entire industry.

WAIS, INTERNET ARCHIVE, ALEXA INTERNET

Brewster Kahle was the founder of WAIS (Wide Area Information Services), Internet Archive, Alexa Internet. He was the employee of Thinking Machine and left to found WAIS in the late 80's. He was an early member of the Thinking Machines team, where he invented the WAIS system. He later started WAIS, Inc. , the nonprofit Internet Archive, Kahle sold WAIS to AOL in 1995. A year after, he found Alexa Internet (sold to Amazon) with his co founder Bruce Galliat. At present, he continues as Director of the Internet Archive as of 2007. He is also a member of the Board of Directors of the Electronic Frontier Foundation and a key supporter of the Open Content Alliance.

I didn't know that Kahle's company was the first one to think of the internet as a distribution system of software: to give something away and to sell it. As the web came along and was a better underlying system, they became a web service company. One of the things I learned from Kahle was learning from his customers. You have to work with the actual business people because they will tell you what they need from you. They just wanted to make money.

Kahle also gave advices about having a good business partner. Compatibility is an important tool. Finding a good business partner is a fantastical valuable thing to do. It is also important for you and your cofounder to build a rapport to have a balance in your start-up. Also, creating a work place that treats people well, will build good affinity with your employees. Lastly, as adviced by Mitchell Kapor, do not work with people who would just say "Just help me make the business more successful". Work with people who are passionate, committed and believing in what they do.

HUMMER WINBALD

Ann is the co- founder and the Managing director of Hummer Winbald Venture Partners. She started Open systems, an accounting software company in 1976. Ann has served as a Director of numerous start-up and public companies and currently serves as a director of Voltage Security, Krillion, Mulesource and Star Analytics.

Even as a young girl, Anne wanted to figure out ways to make a living and supplement her income. The combination of being a math and science person, Ann was best on both. She finds business pretty amazing, and that's what motivated her to the top. Ann began her career as a systems programmer at the Federal Reserve Bank. It started of when she was chosen to build a student accounting system for a vocational school in Minnesota which became her stepping stone in building account systems for smaller companies. The problem was, people don't know have any idea on how to easily manage the accounts. That was until Winbald built Open Systems. used a $500 investment to co-found Open Systems Inc., a top-selling accounting software company. She operated Open Systems profitably for six years and then sold it for over $15 million. It was definitely a big hit because they produced a system that helped people, a system that had a benefit to the society.

In a business, I learned that as entrepreneurs, you should have the courage to do the job. They should have the ability to judge the business situation and have the ability to lead the people. Being an entrepreneur means having the ability to interact with the market place and to really build confidence into strategy. Also, I learned that in a startup you have to think outside the box and look at the big picture so that you could strategize and think of more ideas for your startup. This is seen in the last portion of Winbald interview. She stated that in a business, "You have to think like a big dog and find leverage to get there". I was inspired by Winbald's story. She's one of the successful women who proved that women could also make a difference.

ARSDIGITA

ArsDigita was a web development company cofounded by Philip Greenspun, Tracy Adams, Ben Adida, Eve Andersson and Jin Choi and was started in Cambridge, Massachusetts in the mid-1990s. The company produced a popular toolkit (the ACS) for building database-backed community websites, and flourished at the peak of the Internet bubble.

It was known for actively supporting an open-source version of its toolkit, although the community supporting that version split away from the company in 1999.. Greenspun claims that the venture capitalists staged an internal coup to drive the founders out of the management structure and installed incompetent professional managers with little idea of how to run a technical company, resulting in the collapse of the company.

According to the website, http://en.wikipedia.org/wiki/ArsDigita_Corporation.Ars Digita was a prime example of dot-com excess. Recruiting was performed nationally, with four tiers of hiring, ranging in salary from $80,000 to $150,000 annually. Potential recruits where required to pass a series of programming tests in the Tcl Programming Language. These problem sets included calculating Fibonacci sequences and other basic computer science tasks.

FOG CREEK

Joel Spolsky founded Frog Creek Software with his friend Micheal Pryor in 2000. He also created Joel on Software, where he could share his thoughts about software development, management, business, and the internet. Joel on Software later became one of the most widely read programming blogs. In fact it is one of the first startup that used the strategy of creating a blog to get the attention. Spolsky has recently started collaborating with Jeff Atwood on Stack overflow, a project to provide a free question and answer community website for software developers.

Experiences are the best teachers. This is evident in the part where Spolsky in the part where they figured out the entire business model. They figured that if they spend 4 percent more or 8 percent more giving people a better work environment, everybody would come to them. Spolsky knew enough experiences to know that almost everything you launch is going to sell $2,000 to $3,000 for the first month. In a consulting business, Spolsky hired a couple of really smart people. I learned that with having programmers, it is also best that the startup should also have an acc who knows the marketing field. Moreover, building relationship with your customers; communicating with your customers is one of the ways to know what they want.

Hence, as to what Spolsky said "Nothing works better than just improving on your product." Don't pay too much attention to the competition. It is best to remember that you should have to make software that people want, then improve it. One thing is. Creating a web blog is highly recommended in a startup so that you could advertise your product to the people. Lastly, don't start a company unless you can convince one other person to go along with you. It is very important to have a business partner that would their lives in doing your project. There are many programmers out there but it only takes a programmer who is patient and goal- oriented for the startup to be a success.

37 SIGNALS

37 Signals was co founded by Jason Fried as a web design shop in 1999. 37 Signal transitioned from consulting company to a product company in early 2004. David was a part of the management team of 37 Signals 2.0. David Heinemeier Hansson is widely known as the creator of the web-application framework Ruby on Rails, the infrastructure software that they used to build all their applications at 37signals. At present David is busy managing his latest project the Ruby Rails 2.0 which was launched early December of last year.

David had been blogging personally on Loud thinking. It all started when they came up with the idea that blogging can be a good way of distributing information between people. The project blog was the first part of Basecamp. The dilemma that they had was having a gap on either MS project or email. Managing a project by sending emails back and forth was very messy and doesn't work. Still they have to adapt to the process that was mandated from the heavyweight applications.

I was amazed in the part where Hansson mentioned about Basecamps' success. Basecamp was such a success because it's not more focused. Also, it was born on environment that was focused on productivity and focused on being able to deliver within constraints. In a business, it is good to be market-driven in the sense that you should know what' going on, but you can't let the customers drive your product development. You have to innovate on behalf of the customers, but they often don't know what they want. As programmers it is important to be able to drive both framework development and product development with a strong vision.

Ruby on Rails is an open source web application framework for the Ruby programming language which is often utilized by web developers for its suitability for short, client-driven projects. (http://en.wikipedia.org/wiki/Ruby_on_Rails). Everyone from startups to non-profits to enterprise organizations are using Rails. I believe that this startup is very helpful especially for startups.

FIREFOX

Firefox is a web browser just like Microsoft's Internet Explorer. This started as a hobby side project and was never intended to become a business. Blake Ross and Dave Hyatt were the creators of Firefox. They started Firefox in 2002 because of their frustration from Netscape's browser. Before, Blake Ross had interned at Netscape, when he returned during summer, he found out that Netscape browser had become a frustrating one and they were sacrificing the user experience just to monetize the browser and become a promotional vehicle to support the Netscape.com portal site. They didn't encounter any financial problem, but the only thing they were worried is about the name of their browser.

