

**SYSTEM ANALYSIS**

**AND**

**DESIGN**

**READER**



**BY**

**RUTHER FORD B. EVASCO**



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# Book Review



Book: System Analysis and Design

Author: Julia A. Kendall and Edward J. Kendall

Reference: QA 76.9 S88 K45 2002

Chapter 3:

Determining Feasibility and Managing Analysis and Design Activities

Quote:

NO QUOTE...

Summary:

Their project was to improve their business and organize there some systems. Their systems projects are initiated by many different sources for many reasons. The five major project fundamental that the system analyst must handle are project initiation, determining project feasibility, activity planning and control, project scheduling and managing system analysis team members.



# Case Study



### **“37 Signals”**

37 Signals is a private web application company. In '99 their company was firm or stable and they found their CEO at that time too. Like Jason Fried, Carlos Segura, and Ernest Kim as a web designer of their company. They are focusing on usability, simplicity, and clarity in design and writing. 37 Signals also produces a blog, called Signal versus Noise. 37 signals have been primarily a developer and provider of business and personal productivity web application. Their first product or application was Base Camp. Base Camp is a product name that made their company stable Base Camp is an online tool handling project management. Then they followed the Base Camp with other application like Ta-Da List, Backpack, Writeboard, Campfire and Highrise. David Heinemeier Hanson helped in developing this company from a manual consulting company into a product company. The 37 signals were very responsible for launching a web application. They use Ruby on Rails a software framework application which uses its own application. The other application or products are made or was startup of Hansson. He was inspired to other companies that having a startup and developer in their company.

37 Signals or their other application problem is who will lead or how will they lead. So that was their problems. We know that leading in a company is very important or it is a serious problem if you can't lead. So in Base Camp software they have a big problem in using a blog system because they can't distribute significant information to online world.



**“Marimba”**

Arthur van Hoff was a former worker with Java development and Sun Microsystems. In 1996 he left Java development and Sun Microsystems, and found Marimba. Marimba was a software distribution company. Marimba received lots of attention in press and other people and after the venture capitalists got too. So the Marimba gets grow with 4 person starting up, then they acquired by BMC Software in 2004. In their case, they don't know how they will start. So the first idea that comes in their mind is to find a place or a office place which is hard at that time. But after looking, they finally found an office above a flower shop at California Avenue in Palo Alto. They bought heavy metal desks for \$25 apiece. They weighted a million pounds but they can carry it upstairs. Before putting up a company, they put in \$25,000 each. They spent about \$1,400 to furnish the entire office, including fax machine, equipments and printer. They also used cell phones first, there was no internet access for the first couple of weeks, they only used white board. First thing that they did was the User Interface builder. Java was an interesting model, but they didn't have any tools to develop it. They were acquired by Netscape. They turned into the Internet Foundation Class. It was ironic because eventually turned into the JFC, or Swing, the java tool kit. They focused on software distribution, because the system that helped build Sun was not scaling very well for real applications. They came up with the idea for subscription-based software, where rather than buying software, you subscribe to it and get updates automatically. While they were doing the software distribution, a thing called Point Cash come out. Bad luck also came to them due to the press. An article made by Fortune magazine. Then Arthur van Hoff said that if you are newbie in startup, the first advice is not the best, you should go with the experience guy and go with what you feel. And the second idea was the best idea than the first idea. And if you create an environment that you like so that people or worker are happy and feel that they were valued.



**“Apple Computer”**

Apple Computer was founded by Steve Jobs and Cofounder Steve Wozniak. Apple started with Steve Wozniak who dream to have a computer someday and at the first meeting of the Homebrew Computer Club. In his High school days, he believes he could already build a design of an apple computer. And for Steve Wozniak he said any person can set off the personal computer resolution. And he said when you are doing a start up: you do it with fewer parts so that everything will be clean and orderly so that you can understand some of bugs and fewer bugs will stuck. Steve Wozniak designed the first arcade game called “Pong” but before founding that Steve Wozniak was working at Hewlett-Packard designing scientific calculators. And also he is involved in the creation of Cartravision. Steve Wozniak met Steve Jobs his Cofounder in that company. Steve Jobs is a part-time worker. They started Apple when their share their idea then they think that they can build one part of computer at that time. Their first idea was a microprocessor, then a RAM or Random-access memory. But they need bytes of 4k to build computer language to run the program. Then they start programming and they start experimenting what language they will use to run the program. And they know that a computer or software always needs a number or variables. Then after that, there next idea was to build a computer that was build hardware. Example of hardware is Modem or Chips of computer. After they complete their plans and their parts that needed. Steve Wozniak got an order for \$50,000.100 built computer boards for \$500 each. And it was high money for a new and because it was twice his annual salary at Hewlett-Packard. After that they think or thought that they were a big time because they already have customers who are interested. The other day they met Mike Markkula one of very interested in technology. He share or invested \$250,000.00 for Steve Jobs and Steve Wozniak to make a 1000 computers. Starting that time, their lifestyle totally changed, because they get richer and rich than ever before due to their best-selling product. It started 1980-83; Apple was the largest-selling in the world. But all I know about business is not all the time you are in the top or best company. And I know Apple is one of competitor of IBM and Microsoft. For me it was a very interesting to do and I’m so inspired to do that startup too. And it was nice to do that at early ages. And maybe some days or years if I have a skill or I have teammates to do like Steve Jobs and Steve Wozniak I can be a millionaire too or billionaire because of many people using high technology or new gadgets. And their products are so in demand nowadays. Also I know Apple is very popular now because of very nice and high-tech. One of Apple newly gadgets is I-phone.





**“Viaweb”**

Cofounder Paul Graham and his friend Robert Morris discovered ViaWeb in 1995. They are planning to build software which you can stores through online. Viaweb was the first companies to deliver on the Web. In year 1998 Viaweb was very popular as e-commerce software and this software makes small business to big companies by using Viaweb software. Before Viaweb was known his partner Robert Morris has been doing startup called Artix. According to Paul Graham the Viaweb and Artix are similar software. Only there difference is in Artix people don't or people couldn't generate site for galleries but in Viaweb using web or a net they can shop easily by using shopping cart from generating online store. It was named Artix, it is art gallery and people don't want to use online. So they spent a longtime convincing the gallery buy they did not agree with it. And they decided to think a new idea that people would love or people would like. Paul Graham and Robert Morris did not use money doing Viaweb. At that time they have no idea how to make software and it just like making a windows software. After all it was very successful and all people at that time invest in their company.

As far as I remember Paul Graham said if you are going to spend money, spend little as you can. Startup is what people want and like us we are just user so we can suggest to them what we want to see in their software.



**"Bloglines"**

Bloglines is a web based news aggregator for reading syndicated feeds using the RSS and Atom formats. Mark Fletcher, former CEO of ONE list, founded the site in 2003 and sold it in February 2005 to Ask.com He was a senior software engineer in Sun Microsystems when he started in ONE list. His name is Mark Fletcher. ONE list was renamed eGroups of yahoo in 1997. Bloglines offers an application programming interface that can be used to write software that can read feeds, search its database of feed entries, and ping the service when a blog has been updated. Bloglines grew fast and became popular at that time. And million people or users invested to them. It becomes eGroups when they sell it in Yahoo. He sell it because he got tired doing startups and decided to leave to have fun in other things.

For Mark Fletcher it is very easy to do and it is very understandable but in my opinion the best thing for your company is just release early so that you will be able to know what your users want.



**“del.i.cio.us”**

Del.i.cio.us a bookmarking site started in 2003 by Joshua Schachter. Joshua Schachter has a website before it was called Memepool, it was a blog before it come out. It become popular because people telling about it. It succeeds because it was not a venture for him. He’s just built a product. The companies were the first to do tagging. Joshua Schachter decided to leave Morgan Stanley to make it full time for del.i.cio.us. He hired 8 employees. Tagging was the one that gave them problem it was technical problem. They built in Perl, MySQL Apache. It was the technology that inspires them. It was the standard mechanism to them. He learned from many people like Albert, Fred Wilson of union square and a great deal from Morgan folks. They push Schachter far so he got what he had. It’s a great responsibility doing start up. It’s not that easy, you have to work hard for it and if you fail just try again until you succeed. It must be creative and open in others ideas. One thing more experience is one of the best things that can help you to apply it in doing such things.



**“Excite”**

Excite is a search engine originally called Architext started in 1993 with five students in Stanford. Excited was well known in 1994 when they launched web search engine into market with their competitors. When they found that their engine becomes popular they expanded their service with high-speed internet service and have a home page called Excite@Home. Many people question their work because there are too young to build or to manage a big company or a huge company. Joe Kraus always feel like somebody is going to kill them for their bad search engine or look of security of their program or web. Excite is too young and it is hard to sure that everything is under control. But some companies or people using their search engine say that how could this 5 young student manage this huge company and how could be a student or friend manage a company that is worldwide. And they have no experience or background so how could they sure that it will be effective in the feature that some people say. So for me even if you or your Cofounder can build a search engine or a startup it is not only that and it is not easy to handle it. Because every day or you will always think that your work is under control or it must be safe when some people using it, It is not just advertise or publish it, you should familiarize with the company and be practical in your team or others coworker. Not only they are your friend or best friend or relatives you will put them in a high position then manage your company is in their hands so you need to put the right one and have an experience or background with their field. And people around your company should have the skill to talk with other companies that can help you, so that your company gets more sponsors or more advertisement to explore your startup.