At first, it was called Phoenix, but after a while they found out that there was also a company called Phoenix Technologies and that they were also doing a web browser. So they renamed it as Firebird, because of their logo. The problem was that there was already an open source database called Firebird, so they have to change the name again. Finally, they come up of the name Firefox which in Chinese means red panda. Firefox didn't have any problem in getting users, but the thing was that the users that they were getting weren't their target audience.

After Firefox, Blake Ross and Dave Hyatt started their next project which was Parakey. Experiences are the best teachers. This is evident in the part where Spolsky in the part where they figured out the entire business model. Before reading this case study, I didn't know that there were so many people using Firefox and I was thinking that Firefox and Internet Explorer were the same that they don't have any difference. But after reading this case study, I realized that Firefox is much better than Internet Explorer.

SIX APART

Husband and wife Men and Ben Trott started Six Apart in their apartment in 2001.Six Apart was named after the number of days between their birthdays. Trott's personal blog is growing, at that time Mena was dissatisfied on the blogging software. So she and her husband, Ben, decided to make one for their friends. Mena started with a blog called Dollar short in April of 2003. She felt the need to have a creative outlet. As they got more involved they became more ambitious. At that time they wanted to start a company. They started Movable Type, which quickly became popular. Around July 2002, Movable Type as in demand but they did not enjoy the pleasure of doing Movable Type. So they created another, but even harder. They formed LLC in July 2002 right before they started Type pad and they still don't have any funding.

In the interview Mena told the story of how she started blogging. She and her husband, Ben, felt like they did not have any friends. So she wanted to make a blog that have a connection to other people online. When they started their startup they did not have any funding. They did not ask for any money instead they asked for donation. People started donating for their startup. They always had the "win-win" attitude towards their goals. Lack of experience is what held them back. The angel money amounted to half a million, enough to start a business. Six Apart was founded in September 2001 after Ben, during a period of unemployment, wrote what became Movable Type to allow Mena to easily produce her weblog. When version 1.0 was put on the web, it was downloaded over 100 times in the first hour. You can see that the company was founded by bloggers, for bloggers.

I learned that in a startup you have to think outside the box and look at the big picture so that you could strategize and think of more ideas for your startup. You have to innovate on behalf of the customers, but they often don't know what they want. As programmers it is important to be able to drive both framework development and product development with a strong vision. Lastly, LOVE you JOB! That's the thing that can keep you inspired. Always have a positive attitude in reaching your goals.

USE CASES

Course Enrollment
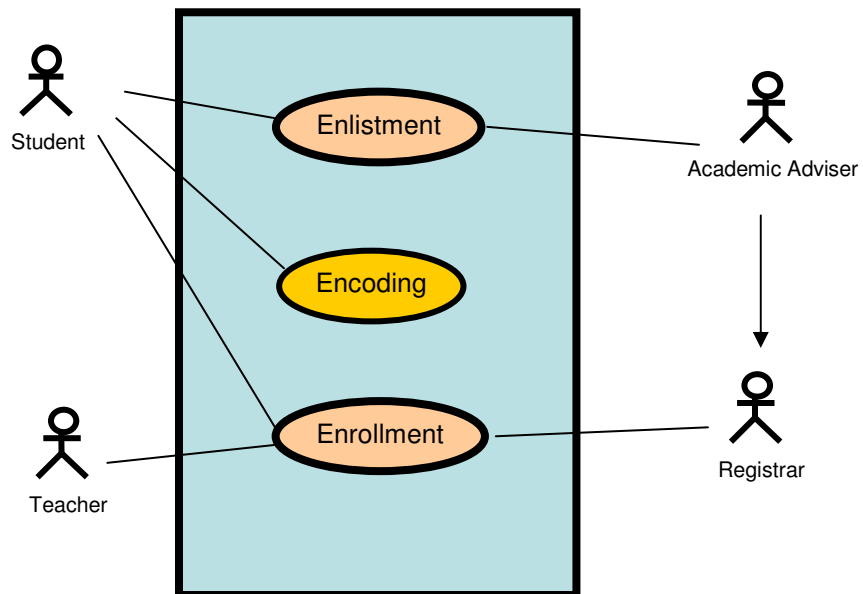
Identification Summary

Title: Course Enrollment in CSB

Summary: this use case allows student from CSB to enroll for next term.

Actors: Student, Teacher, Registrar, Academic Adviser.

Creation Date: 04/06/08   **Date of Update**: ??

Version: ??   **Person in Charge**: Student

Flow of Events

Preconditions:

1. Students must be admitted in CSB

2. Student's class record must be approved by Academic adviser

3. Student must be cleared from all records.

4. Server must be connected to the network.

Main Success Scenario:

1. Student access enlistment via the web.

2. Student selects enlisted courses.

3. Student submits selected courses to the website.

4. Website accessed by the approval of the Academic adviser.

5. Student must check website on the approval of Academic Adviser.

6. Student select desired schedule.

7. Students must claim Enrollment Assessment Form (EAF) from registrar.

8. Pay tuition fee in the Registrar's Office.

Alternative Sequences:

A1. Incorrect student log-in information.

a. Website informs student about invalid user name and password.

A2. Incorrect selection of subject.

a. Student can change the invalid input of subjects.

Error Sequence:

E1. Pending records

a. Website informs student about the pending records. Upon information, if student is unable to clear pending records, student cannot enlist.

Post Conditions:

1. Student is now enrolled in CSB.

2. Student's ID is validated.

3. Official Receipt of Enrollment will be released.

UI (User Interface) Requirements:

- The input/output mechanisms available to the student must be:
  o Connected to the network
  o Student is currently enrolled in CSB

Non- Functional Requirements:

- Response Time: The Website must respond within maximum limit of 5 seconds.
- Server must be connected to network in order to enlist.

Barangay Clearance
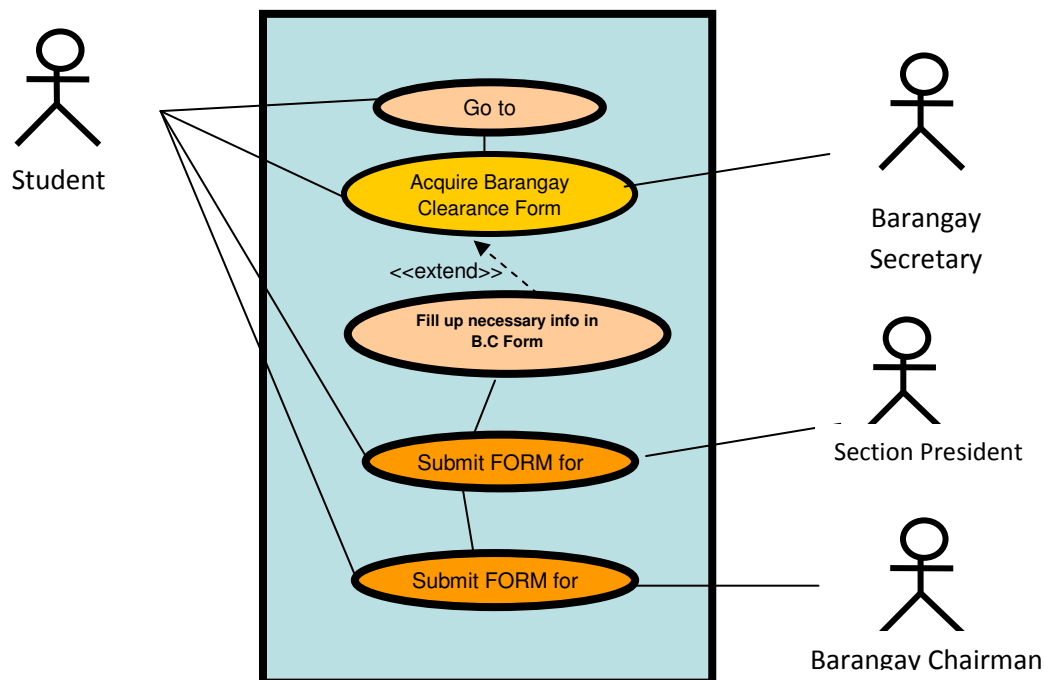
Identification Summary

Title: Request for Barangay Clearance in Barangay Don Bosco

Summary: this use case allows student to get a Barangay clearance at their Barangay.

Actors: Student, Barangay Chairman, Barangay Secretary, Section President

Creation Date: 04/09/08 **Date of Update**: 04/09/08

Version: ?? **Person in Charge**: Nina Tasha A. Reyes

Flow of Events

Preconditions:

1. The resident must be cleared from all derogatory records.
2. The resident must have any of these four (4) uses for the request for a Barangay Clearance:
   a. Getting a business permit;
   b. Traveling Abroad;
   c. For academic purposes.
3. The resident must be a legal resident of their Barangay.

Main Success Scenario:

1. The resident goes to their respective Barangay Hall.
2. The resident must request Barangay Clearance Form from the Barangay Secretary.
3. Barangay Clearance must be submitted for the approval of Section President/ Home Owner Association President.
4. Submit Form to the Barangay Secretary for record clearance.
5. Barangay Secretary submits approved Barangay Clearance Form to the Barangay Chairman for final approval.
6. Barangay Chairman must sign the Barangay Clearance for if the resident is cleared from all records.

Alternative Sequences:

A1. Incorrect entry of Address
   a. Secretary will inform the resident for the invalid address.

A2. Incorrect selection of purpose of request.

a. The resident can change the purpose of request if invalid.

A3. The resident comes to Barangay Hall during lunch break.

a. Resident can wait until the person-in-charge comes back.

Error Sequence:

E1. Pending records

a. Barangay Secretary informs the resident about the pending records. Upon information, if resident is unable to clear pending records, student cannot receive Barangay Clearance Form

E2. The resident has no legal residence certificate.

a. The resident cannot apply for a Barangay Clearance.

Post Conditions:

1. The Resident receives the proof of having no adverse derogatory report in their barangay.

2. The resident's record has been cleared and validated.

3 .The resident can only use the Barangay Clearance Form six (6) months from the date applied.

Student Drivers' Permit
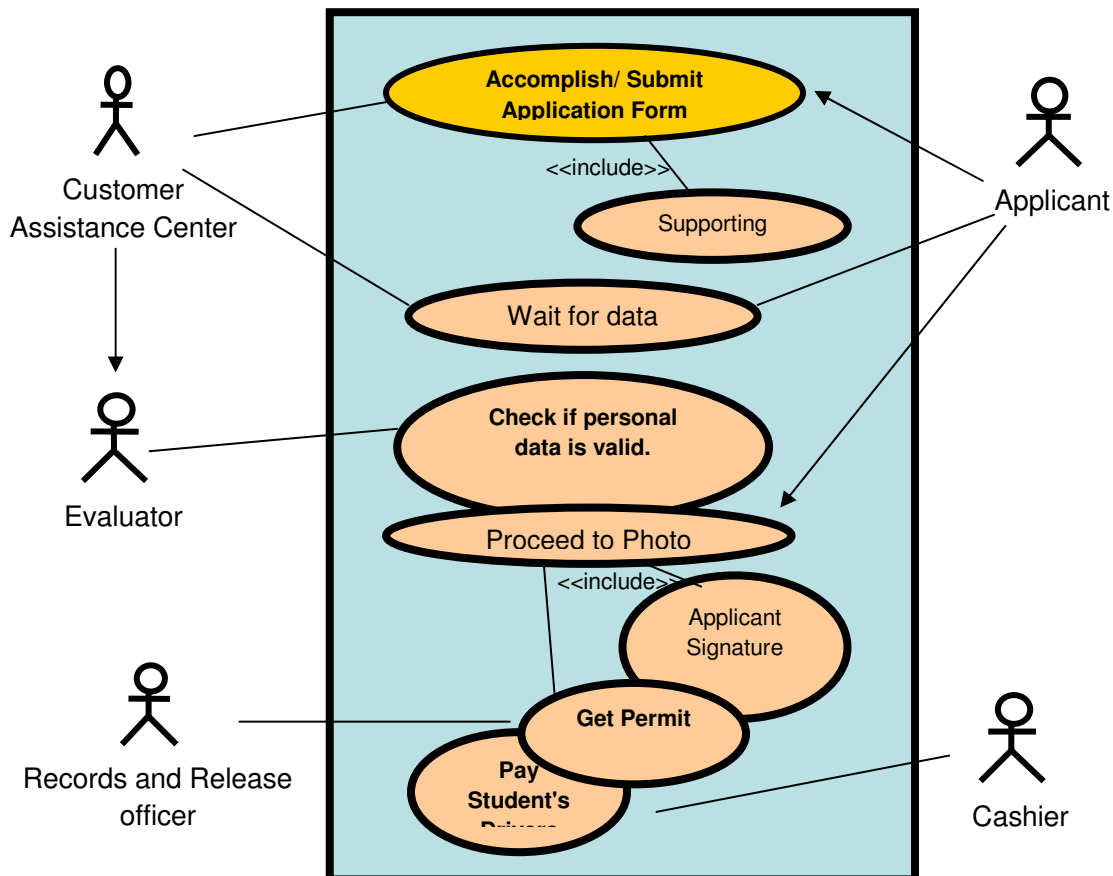
Identification Summary

Title: Student Driver's Permit

Summary: This use case allows a student to apply for a student driver's permit

Actors: Applicant, Customer Assistance Center (CAC), Evalutator, Records and Release Officer, Cashier

Creation Date: July 3, 2008

Version: 1.0

People-in-charge: Reyes, Nina Tasha A.

Flow of Events

Preconditions:

1. The applicant should be at least 16yrs. old
2. The applicant should have a photo copy of Birth Certificate and recent ID picture.

Main Success Scenario:

1. The applicant will go to the Land Transportation Office.
2. The applicant will ask and get an application form from Customer Assistance Center.
3. The applicant must accomplish all supporting documents.
4. Applicant must submit requirements to Customer Assistance Center
5. The CAC confirms the complication of requirements.
6. The CAC officer returns application form to applicant.
7. Applicant will proceeds to window 6 for data to be checked by the Evaluator.

8. Applicant goes to Photo Booth A for picture to be taken.
9. Applicant Pays 150php to cashier for application fee
10. The receipt will be given to the applicant by the desk officer
11. The applicant will now go to the records and release officer to get driver's permit.