**“Software Arts”**

Software Arts was a software company founded by Dan Bricklin and Bob Frankston in 1979 to develop VisiCalc it was the first electronic spread sheet which was published by a separate company, Personal Software Inc. Software Arts also developed TK/Solver it is a numeric equation solving system originally developed by Milos Konopasek. And this Software Arts was bought by Lotus in 1985. Software Arts was a “killer application” and it was as fast as rise to influence other company because if they can use that their files or some papers will be organized and they can work fast. Before Dan Bricklin start he work on Digital Equipment Corp. which help him to test or how to process a typesetting.



**“Groove Networks”**

Groove Networks was a software company based in Beverly, Massachusetts. Founded by Ray Ozzie, the creator of IBM’s Lotus Notes application, the privately held company specialized in productivity software that allows multiple users to work collaboratively on computer files simultaneously. Ray Ozzie worked on PLATO notes, and he led the development of Lotus Symphony which is the founder are Mitch Kapor and Jonathan Sachs who decided to invest some idea to Ozzie, which would become Lotus Notes instead of working as an employee. Ray Ozzie founded Iris Associates in 1984 to develop the product of Kapor and Sachs which is Lotus 1, 2, 3, spreadsheets. In startup you’re mission is to stick what fields you can do and only people who are really willing to do their jobs and believe in their selves that they can do that or do this project. Not only you are graduated in that particular skill you can work that at least you can show your talent or your skill (hardcore) in that situation. According to Ray Ozzie do not hire anybody or somebody there you trust, give your trust only who are well train, have good experience, have a good background in handling a big or huge company and the one you really know before you hire them. Their problem is they think twice, and they lack of knowledge is the algorithms they take 3 to 4 months to build that and they try to do in C++ or even Java. So for me if you are planning to do some startup set a plan organize clearly and full the fields that you think you needed so that no matter what happen in that product or startup somebody can fix it already. And you don’t get loose of money in times that your products have a problem. Also if you will choose a place or find a place to build your startup company you should know where is the marketing place designated. Because if you place somewhere out of technology community it will shut down early as early you publish. And before you publish make sure that all kinds of technical problems or some errors will experience is you can fix it.



**“Lotus Software”**

Lotus was founded in 1982 by partners Mitch Kapor and Jonathan Sachs with backing from Ben Rosen. Lotus first product was presentation software for the Apple II known as Lotus Executive Briefing System. Kapor founded Lotus after leaving his post as head of development at VisiCorp (the makers of the VisiCalc spreadsheet or the “Killer App”) and selling all his rights to the VisiPlot and VisiTrend products to VisiCorp. And after Kapor left VisiCorp, he and Sachs produced an integrated spreadsheet and graphics program. Even though IBM and VisiCorp had a collaboration agreement whereby VisiCalc was being shipped simultaneously with the PC, Lotus had a clearly superior product. Lotus released Lotus 1-2-3 in January 1983. The name referred to the three ways the product could be used, as a spreadsheet, graphics package, and database manager. In fact, the latter two functions were less often use nonetheless 1-2-3 was the most powerful spreadsheet program available. Sales were huge, turning Lotus into the largest independent software vendor in the world almost overnight. The business plan had called for \$1 million in sales in the first year, but actual results were \$54 million. For me not all “geek” people can only do a startup. Lotus were mostly got the biggest level in company but their wrong was all their money they all spent in nothing and spent in that software so they ran out of money. And other problems in their project are they have no business background, mathematics background or accounting and skills in managing a company or a big business.



**"Blogger.com"**

Blogger.com is a blog publishing system all over the world and it was created by Pyra Labs. Pyra Labs is to build a web based project management tool. William plan is to develop or to improve the Blogger to manage his personal weblog and quickly became an important mechanism for sharing ideas at Pyra Labs. When Evan Williams launched in public his Blogger.com it grows rapidly and all workers in Pyra Labs decided to full-time them in company. I'm so proud to Evan Williams because he's the man who never quit. He is brave to face anything, every single part is important to him even it is only little piece he made it big and he always learned from his mistakes. Evan Williams knew that they didn't really have money for it, and even though they just self-funded it they still continued. They obviously worked very hard in making their ideas a reality and eventually, when they were expanding, they came across the idea of an internal blog they first called "stuff" that they posted on the web. It is fun to use that blogger because everything we want or they want is not possible because "stuff" or the "blogger.com" is nothing possible and it is free to everyone. You can use it 24/7 and you can put everything you want to post about you or others. The only problem in their product was they don't get any money to that web and they don't pay revenue which is bad. While, they were funded, but as time went on, when 2001 came, everybody left Williams. He was literally the only person left in keeping Blogger. He always said that even though they weren't making money before, what's important is that Blogger was a hit. Another reason why Meg and the others left was due to their differences in opinion.





**“Web TV”**

WebTV (now MSN TV) is the name of both a thin client which uses a television for display rather than a computer monitor and the online service that supports it. The product and service were developed by WebTV Networks, Inc., a company purchased by Microsoft Corporation and absorbed into MSN (the Microsoft Network). While most thin clients developed in the mid-1990s were positioned as diskless workstations for corporate intranets, WebTV was positioned as a consumer device for web access. The WebTV product is an adapter that allows a television set to be connected to the internet, primarily for web browsing and email. The setup includes a web browser, cord or wireless (i.e. Bluetooth or IRDA) keyboard and connection to the Internet (i.e. using modem, ADSL, cable, PLC). While WebTV does not allow as much functionality as a computer-based browser, it is a low-cost alternative to a traditional computer connection to the Internet. It should be noted that the term webTV is also used concerning TV transmissions over the Internet, usually by streaming. For Steve Perlman is that he focus on communicating with other people trust if you don't have trust in yourself –works and co-workers. And you should think positive whatever you encounter to your programs never think it will not work because if you launched it and you are not satisfy with your feelings maybe it will happen or you don't know what . So always think that your program is 100% all things in your programs are well done and all things there are the things that you know it.



**“Yahoo”**

After reading Tim Brady story about Yahoo, I'm so amazed with him and how they talked with the undergraduate. I can't imagine that electrical engineering can work with small companies to big companies. Tim Brady met Jerry in a freshmen dorm and they share their goals and ideas. Then Jerry and Dave work with the Web and show to Tim Brady what they have. After Tim saw it, he said to Jerry just keep it up put what the people want to see in the Internet. For Jerry and Dave they are both working with their thesis, they left their school for a startup, so they balanced their time in putting add on or buttons in Internet and doing their thesis. So it is no time to waste for them and they are fully hour working. And they put their category they want to put so that everybody has the same like with Jerry and Dave will interest with Yahoo. Many company recognized Yahoo, like Microsoft, AOL, and LA Times. First they don't accept the offer of the 3 companies and at the time they are not known well because it was end of '94 they start only at Oct. '94 so they are not fully sure and not prefer to launched. So in that time and after several months they are so busy because they want to improve all inside the Yahoo because they also know that they have many competitors outside them. But they don't keep in their minds that they will quit in times that they fall or they last on other companies. They never put in their mind that they will quit. After they knew that their works is cool and good and their thesis is done, they plan to send an email to their classmate or publish to email that add their work so that Yahoo will be known all over the world. And they use email because they don't have any money to advertize that because they are undergraduate and they don't have any salary can get. In year '95 their Yahoo increased 10 times in just little months and then some of people outside recognized that there is doing a huge favor to other work. Like when you need to research about something then you can use Yahoo search bar. They hire Sequoia to be their VC, and Sequoia gives \$1 million for the company. Even Sequoia knows that yahoo is new and so young. Then they bought Tim Koogle to be their COE after 6 months of finding. After several months they were shock with Bill Gates memos, it said that Yahoo was Bill Gates favorite site and it was "Cool, Cool, Cool", and their first reaction was are we only just cool? They think that Microsoft have something hiding with them because they know Microsoft is so powerful and some time Microsoft can beat the Yahoo. So they keep improving their works. Then after in '97 they first launched Yahoo and it was very well known after they saw the lots of category in web even some of connection is slow because of large graphic that Yahoo put in their Homepage, still many people using. And one great in Yahoo is when you can't find in their web browser they will suggest you or link you in new startup called "Google" which is new too. After several years and months Yahoo added to NASDAQ 100 and they are very proud. And then all Jerry and Dave friends are proud of them and they are all in one huge company.



**“ArsDigita”**

Philip Greenspun cofounded ArsDigita in aiding consulting projects for research and projects for all users and clients. Greenspun didn't have a clue on what was going to be the future of his recent software of managing a photography site. The startup team was flexible. ArsDigita started with an uncomfortable setting, with incompatible infrastructures used only as experiment to tell that their startup system is working and would increase their productivity. In this strategic manner, more companies have carefully studied and spontaneously evaluated their program, causing clients to ask for more features, even ask for customizations and the like. In addition to their marvelous and outright scheme in entrepreneurship, they had become a more passionate and extensive on their company, having one of the important stakeholders, the employees to have continually own some supremacy in office. In this continuum, the company has matured in a state that the program has simultaneously grown in its share of impressive features and customized showcases.

ArsDigita startup started with an uncomfortable setting, with incompatible infrastructures used only as experiment to tell that their startup system is working and would increase their productivity They thought their efforts were a loss because of the first draft's incompetence and in-effectively, but in time, they had made corrections that made humongous improvements for the whole firm.