Alternative Sequence
1. From 7
   1.1 The applicant will receive confirmation from the office.
2. From 1
   2.1 The applicant gets his application form by downloading from the website of the LTO office.

Error Sequences
1. From 4
   1.1 The office is closed when the applicant returned.
   1.2 Use case fails.
2. From 6
   1.1 The applicant does not have enough money for the payment.
   1.2 Use case fails.

Post Conditions
1. The applicant does now have a driver's permit
2. The applicant has now permit to drive with a guardian.

User Interface Requirements
- The input/output needed in the applying must be:
  • Application form
  • Receipt
  • Money
  • ID picture
  • 1 valid I.D. card
  • Birth Certificate

Non-Functional Requirements
- Response Time: The transaction should be depending on how fast the applicant completed the necessary requirements.
- Availability: The office must be open on the time of transaction.
- Integrity: The requirements must be completed accordingly.

Linkedin.com
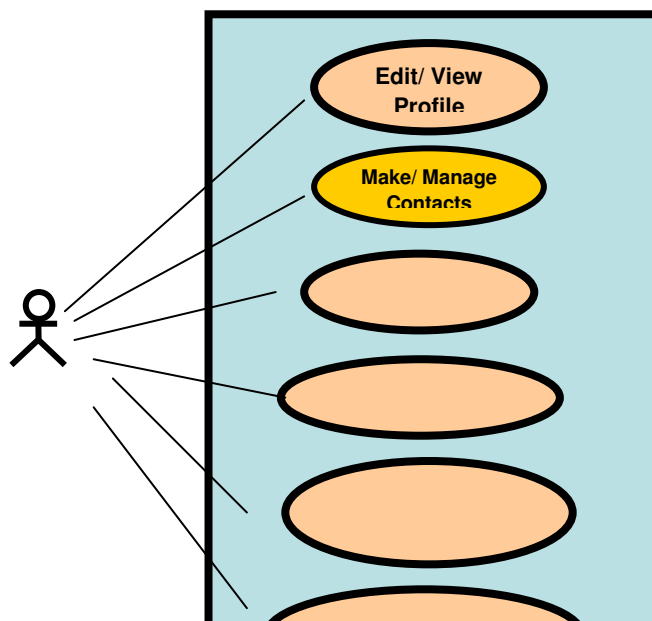
Identification Summary

       Title: Edit/ View profile in Linkedin.com

       Summary: This use case shows the process of editing/ viewing the user's profile.

       Actors: Linked In user

       Creation Date: 24 July 2008   People-in-charge: Nina Tasha Reyes

       Version: 1.0

Flow of Events

Preconditions:

1. The user must have a linked in account

       2. The user must have professional background

        3. The user must have internet access.

       Main Success Scenario:

1. User checks home page
2. User selects profile
3. Upon selecting profile, user edits current profile by adding information about the user.
4. User inputs information summary
5. User inputs experiences
6. User inputs educational background
7. User checks recommendation
8. User inputs additional information if desired
9. User can edit/ approve new connections
10. User saves updated profile
11. User views edited profile
12. User checks profile completeness

Alternative Sequence

A1. No Linked In account

From 1

    2. User can create linked in account

A2. Temporary incorrect entry of information

    From 4

        5 User could change saved data

Scenario goes back point 3

A3. User has not yet completed profile

    From 3

        5 User supply information to satisfy profile completeness

A4. Request for recommendation replacement

    From 7

        8. User can request for replacement

        9. Wait for new recommendation

        10. Approve recommendation

    Scenario goes back to point 7

A5. User rejects contact invitation

    From 9

        10. User can reject invitation

    Scenario goes back to point 9

Error Sequences

E1. Unable to access internet

    1. User cannot go to site.

    2. Use Case fails

E2. Encountered Virus

    3. User connectivity was interrupted by a virus

    4. Use case fails

Post Conditions

3. User has Linkedin account
4. User has updated Linkedin account
5. User has updated profile account
6. User can view profile
7. Users profile can now be viewed

- User Interface Requirements
  - The input/output needed in the posting to multiply.com

  - Linked in account
  - Professional Background

ePURSE
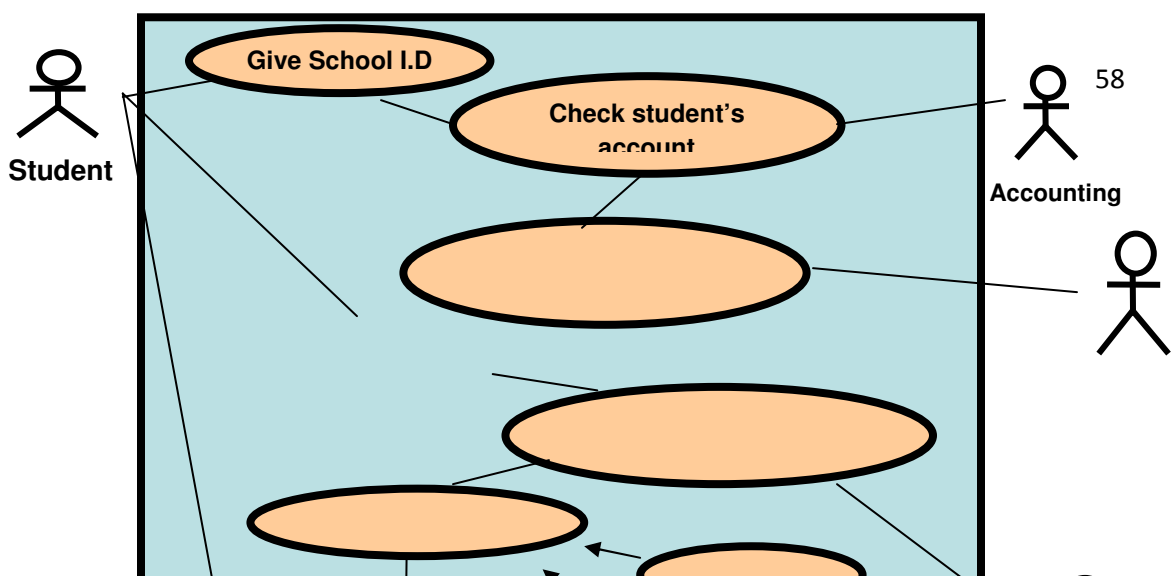
Identification Summary

Title: e-Purse Services

Summary: This use- case describes the process used by the student in acquiring an e-purse sevice.

Actors: Student, Cashier in window 1, ACTC assistant, Accounting Office Secretary

Creation Date: 18/06/08   **Date of Update**: 18/06/08

Version: 1.1   **Person in Charge**: Nina Tasha A. Reyes

Flow of Events

Preconditions:

1. Student must be enrolled in College of Saint Benilde.
2. Student must have a valid school ID.
3. Student requests e-purse
4. Database must be connected to the server

Main Success Scenario:

1. The Student will surrender valid school ID in the Accounting Office.
2. Accounting Office secretary checks student account.
3. Accounting Office secretary transfer's student's account in window 1
4. Student pays desired amount with a minimum amount of Php. 50.00
5. Window 1 Cashier gives receipt of e-purse to Window 4.
6. Student gives ID number, password including six (6) digit pin number.
7. ACTC assistant register's student e-purse account to school ID.
8. Student receives school ID

Alternative Sequences:

A1. Incorrect entry of student ID number and Password.

a. Database will inform invalid student account

      a. Student can attempt three (3) tries.

A2. Student does not comply with minimum amount of e-purse

      a. The student will be informed to pay above or exact amount of Php 50.00

A3. Student comes to registrar during break time.

a. Student can wait until the person-in-charge comes back.

Error Sequence:

    E1. Pending records

      a. Accounting office secretarty informs the student about the pending records. Upon information, if student is unable to clear pending records, student cannot acquire for e-purse.

    E2. Student is not enrolled in CSB.

      a. Only students enrolled in CSB can apply for an e-purse.

    E3. Student can only use e-purse service only on Benildean Campuses.

Post Conditions:

    1. Student's e-purse is currently available for use until maximum amount is consumed.

    2. Student can now use e-purse services only inside school premises.

Multiply.com
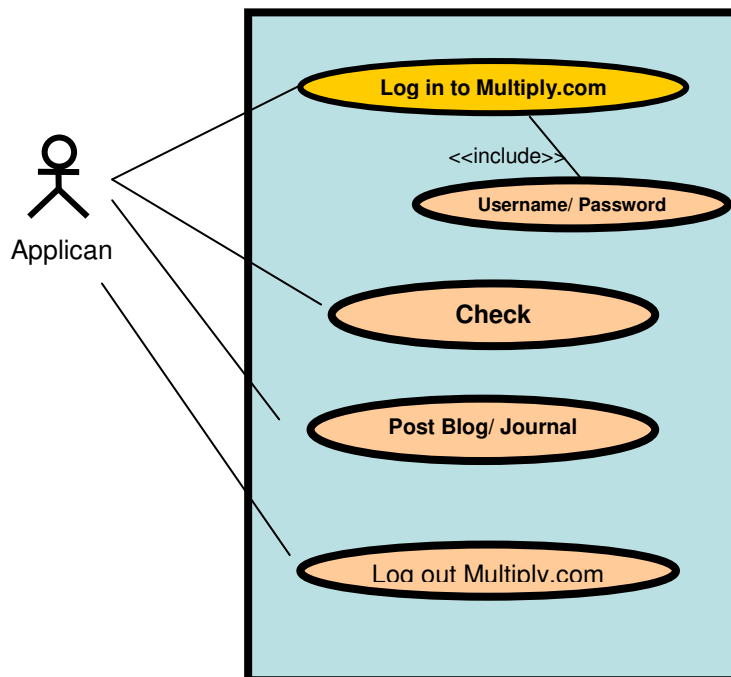
Identification Summary

Title: Post to Blog/ Journal

Summary: This use case shows how to post a blog in Multiply.com site

Actors: Multiply user

Creation Date: 16 July 2008   People-in-charge: Nina Tasha Reyes

Version: 1.0

Flow of Events

Preconditions:

1. The user must have a multiply account.
2. The user must have internet access.

Main Success Scenario:

1. User logs in to Multiply.com
2. User checks home page
3. User posts blog/ journal to site
4. User saves blog/journal
5. User logs out site

Alternative Sequence

A1. No multiply account

From 1

2. User can create multiply account

A2. Temporary incorrect entry of blog

From 4

5 User could change saved data

Scenario goes back point 3

Error Sequences
E1. Unable to access internet
   E1. User cannot go to site.

Post Conditions
8. User has new Bog entry
9. User has updated multiply.com
10. User can view saved blog/journal
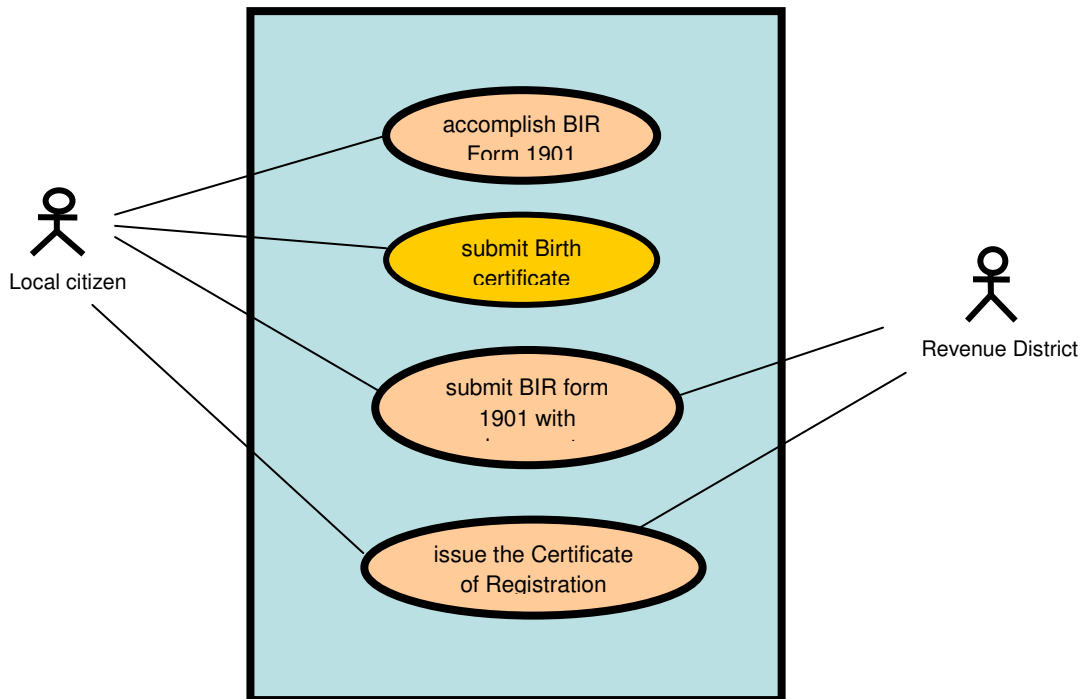11. Other users can now view entry of the primary user

- User Interface Requirements
  - The input/output needed in the posting to multiply.com
    - Multiply account
    - Blog entry

Taxpayer Identification Number

Identification Summary

Title: Getting a Taxpayer Identification Number

Summary: This use case allows a citizen to apply for a Taxpayer Identification Number

Actors: Applicant, Revenue District Officer (RDO)

Creation Date: July 7,2008   Date of Update: ??

Version: 1.1   Person in-charge: Nina Tasha A. Reyes

Flow of Events

Pre- Condition

1. The Bureau of Internal Revenue (BIR) must be open
2. The employees must be available for assistance
3. There must be application forms available. (via Internet or in the BIR office) itself)

Main Success Scenario

1. Applicant must accomplish BIR Form 1901.
2. Applicant must submit Birth certificate or any valid identification showing name, address and birth date.
3. Applicant must submit BIR form 1901 together with document requirements to RDO.
4. The RDO shall issue the Certificate of Registration (Form 2303).

Alternative Sequences

1. From 1

   The applicant gets his application form by downloading from the website of the civil service office.