**"Research in Motion"**

Mike Lazaridis founded Research in Motion (RIM). RIM was the first companies who discover or to appreciate the importance of wireless networking in the world. RIM went public at 1997 in Canada. Even Mike Lazaridis is undergraduate and he's so young and for young like them is a tricky thing to do. For me wireless networking is very big thing in our daily life, because without wireless networking we can't use some device that we use every single day. So even you are in "Upstairs (up level) or Downstairs (low level) still you have skill in a company or a skill in programming. But for students of course it wasn't big thing if they don't the system at that early time. Like '70s computer is not well known unlike now everyone is familiar with computer or other high technology. Then Mike and his friend Doug start playing computer and learn some about computer, then a teacher gave them a project which is according to the textbook, it is how to build a gate in internet, how to build recent memory circuits, how to build registers and how to wire them all together and sequence them with a clock. They know it was as different to their background as that time. In their time the "email" is not that well known everyone there is using punch card thing. And according to their students they were all upset because they worked really hard, then now they can't get a job, they can believe that. And in early '80s the University of Waterloo had a massive computer system and it was importantly the centerpiece vision of the founders. And their computer network were been research project called Watlan or Waterloo Local Area Network Project. Mike Lazaridis started in his fourth year I RIM. And while they were doing there project they are using Java language and working with STOIC and it was a interpretative language. And RIM has a project that cost \$600,000 contact with General Motors.



**"Gmail"**

Paul Buchheit is an American computer programmer and entrepreneur. He was the creator and lead developer of Gmail, which anticipated many aspects of Web 2.0, including the idea of Ajax, long before that term was coined. He developed the original prototype of Google AdSense as part of his work on Gmail. He also suggested the company's now-famous motto "Don't be evil" in a 2001 meeting on company values. Buchheit grew up in Rochester, New York and went to college at Case Western Reserve University in Cleveland, Ohio. He worked at Intel and later became employee #23 at Google. According to Buchheit first it was a side project only then when he finishes that project, he shows it in his working company which is Google. And after some employee saw, it becomes commissioned by the Google Company. And I started to do the Gmail and I use the Groups code to work in Gmail. I created Gmail in just 1 day just using Google Groups code. Gmail is web based email but it only searched Buchheit email. For Buchheit, even it just a searched email it is very important to us and that is his first step to create a search email then, if his success then he will improve and put some feature that people wants too. And built it as free email just like texting it frees for all and put AdSense like in Google homepage. According to Buchheit Gmail was controversial internally so people are uncomfortable with things that are new but they are not familiar with that so they keep suggesting some features that Buchheit can put it. So for a founder/ Cofounder of an startup you should always fix it early when some of the customers problem because without them your projects or your work will not spread.



**“TiVo”**

TiVo device serves a function similar to a videocassette recorder, in that both allow a television viewer to record programming for viewing at a later time. Unlike a VCR, this uses removable magnetic tape cartridges, a TiVo device stores television programs onto non-removable hard disk storage. A feature that distinguishes TiVo devices from similar digital video recorders is the sophisticated software written by TiVo Inc. that automatically records programs not only those the user specifically requests, but also other material the user is likely to be allows the viewer to pause live television, and rewind and replay up to a half hour of recently viewed television. Finally, more recent TiVo devices can be connected to a computer local area network, which allows the TiVo device to download information and even video programs and movies from the Internet. TiVo lauched in 1999 by Mike Ramsay and Jim Barton but they founded this TiVo in 1997. They didn't launch early because they have conflict in existing information and information about the other programs have. But the sad thing is Mike Ramsay stepped down as CEO in 2003 but he still remained as chairman. So first thing I learned is to be competitive even you know that you are beginner. And be confident what you have because it will help you to accomplish your goals.



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### **“Trip Advisor”**

TripAdvisor is a free travel guide and research website that offers reviews and information to help plan a vacation. Stephen Kaufer is the founder of this Trip Advisor. This Trip Advisor was came from his wife, because they are not satisfied for their travel agency information about where they’re going to stay. So his wife suggest or give him idea that if Stephen can build a better search engine to find what they are looking for.

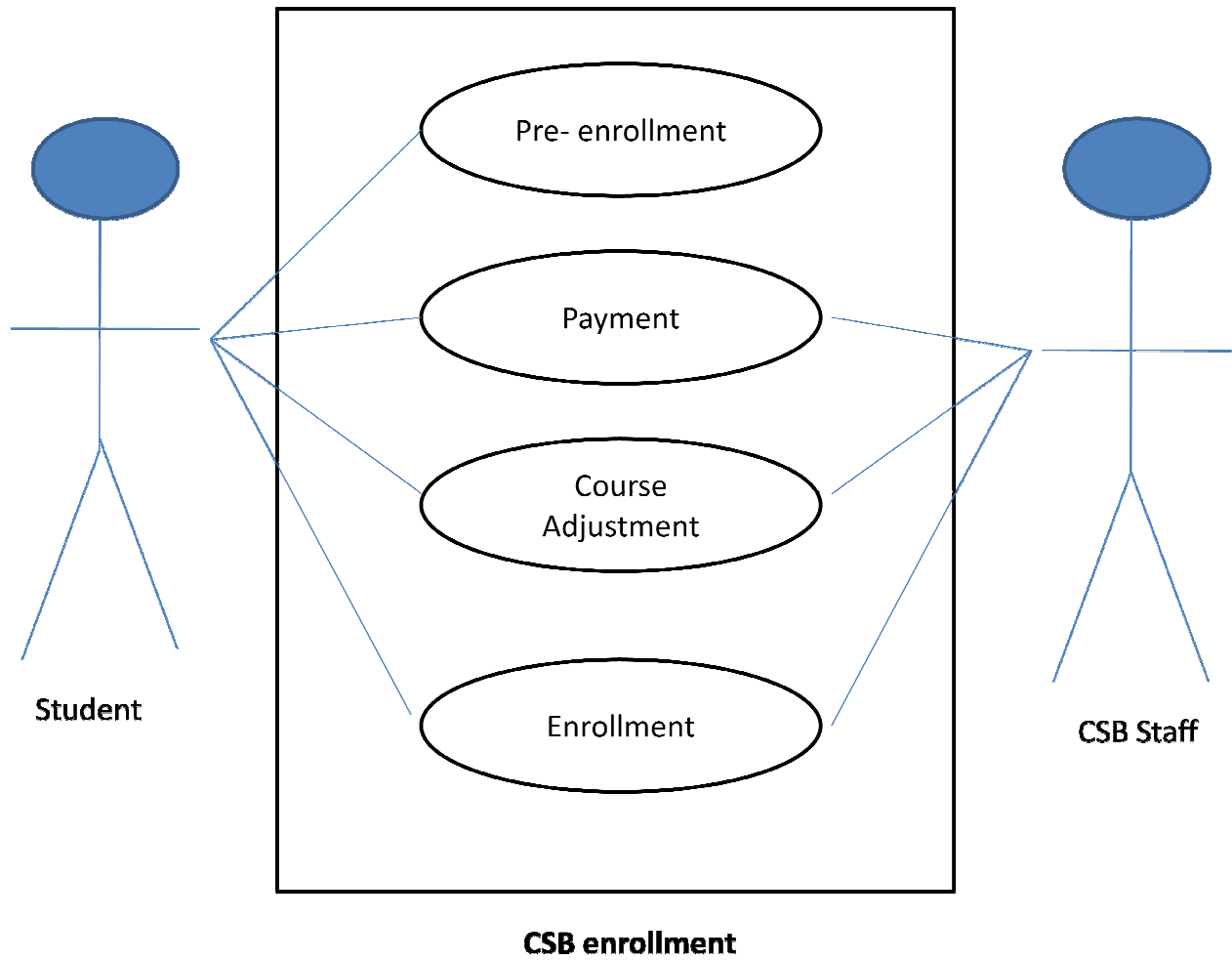
So Stephen Kaufer made the Trip Advisor that can help them find or to have a perfect trip for them. And compare to other system or search engine this Trip Advisor can give you a friendly advices not bias advices and you can see some forum about how to travel to that place.



# Use Case and Narrative







## Use Case Narrative

### Identification Summary

Title: CSB enrolment

Summary: This use case shows is how the enrolment works.

Actors: Students, registrar, accounting staff and academic adviser.

Creation date: June 5, 2008

Date of update:

Version: 1.0

Person in charge: Ruther Ford Evasco



**Flow of events**

## Preconditions:

1. Enroll on the given schedule.
2. Students must have money for enrolment.
3. A term must be finished.

## Main Success Scenario

1. Students enlist his/her chosen subjects.
2. Wait for registrar to confirm students chosen subjects.
3. Get EAF
4. Pay to the accounting office

## Alternate Sequences

A1: Failing grade

A1.1: Student needs to adjust

A2: Late enrolment

A2.1: Student needs to pay surcharge.