2. From 2

The applicant failed to give complete document requirements

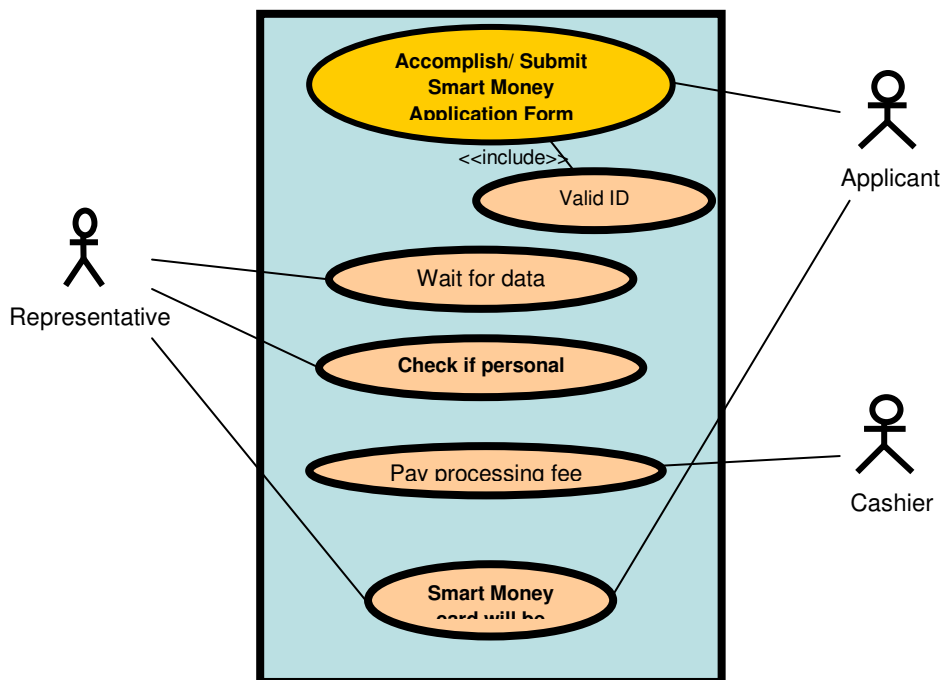- The applicant will have to come back with complete documents

Error Sequences
3. From 4

1.3 The office is closed when the applicant returned.
1.4 Use case fails.

Smart Money

Identification Summary

    Title: Applying for Smart money

    Summary: This use case shows steps in applying for Smart Money

    Actors: Applicant, Smart representative

    Creation Date: July 16, 2008

    Version: 1.0

    People-in-charge: Nina Tasha A. Reyes

Flow of Events

    Preconditions:

4. The applicant should be 12 yrs. Old above.
5. The applicant should have money.
6. The applicant must have a photocopy of valid Id
7. The Applicant should have a Smart buddy sim card

    Main Success Scenario:

12. The Applicant should go to any Smart Wireless Center
13. The applicant should activate Smart Money account via Smart mobile phone
14. The applicant should accomplish Smart Money Application Form with a photocopy of Valid Id
15. Applicant should pay Php 30 for processing fee to cashier
16. Upon application, smart money card will be delivered to specific address after three (3) days

    Alternative Sequence

3. Application via web
    From 1

2. The applicant can accomplish Smart Application Form via web

3. Applicant can get Smart account via web

4. Applicant waits for confirmation of Smart Representative

Scenario goes back to point 2

4. From 4

5. The applicant will receive confirmation from the office

Error Sequences

4. From 4

   1.5 Applicant does not have enough money to pay application form

   1.6 Use case fails.

5. From 3

   2.1 Applicant has no valid Id

   2.2 Use Case fails

Post Conditions

12. The applicant can now r**eload or deposit money in my Smart Money wallet.**

13. Applicant has discount and privileges at merchant partner establishments

14. Applicant can avail seasonal promotions

15. Applicant can have loyalty points for cards enrolled in the Smart Money Loyalty program.

16. The list of the smart money user had increased.

Download PDF in Emerald
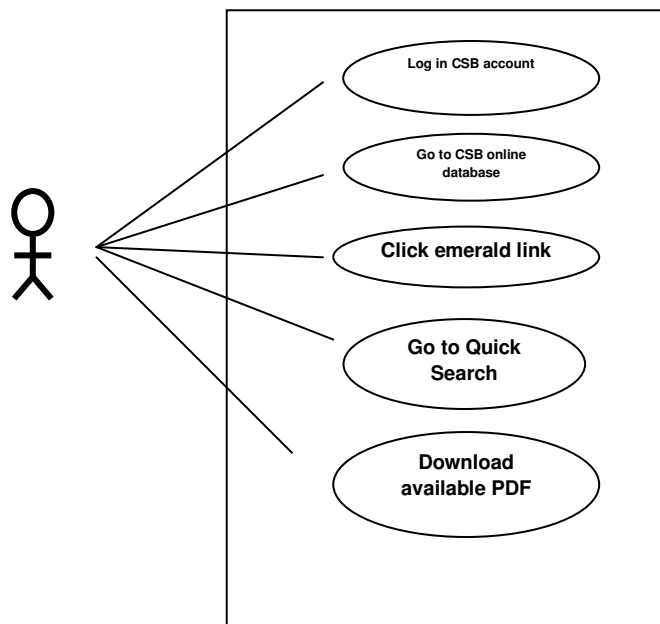
Identification Summary

Title: Download PDF file in www.emeraldinsight.com
Summary: This use case shows the process overview on how to download PDF file in emerald insight.com
Actors: CSB Student
Creation Date:15 Aug 2008   Person in-charge: Nina Tasha Reyes
Version: 1.0

Flow of Events
Preconditions:
1. The user must be currently enrolled in De La Salle College of Saint Benilde.
2. The user must have internet access.
Main Success Scenario:
1. Student must go to DLS-CSB website.
2. Student logs in to CSB account.
3. Student goes to CSB online database
4. Student clicks Emerald link
5. Student goes to quick search
6. Download available PDF file

Alternative Sequence
   A1. Temporary incorrect entry of student account
   From 2
    3. User goes back to main page

   A2. User is not a student in CSB.
   From 1

4. User can go to emeraldinsight.com
Scenario goes back point 5

A4.CSB account expires for maintenance (temporary)
From 2
4. User goes back to website and sign up again

A5. User cannot access PDF file.
From 6
8. User must create emerald account.

Error Sequences
E1. Unable to access internet
1. User cannot go to site.
2. Use Case fails
E2. Encountered Virus
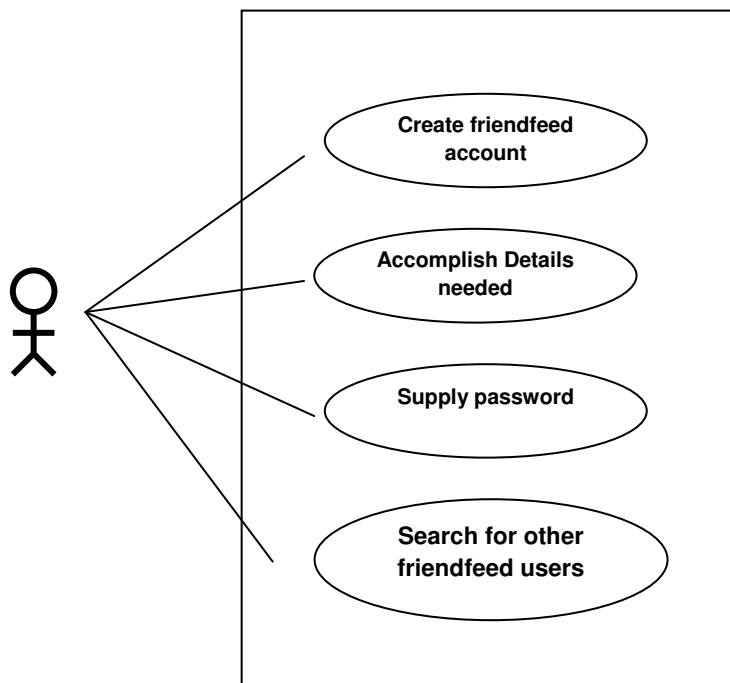3. User connectivity was interrupted by a virus
4. Use case fails
E3 User cannot access PDF file
1. User cannot provide necessary details to access file.
2. Use case fails.

Post Conditions
1. User can now access online files from emerald
2. User can now use emerald site for research purposes.

Friendfeed.com

Identification Summary

    Title: Getting an account in friendfeed.com

    Summary: This use case shows the process overview on how to get friendfeed account.

    Actors: PC user

    Creation Date: 31 July 2008   Person in-charge: Nina Tasha Reyes

    Version: 1.0

Flow of Events

Preconditions:
1. The user must have an existing email account.
2. The user must have internet access.

Main Success Scenario:
1. User creates an account in www.friendfeed.com
2. User inputs existing email address
3. User inputs name
4. User inputs desired friendfeed name
5. User inputs password
6. Confirm password
7. Click create account button
8. Search for friends who has friendfeed or other services that is supported by friendfeed

Alternative Sequence

A1. Temporary incorrect entry of details.

From 2

2. User can go edit information.

A2. Temporary incorrect confirmation of password
From 6
    4. User is given another chance to input password
    Scenario goes back point 5

    A4.Friendfeed expires for maintenance (temporary)
    From 2
 3. User goes back to website and sign up again
    A5. Search friends with other friendfeed supported accounts
    From 8
    8. User can find friends from other account supported by friend feed (twitter,flikr etc.)

Error Sequences
        E1. Unable to access internet
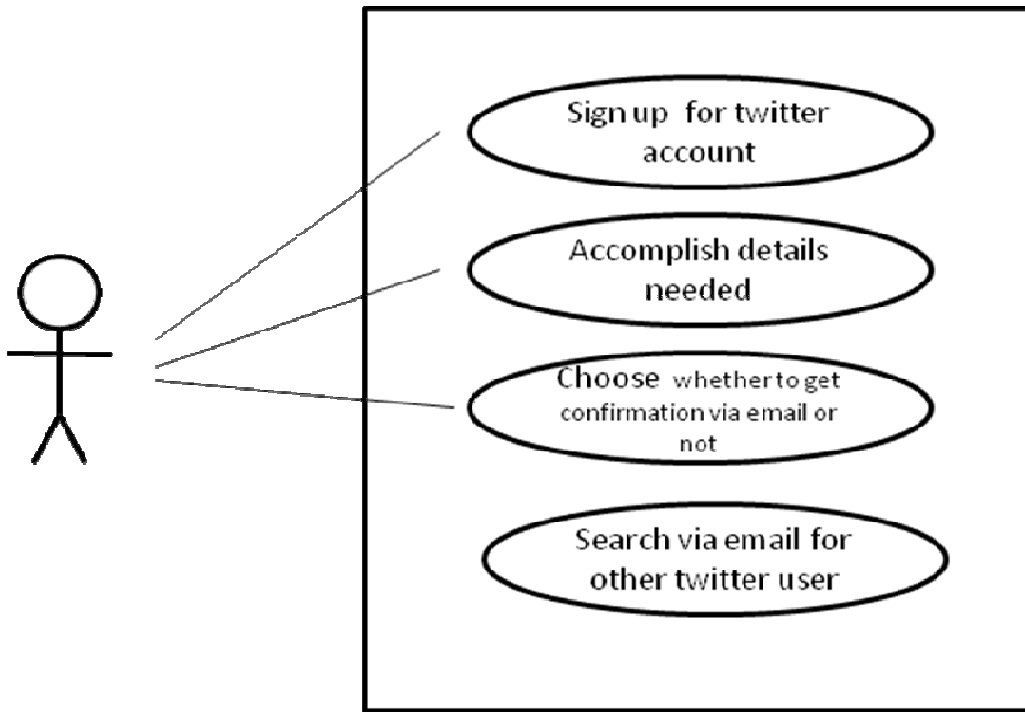   1. User cannot go to site.
            2. Use Case fails
        E2. Encountered Virus
            3. User connectivity was interrupted by a virus
            4. Use case fails

Post Conditions
1. User has friend feed account
2. User can now use friendfeed account
3. User can view profile
4. User can search friendfeed users
5. User can post to friendfeed.com
6. Users profile can now be viewed by other contacts

Identification Summary
    Title: Getting an account in twitter.com
    Summary: This use case shows the process overview on how to get a twitter account.
    Actors: User
    Creation Date: 31 July 2008 People-in-charge: Nina Tasha Reyes
    Version: 1.0
    Flow of Events
    Preconditions:
        1. The user must have an existing email account.
        2. The user must have internet access.
Main Success Scenario:
    1. User creates an account in www.twitter.com
    2. User accomplish details needed
    3. User inputs displayed configuration key
    4. User chooses whether to get updates via email or not.
    5. Search for other contacts via email contacts who also uses twitter.com
    Alternative Sequence
    A1. Temporary incorrect entry of details.
    From 2
    2. User can go edit information.
        A2. Temporary incorrect entry of configuration hey
        From 3
        4. User is given another chance to enter configuration key.

        Scenario goes back point 3

A3. User cannot see configuration key
From 3
5. User opts to hear configuration key instead.
Scenario goes back to point 3
A4.Twitter temporary expires for maintenance (temporary)
From 2
3. User goes back to website and sign up again
Error Sequences
    0. E1. Unable to access internet
    1. 1. User cannot go to site.
    2. 2. Use Case fails
    3. E2. Encountered Virus
    4. 3. User connectivity was interrupted by a virus
    5. 4. Use case fails

Post Conditions
- User has twitter account
- User can now use twitter account
- User can view profile
- Users profile can now be viewed by other contacts

Appendix I

Integrative Questions

Lotus- Mitch Kapor

1.   We did not know that Kapor was once a product manager for VisiCalc.

Ans. Mitch Kapor was a product manager at product software when he wrote VisiPlot and Visitrend.

2.   VisiCalc was also an assembly language but why was Lotus faster?

Ans. VisiCalc only used an 8-bit machine unlike Lotus they took the advantage of the 16 -bit architecture. Also they had more optimized code than VisiCalc.

3.   Why did Lotus sue other companies?

Ans. Kapor sued the other companies because some of them were copying their style.

4.   Lotus was called the "Killer App Killer". Why?

Ans. Lotus had larger spreadsheets and integrated charting, plotting and database.

Iris Associates and Groove Networks- Ray Ozzie

1.   Why did Ozzie created Iris Assoc. in 1984?

Ans. Instead of working as an employee Ozzie founded Iris Assoc. to develop the product for Lotus.