## Error Sequences

E1: Bouncing check

E1.1: Student will have a penalty due to bouncing check

## Post Conditions

1. Student will be cleared
2. Student is officially enrolled in the coming term.

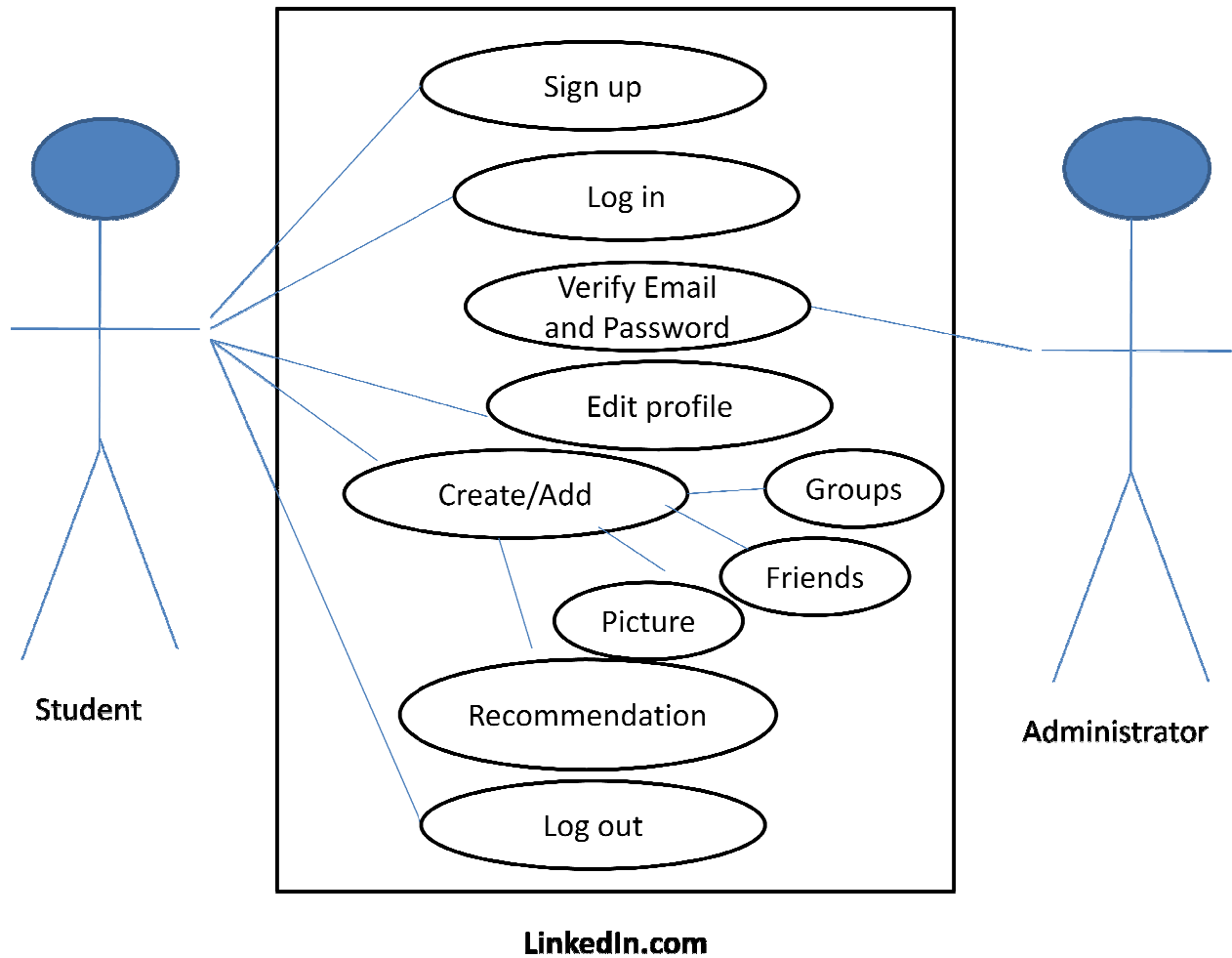
**UI (User Interface) Requirements:**

- Students can enlist subjects (pre-enroll) in their computers at home or at school.

**Non-Functional Requirements:**

1. Response time: The students are given schedule when to do their enrolment.
2. Availability: The accounting office and the registrar open at 8 am and ends at 4 pm.
3. Integrity: The office is guarded by security forces
4. Confidentiality: The registrar sends a letter regarding his/her status at DLS-CSB





**Use Case Narrative**

Identification Summary

Title: LinkedIn.com

Summary: This use case shows how to get an account or to access LinkedIn.com

Actors: User, Admin

Creation date: June 25, 2008

Date of update:

Version: 1.0

Person in charge: Ruther Ford Evasco

## **Flow of events**

Preconditions:

1. There should be an internet access
2. User has an account to LinkedIn.com.

### Main Success Scenario

1. User access the LinkedIn website
2. User enters his/her username and password
3. Admin confirms his/her username and password
4. When confirmed, user enters the site

### Alternate Sequences

A1: Invalid username and password

A1.1: User cannot go to his home page

### Error Sequences

E1: System failure

E1.1: User cannot access his/her account because system is down

### Post Condition

1. User validates his/her account
2. User gets new information

### ***UI (User Interface)***

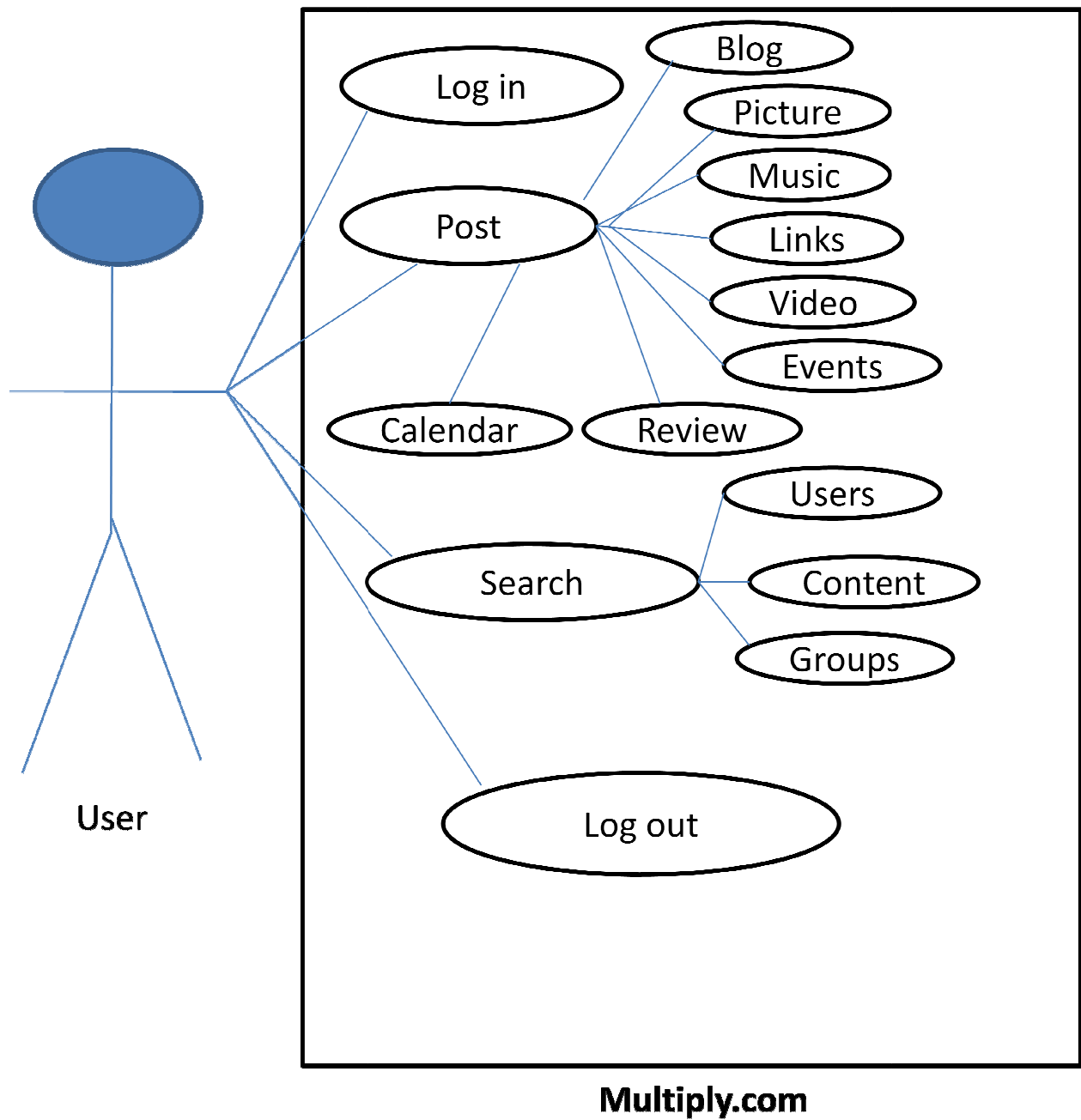
- User home page



**Non-Functional Requirements:**

Response time: Admin responds immediately once the user clicks on the mouse

Availability: Website or home page is available once there is an internet access



## Use Case Narrative

### Identification Summary

Title: Multiply.com

Summary: This use case show how multiply works.

Actor: User

Creation date: July 15, 2008

Version 1.0

Person in charge: Ruther Ford Evasco

### Preconditions:

- User must have internet connection
- Use must be logged in

### Main Success Scenario:

1. User logs-in the site
2. Multiply verifies the username and password

### Alternative Sequences

A1: Edit post

1. User edit what he/she posted

### Error Sequences

E1: Website Maintenance

1. User repeats the process

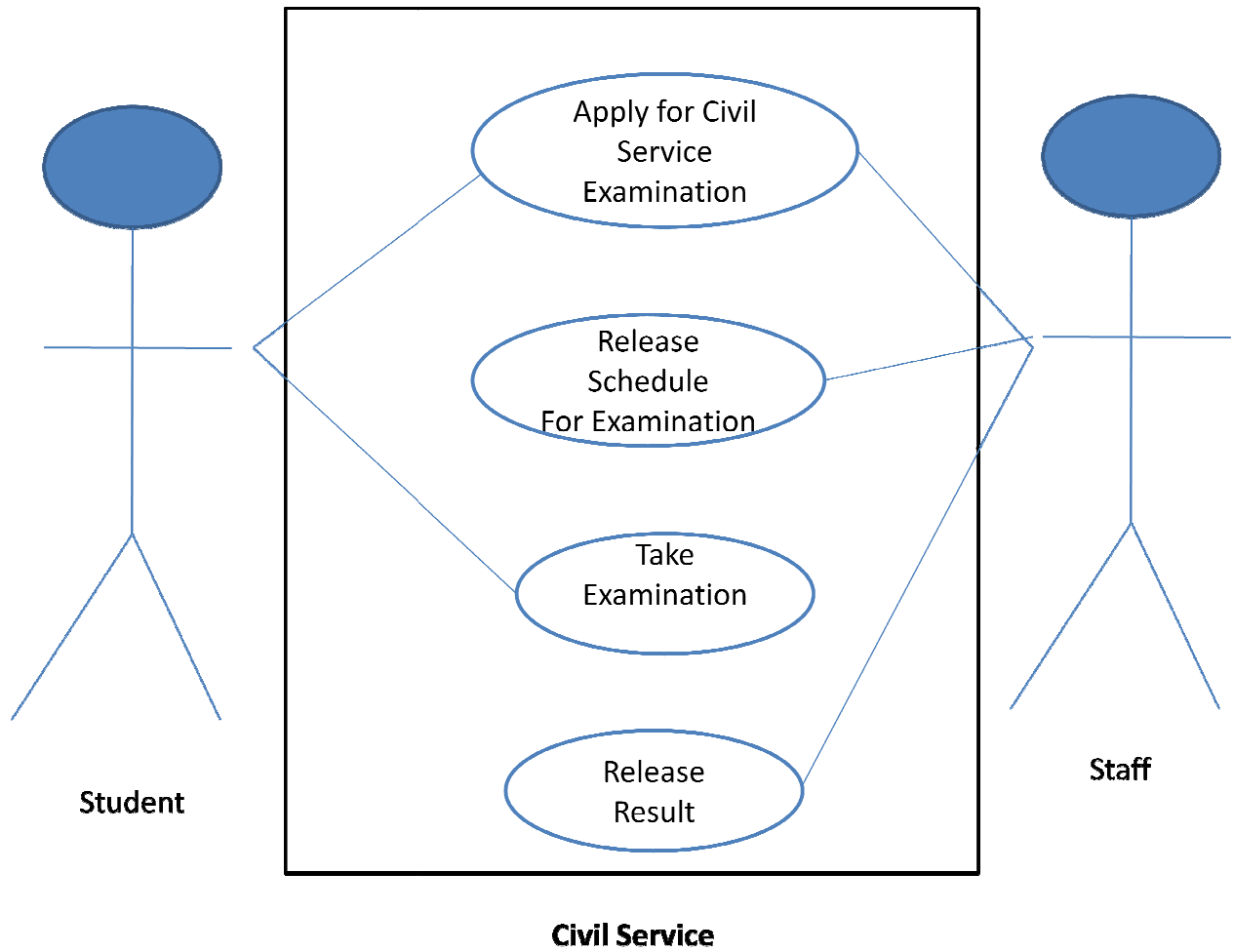
### Post conditions:

1. User page has upload photo, video, calendar, etc.
2. User find what he/she searched
3. User already in a group

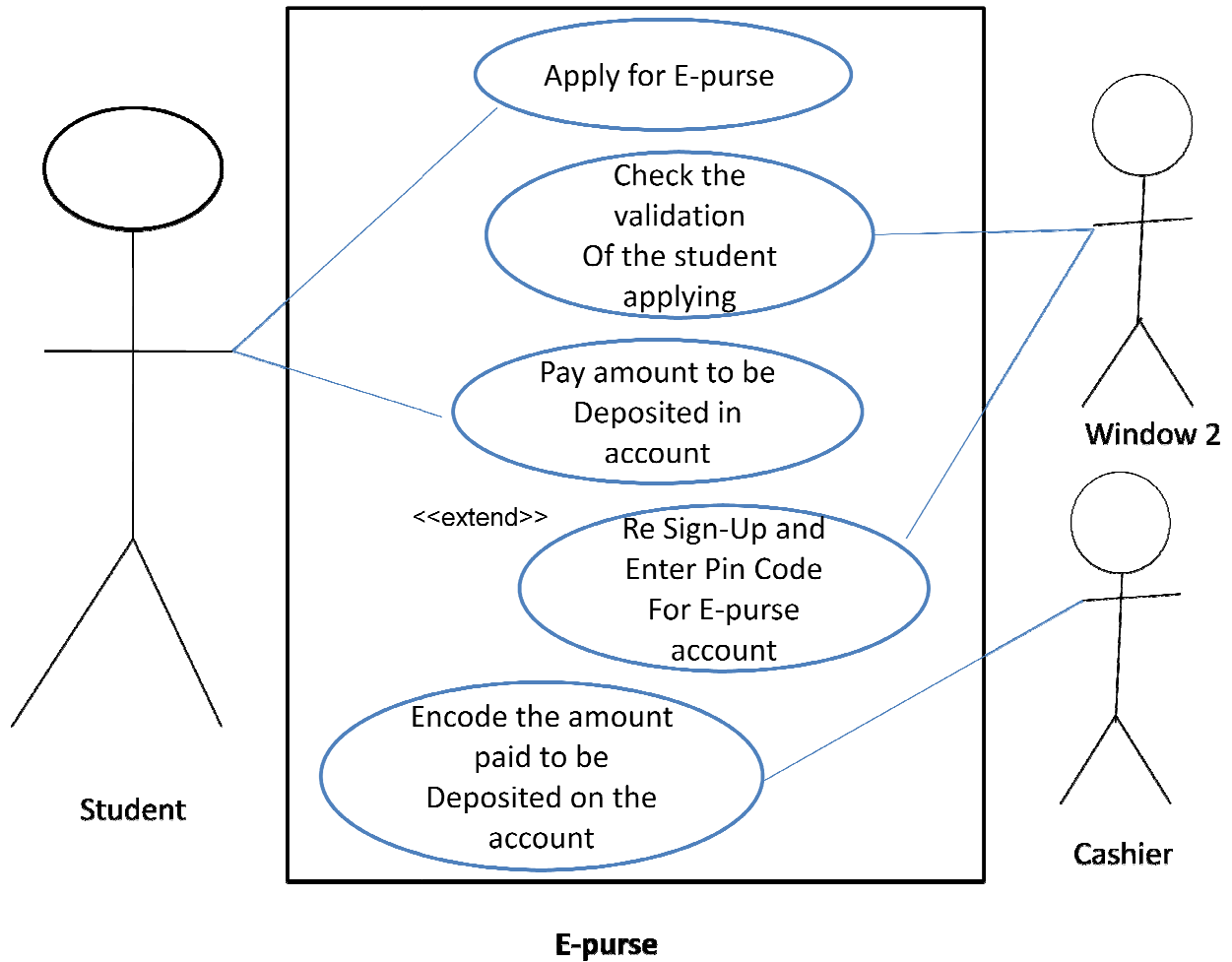
### Non-Functional Requirements:

1. Availability: The availability of the server or site.  
**Confidentiality: The personal message or password of your account.**









Identification Summary:

Title: E-purse

Summary: This use case is about hot to process an E-purse.

Actors: Student, Window 2, Cashier

Creation Date: June 18, 2008

Version: 1.0

Date of Update:

Person in Charge: Ruther Ford Evasco

## Flow of Events:

### Preconditions:

- Student must be enrolled
- Student must enlist
- Student must get their EAF from the Registrar
- Student must be able to pay to the Accounting Office

### Main Success Scenario

- Student paid for his/her tuition fee in the Accounting Office

### Error Sequences:

- Student ID is invalid.

### Post Conditions:

- The school earns money
- The student loses money
- Students lose their ID.

## User Interface Requirements

- Accounting System

## Non-functional Requirements

- Maximum processing time of 8 minutes
- Confidentiality – Putting a 6-digit pin code for E-purse account



# SAD Paper



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

TITLE:

**“An Analysis on the Research, Learning, and Training Materials Inventory of TeaM Energy’s Strategic Planning Department”**

### **I. CHAPTER 1 :: ORGANIZING FOR IMPROVEMENT**

#### **❖ COMPANY BACKGROUND**



**TeaM Energy Corporation, CTC Building 2232 Roxas Boulevard, Pasay City 1300**

“ We are TeaM Energy, the Nation’s growth partner.

We generate and supply reliable and affordable energy to uplift lives and promote the sustainable development of the country while creating value for our stakeholders.

We are committed and empowered to achieve cost effective, safe and environmentally-sound operations, using superior technology.” *(Mission-Vision Statement)*

TeaM Energy Corporation, a partnership between the Japanese firms Tokyo Electric Power Company and Marubeni Corporation, is one of the largest independent power producers in the Philippines, with over 2000 megawatts of installed generating capacity nationwide. It



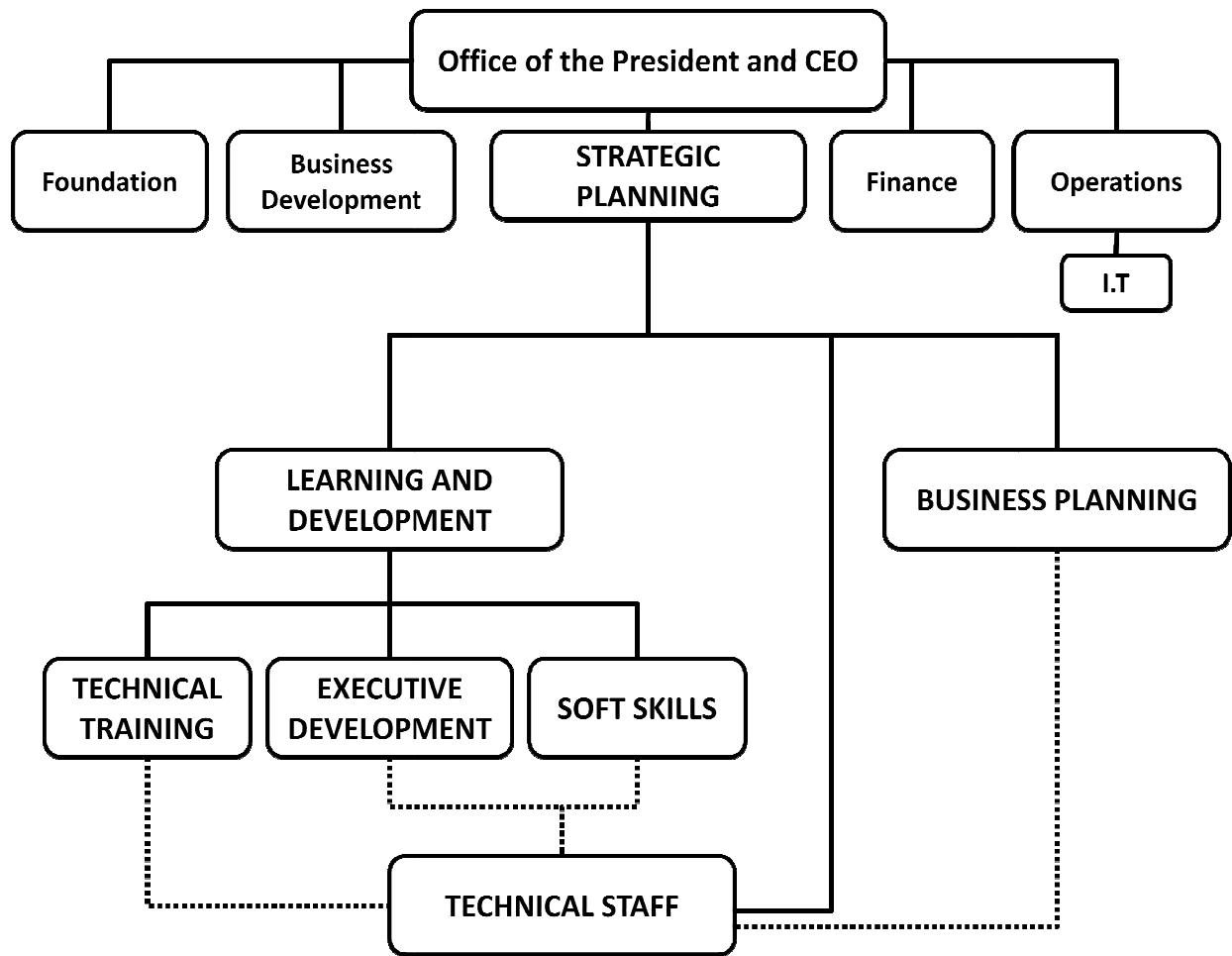
owns and operates power plants in Pagbilao, Quezon and Sual, Pangasinan, and owns a 20% stake in the natural gas-fired plant in Ilijan, Batangas.

TeaM Energy has achieved ISO 14001 Certification in Environmental Management System for Pagbilao and Sual, and has received numerous awards for its exemplary environmental, health and safety performance. It also sets the standards in the industry for operational excellence, with its world-class EFOR (Equivalent Forced Outage Rate) and EAF (Equivalent Availability Factor).

They consider themselves as partners in the country's growth and remain committed to promoting sustainable development. They care deeply about the people they serve and support their local communities in terms of education, health and economic development.

Their mission is to generate and to supply reliable, affordable and environment friendly energy to the Philippines. By establishing an indispensable linkage with the state-owned company NAPOCOR (National Power Corporation), their foremost client in the locale, they synergize in a mutual endeavor of serving as providers and generators of electricity in the Philippines.





(Organizational Chart)



## ❖ STATEMENT OF THE PROBLEM

The Strategic Planning Department of TeaM Energy Corporation has the twofold function of formulating the business plans, strategies, and project studies of the organization, and facilitating the learning and development of all units and levels inside the organization.

They are presently coping with the challenge of developing an accessible, expedient, and regimented research, learning, and training resource inventory to settle the affairs of:

- File integration
- Information access and retrieval
- Maintenance of inventory

At this point in time, they are utilizing a so-called computerized system by using Microsoft Excel. To access the system, every departmental function must approach the Technical Clerk's office at the Corporate Office (CTC) for inquiry on a prospective learning material to be borrowed. The department head then accesses the spreadsheet application wherein information on a specific identifiable material is stored on record. He supplies the key datum, the office location of the material, since individual office's data box filers and cabinets are employed as immediate storage for the materials, in the variety of books, journals, modules, manuals, binders, and departmental forms. The employee then mobilizes to the office situation to borrow from its owner (the office occupier) the preferred material. This manual business process is attested to be time-consuming and ineffective, and unable to cater the need for access on the materials stored at the Sual and Pagbilao company offices. More-over, the department reports of the existing system being incapable of monitoring material status and, as well, unable to sustain the physical conditions of the inventory.

With a department unit that has the integral obligation of composing the directional course of action towards organizational achievement of objectives, a system that doesn't meet the modern trends



on computing will lag behind in research and proficiency. And with the parallel unit duty to facilitate personnel learning and development, an outdated catalog methodology will not influence, towards excellence, the unit's shared target expectations.

#### ❖ OBJECTIVES OF THE SYSTEM

By successfully devising and executing our proposed computer-based library system, we are looking forward to optimally upgrade the business process on corporate and developmental research. Our proposed system is comprised of a dual package deal of a computerized online library catalog system assimilated in an eDocument-based information storage system. With our proposed system named as COILS (Centralized Online Integrated Library System), we intend to:

- Boost information access and retrieval by progressing to a computer-based information system from the current manual search and sorting system
- Integrate the library system to all sections and locations of Sual and Pagbilao corporate offices in order to widen user accessibility

Our vision for our proposed system, COILS, is to design a computer-based application that will highlight:

- instant accessibility by the usage of the desktop computer of the personnel's office
- instant display of organized search results
- instant retrieval of material information





Through these features, we hope to bring about:

(Tangible benefits)

- shorter time consumption inventorying, searching, and borrowing processes
- conservation of space and time
- reduced process inaccuracy

(Intangible Benefits)

- increased organizational coordination
- increased performance and quality delivery of departmental functions
- increased information reliability and availability
- enhanced departmental information security

#### ❖ SIGNIFICANCE OF THE STUDY

We opted for this business process as the area of study due to the perceived prospects for successfully building an effectual computer-based information system as the existent system's replacement. There is a seemingly critical opportunity, out of the ongoing challenge, that our group would like to capitalize in. Designing a computer-based system will, in fruition, alleviate the organizational hassles of manual inventory processing, one that poses the challenges to all departmental functions. This will improve, to a great extent, the usage and accessibility of research resources, thus, accelerating work performance and output delivery on project implementation, particularly of the Learning and Development Department.

With this study, the Strategic Planning Unit of the organization will be thoroughly reinforced in the facets of research, consultation and leisure as well. There shall be a perceptible improvement in how user-personnel of the department will access and recommend learning materials, thus, heightening department unit operation in terms of specialization and task liabilities. Due to the features propounded



by our proposed system, TeaM Energy will benefit from the headway of knowledge and skill foundation granted by the Learning and Development, and Business Planning Departments.

❖ **SCOPE AND LIMITATION**

This system is exclusive for an integrated library system solely for the Strategic Planning Department, therefore it encompasses:

- Design and implementation of the software application and database system
- System integration and maintenance

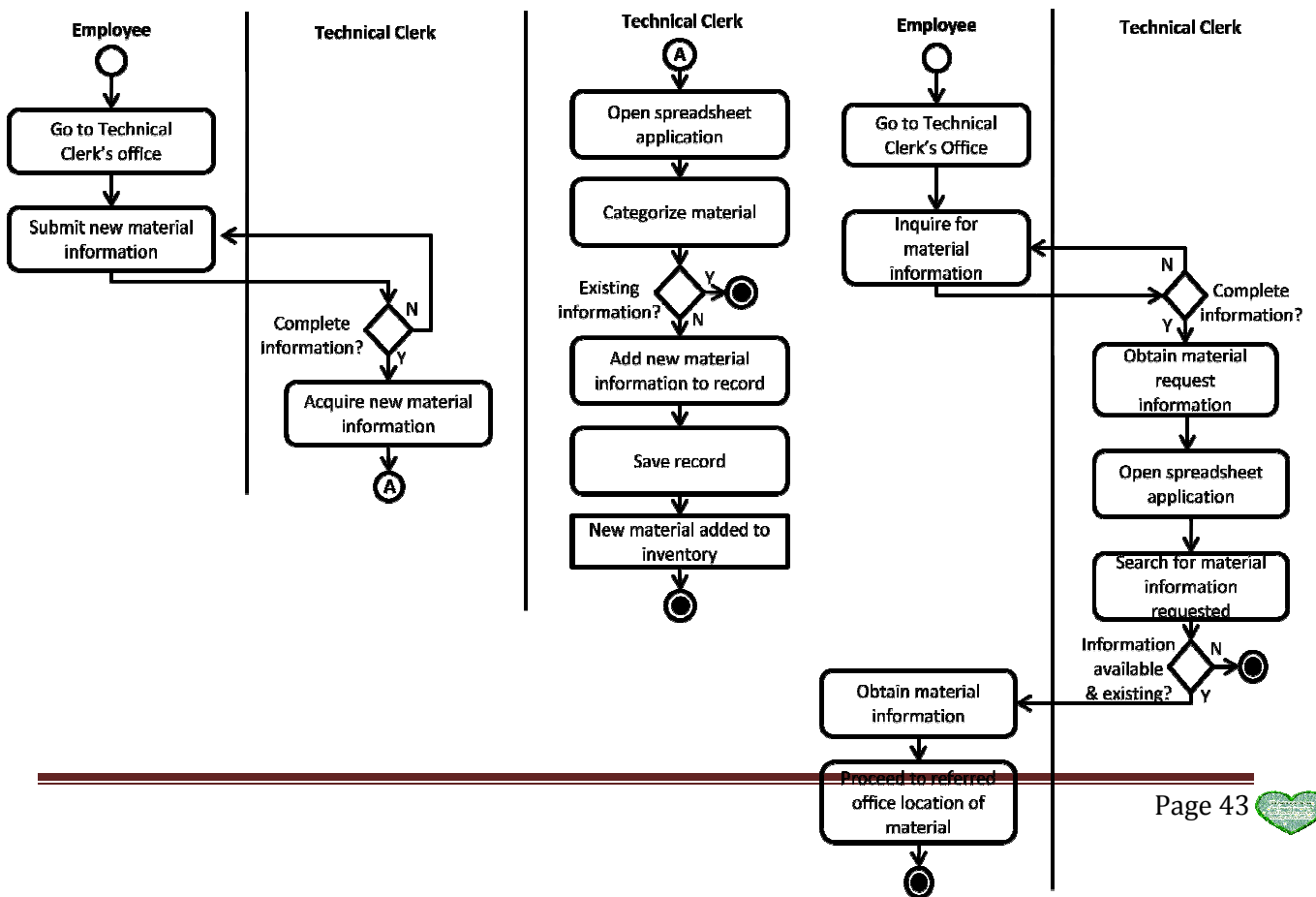
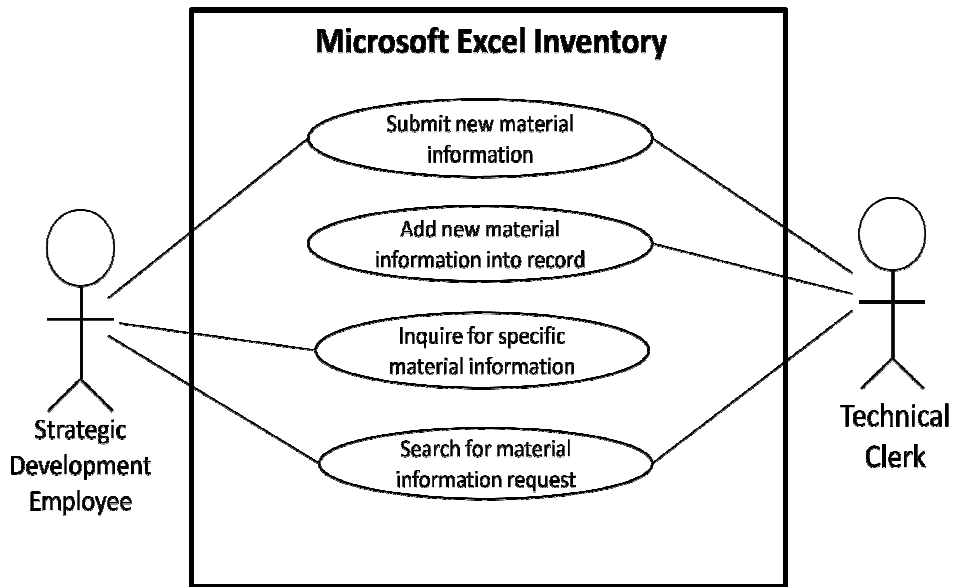
Because the proposed system needs a systematic inventory, every research and learning material must possess a corresponding account identification code, hence, designation of the record information is still incorporated within our scope. Our proposed system has no concern to any further extent beyond these projected affairs, namely:

- Organization and physical safe-keeping of all inventories
- Library system suitable for the classification and organization of the materials
- Conversion of the research, learning, and training materials into electronic documents



## II. CHAPTER 2 :: SYSTEMS ANALYSIS

### ❖ USE-CASE DIAGRAM OF EXISTING SYSTEM



**IDENTIFICATION SUMMARY:**

**Title:** Submit the new material information

**Summary:** This use case allows an employee to submit new material information to Technical Clerk

**Actors:** Employee, Technical Clerk

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Camz Maddela

**FLOW OF EVENTS:**

**Preconditions:**

- Employee should be under the Strategic Planning Department
- New material information must not be an existing record in the Excel inventory

**Main Success Scenario:**

1. Employee goes to office of Technical Clerk
2. Employee submits the necessary information about the new material
3. Technical Clerk acquires new material information

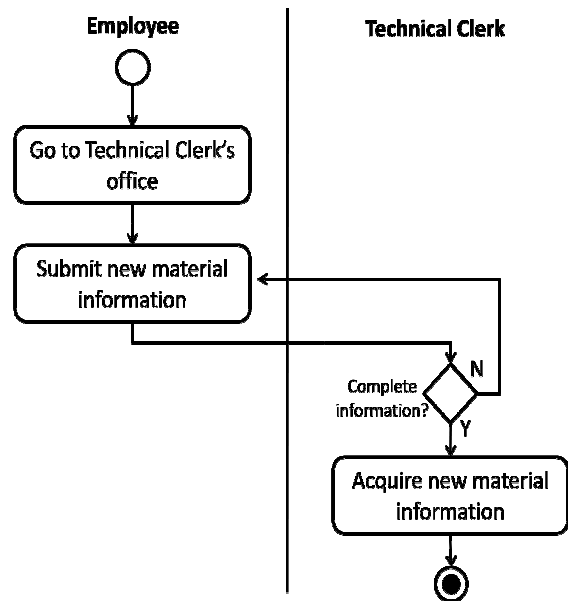
**Alternative Sequences**

**A1 – Incomplete new material information; From 2**

**3:** Technical clerk requests missing information

**Back to 2**

**Error Sequences:**



**E1** – *The employee is not part of the Strategic Planning Department; From 1*

**2:** UC fails

**Post Conditions:**

- ❖ New material information to be inputted into inventory

**IDENTIFICATION SUMMARY:**

**Title:** Add new material information into record

**Summary:** This use case allows the Technical Clerk to add new material information into record.

**Actors:** Technical clerk

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Camz Maddela

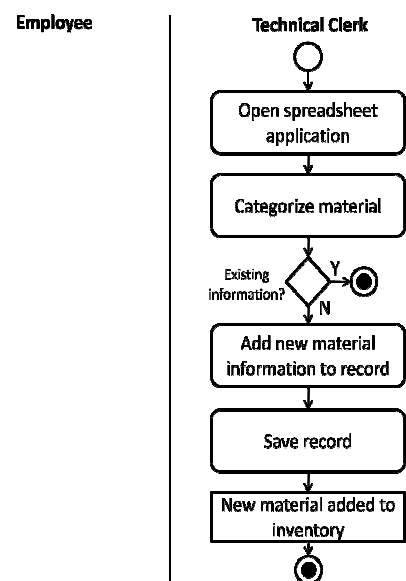
**FLOW OF EVENTS:**

**Preconditions:**

- Microsoft Excel is functioning.

**Main Success Scenario:**

1. Technical Clerk opens the Excel file.
2. Technical Clerk categorizes material information submitted.



3. Technical Clerk adds information of new material.
4. Technical Clerk saves record.

### **Alternative Sequences**

**A1** – *Incomplete material information*; From 2

**3:** Technical Clerk supplies information submitted by employee  
**Go to 3**

### **Error Sequences:**

**E1** – *Existing material information*; From 2

**3:** UC fails

### **Post Conditions:**

- ❖ New material added in the inventory

### **IDENTIFICATION SUMMARY:**

**Title:** Inquire for specific material information

**Summary:** This use case allows an employee to inquire for specific material information stored in the Excel inventory.

**Actors:** Employee, Technical Clerk

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Camz Maddela



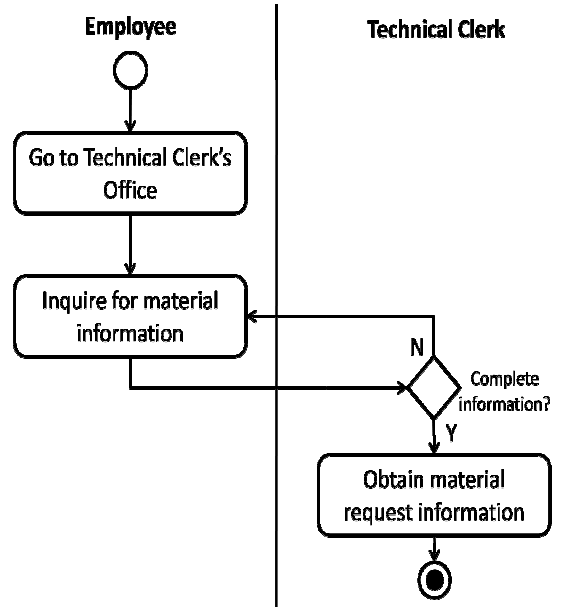
**FLOW OF EVENTS:**

**Preconditions:**

- Employee must be under the Strategic Planning Department

**Main Success Scenario:**

1. Employee goes to the Technical Clerk's office.
2. Employee inquires for needed material.
3. Technical Clerk obtains request information.



**Alternative Sequences**

**A1** – *Incomplete material information*; From 2

- 3:** Employee supplies needed material information  
**Back to 2**

**Error Sequences:**

**E2-** *Employee not under Strategic Planning Department*; From 1  
**2:** UC fails

**Post Conditions:**

- ❖ New search inquiry for Technical Clerk.

**IDENTIFICATION SUMMARY:**

**Title:** Search for material information request

**Summary:** This use case allows the Technical Clerk to search for the employee's material information request.

**Actors:** Technical Clerk, Employee

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Camz Maddela

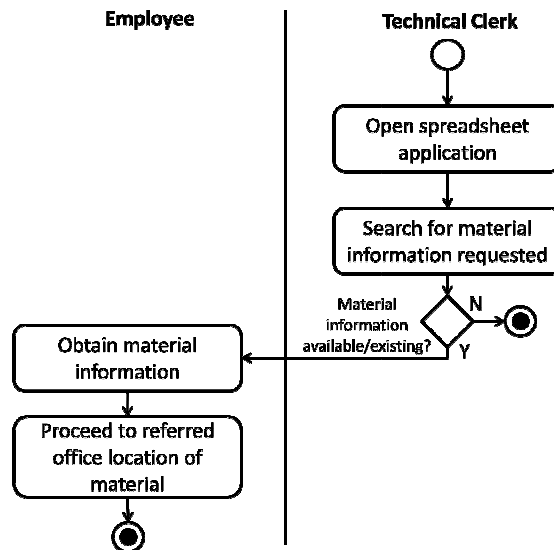
**FLOW OF EVENTS:**

**Preconditions:**

- Microsoft Excel is functioning.

**Main Success Scenario:**

1. Technical opens the spreadsheet application.
2. Technical Clerk searches for material information requested.
3. Employee obtains material information.
4. Employee proceeds to office location of material.





### Alternative Sequences

**A1** – *Microsoft Excel is bug down*; From 1

**2:** Reboot computer

**Go to 2**

### Error Sequences:

**E1** – *Requested material information not found*; From 2

**3:** UC fails

### Post Conditions:

❖ Material information requested is/are obtained by employee

STEP	ACTIVITY
1	GO TO TECHNICAL CLERK'S OFFICE
2	SUBMIT NEW MATERIAL INFORMATION
3	ACQUIRE NEW MATERIAL INFORMATION
4	OPEN SPREADSHEET APPLICATION
5	CATEGORIZE MATERIAL
6	ADD NEW MATERIAL INFORMATION TO RECORD
7	SAVE RECORD
8	GO TO TECHNICAL CLERK'S OFFICE
9	INQUIRE FOR MATERIAL INFORMATION
10	OBTAIN MATERIAL REQUEST INFORMATION
11	OPEN SPREADSHEET APPLICATION
12	SEARCH FOR MATERIAL INFORMATION REQUESTED
13	OBTAIN MATERIAL INFORMATION
14	PROCEED TO REFERRED OFFICE LOCATION OF MATERIAL



❖ PROCESS WALKTHROUGH



[1-3]  
[8-10]



Microsoft Excel - Chebong update file

File Edit View Insert Format Tools Data Window Help

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C376

Office of the President - Strategic Planning

TEAM ENERGY

MASTERLIST OF DEPARTMENTAL FILES

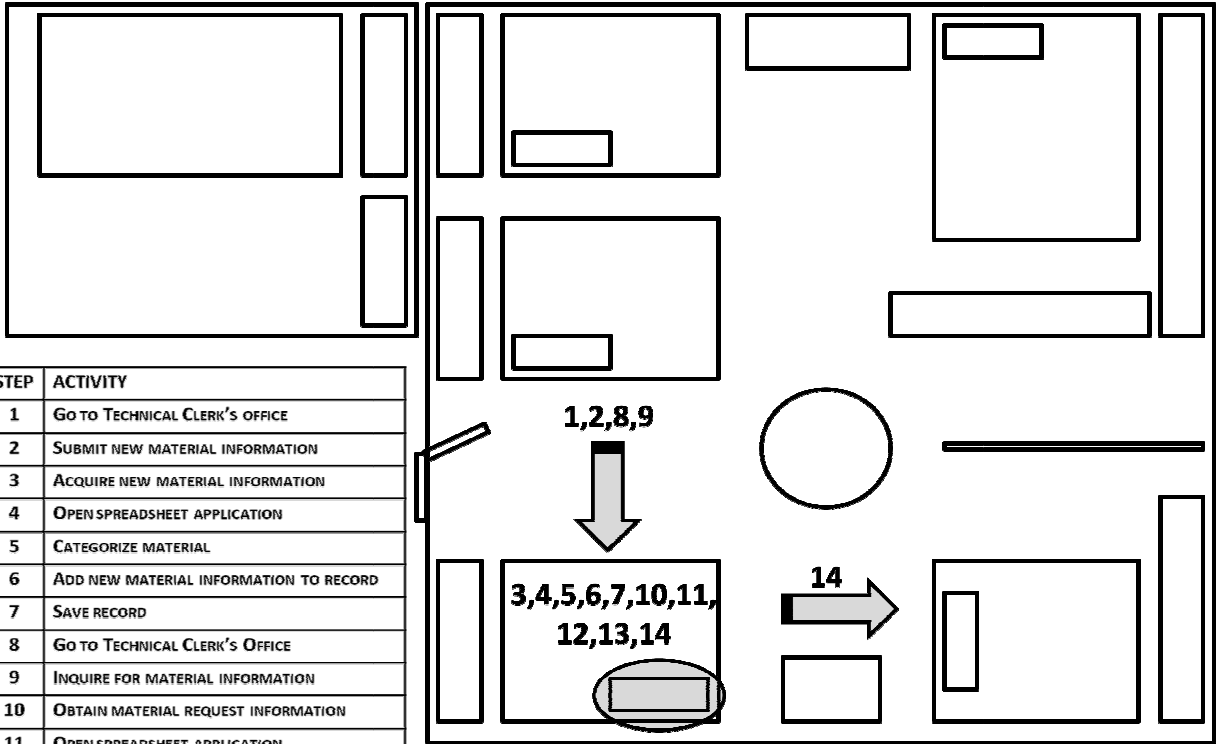
REF #	FILE TITLE	OLD	RTOF		REMARKS
		LOCATION	NAME	DATE	
27	> PAGBILAO 3 EXPANSION INFORMATION MEMORANDUM -	Office	Chebong Dolosa	May 14 2008	1 - Set
28	> ORGANIZATIONAL DIAGNOSIS (DR. D. DUTTA ROY) -	Office	Chebong Dolosa	May 14 2008	1 - Set
29	> E-MAIL - SUBJECT: COMMENTS ON THE SUMMARY				
	INFORMATION MEMORANDUM -	Office	Chebong Dolosa	May 14 2008	1 - Set
30	> MIRANT 2003 EMPLOYEE SURVEY RESULTS (January 26, 2004)				
	Jackie Greener, Ph. D. Matt Valenti, Ph. D. Watson Wyatt -	Office	Chebong Dolosa	May 14 2008	Bind
31	> MIRANT PHILS. OVERVIEW BEYOND TODAY, BEYOND ENERGY -	Office	Chebong Dolosa	May 14 2008	1 - Set
32	> WHEN LIGHT BEGINS, DARKNESS ENDS -	Office	Chebong Dolosa	May 14 2008	Folder
33	> PAGBILAO 3 EXPANSION SUMMARY INFORMATION MEMORANDUM -	Office	Chebong Dolosa	May 14 2008	Bind
34	> MIRANT CODE OF ETHICS AND BUSINESS CONDUCT -	Office	Chebong Dolosa	May 14 2008	Magazine
35	> PAGBILAO EXPANSION -	Office	Chebong Dolosa	May 14 2008	1 - Set
36	> MIRANT - CORPORATE GOVERNANCE (March 2005) -	Office	Chebong Dolosa	May 14 2008	Bind 2 pcs
37	> M P S P -	Office	Chebong Dolosa	May 14 2008	Black arch binder
38	> AIM - EXCELL EXECUTIVE EDUCATION AND LIFELONG				
	LEARNING CENTER -	Office	Chebong Dolosa	May 14 2008	Blue arch binder



[4-7]  
[11-13]



❖ GEOGRAPHIC FLOWCHART



STEP	ACTIVITY
1	GO TO TECHNICAL CLERK'S OFFICE
2	SUBMIT NEW MATERIAL INFORMATION
3	ACQUIRE NEW MATERIAL INFORMATION
4	OPEN SPREADSHEET APPLICATION
5	CATEGORIZE MATERIAL
6	ADD NEW MATERIAL INFORMATION TO RECORD
7	SAVE RECORD
8	GO TO TECHNICAL CLERK'S OFFICE
9	INQUIRE FOR MATERIAL INFORMATION
10	OBTAIN MATERIAL REQUEST INFORMATION
11	OPEN SPREADSHEET APPLICATION
12	SEARCH FOR MATERIAL INFORMATION REQUESTED
13	OBTAIN MATERIAL INFORMATION
14	PROCEED TO REFERRED OFFICE LOCATION OF MATERIAL

❖ **PROCESS TIME VS. CYCLE TIME**

<b>ACTION</b>	<b>PROCESS TIME</b>	<b>CYCLE TIME</b>	<b>DELAY CAUSE</b>
<b>SUBMIT NEW MATERIAL INFORMATION</b>	2-3 minutes	5 minutes	Incomplete information; invalid material
<b>ADD NEW MATERIAL INFORMATION INTO RECORD</b>	5-8 minutes	10 minutes	Bugged-down CPU load speed
<b>INQUIRE FOR SPECIFIC MATERIAL</b>	2-3 minutes	5 minutes	Miscommunication; unauthorized request
<b>SEARCH FOR MATERIAL INFORMATION REQUESTED</b>	3-5 minutes	8 minutes	Sizeable record; slow index; unavailable material
	<b>12-19 minutes</b>	<b>28 minutes</b>	