2.   Ozzie was working on PLATO notes, why did he transfer to Lotus notes?

Ans. Ozzie was first working on Plato notes but he did not have a capital for his business so Mitch Kapor and Jonathan Scahs decided to invest in Ozzie's idea that is why it became Lotus notes.

3.   How did Ozzie manage people's expectation? How did he hold his people together?

Ans. Ozzie had a belief that they will be able to change the world. He believed that what his employees were doing could have a dramatic impact to the world.

4.   One of the things that I learned from Ozzie is in a business. What was it?

Ans. your employees should have the will to believe in something that they are trying to accomplish.

PYRA labs- Evan Williams

1. Evan first worked in Intel and Hp. What was is first job?

Ans. Evan first worked in Intel and HP as a web developer but later on realized that it was better to start his own company.

2.   At first they called their site "Stuff" but later called their site "Blogger.com". Who invented the term?

Ans. Peter Merholz coined the term "Blog" .

Pareto Analysis

What is it?

- The Pareto principle is only tangentially related to Pareto efficiency, which was also introduced by the same economist, Vilfredo Pareto. Pareto developed both concepts in the context of the distribution of income and wealth among the population.
- It is a statistical technique in decision making that is used for the selection of a limited number of tasks that produce significant overall effect.
- It uses the Pareto Principle (also know as the 80/20 rule) the idea that by doing 20% of the work you can generate 80% of the benefit of doing the whole job.
- Why implement this?
- Pareto Charts can be helpful, to identify which problem should be studied, later to narrow down which causes of the problem to address first.
- A Pareto Chart is a good tool to use when the process you are investigating produces data that are broken down into categories and you can count the number of times each category occurs.
- Pareto Charts convey information in a way that enables you to see clearly the choices that should be made, they can be used to set priorities for many practical applications in your command.

Problem: **20% of manual encoding of buyers account info and sales report   causes 80% disorganization of buyer's account and project sales**

Causes:

- Disorganized array of buyer's data
- Inaccurate computation of buyers account
- Inaccurate revenue recognition
- Inaccurate billing statement
- Inaccurate monitoring of agent's account

Recommendations:

Proposed system to resolve problem:

Buyer's Account and Project Monitoring System

 This system aims to:

- Organized and comprehensive analysis of Sta. Rosa Homes Project buyer's record.
- Accurate encoding of buyer's detailed account information

- Accurate computation of payments
- Generate reports such as buyer's information sheet, quotation sheet, billing statement, monthly amortization

- Properly monitor project sales
- Reduce workload
- Reduce amount of handling
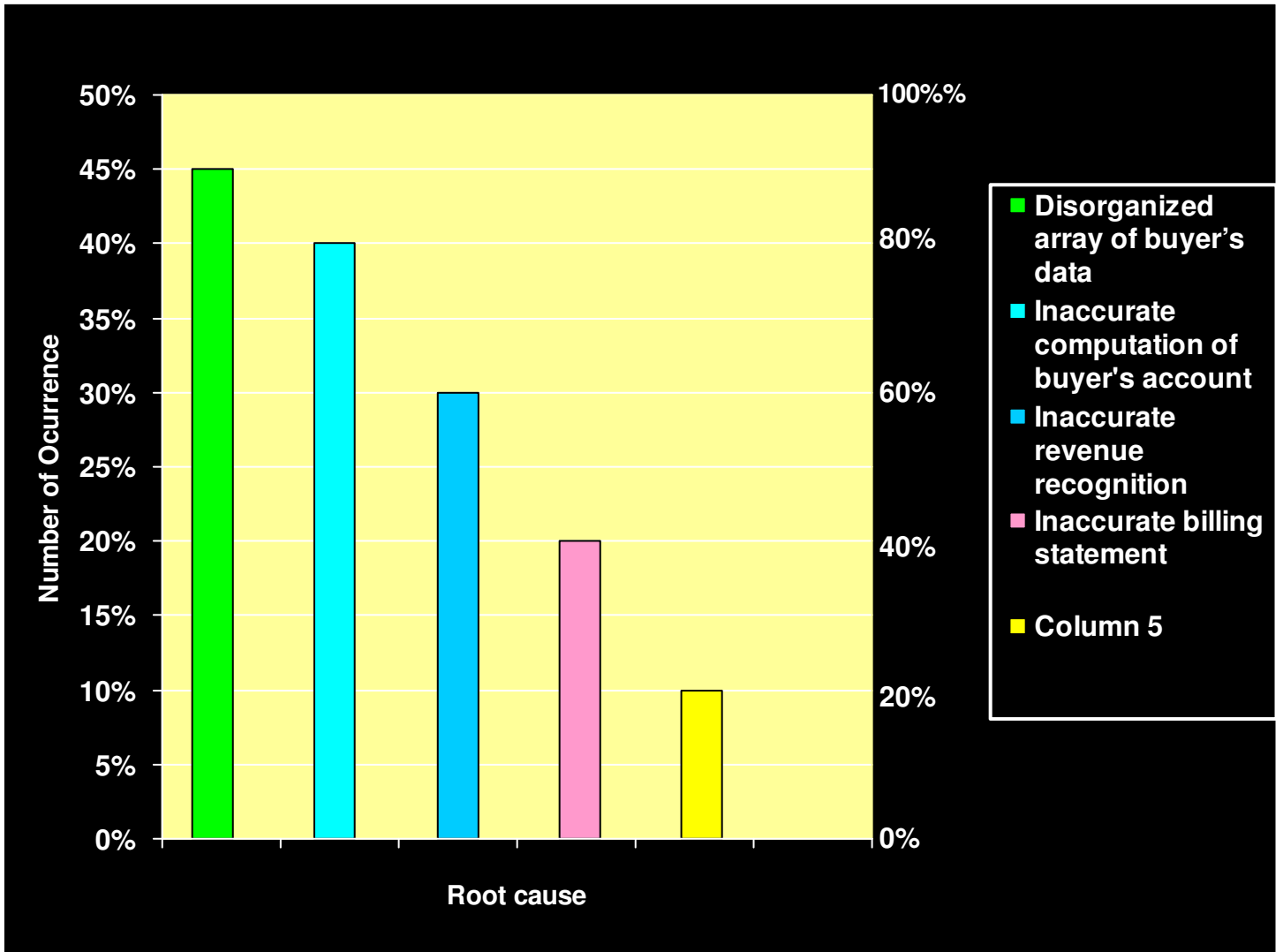
Appendix II

Appendix III

Resources:

Amazon Resources

- http://www.amazon.com/Modern-Systems-Analysis-Design-5th/dp/0132240769/ref=sr_1_2?ie=UTF8&s=books&qid=1219647953&sr=1-2
- http://www.amazon.com/Shelly-Cashman-Systems-Analysis-Design/dp/B000LZMMTQ/ref=sr_1_2?ie=UTF8&s=books&qid=1219648087&sr=1-2
- http://www.amazon.com/Systems-Analysis-Design-Kenneth-Kendall/dp/0131454552

Other Sources

- http://www.foundersatwork.com/
- http://www.wikipedia.org/
- http://www.alexa.com/

Proof of Use Case: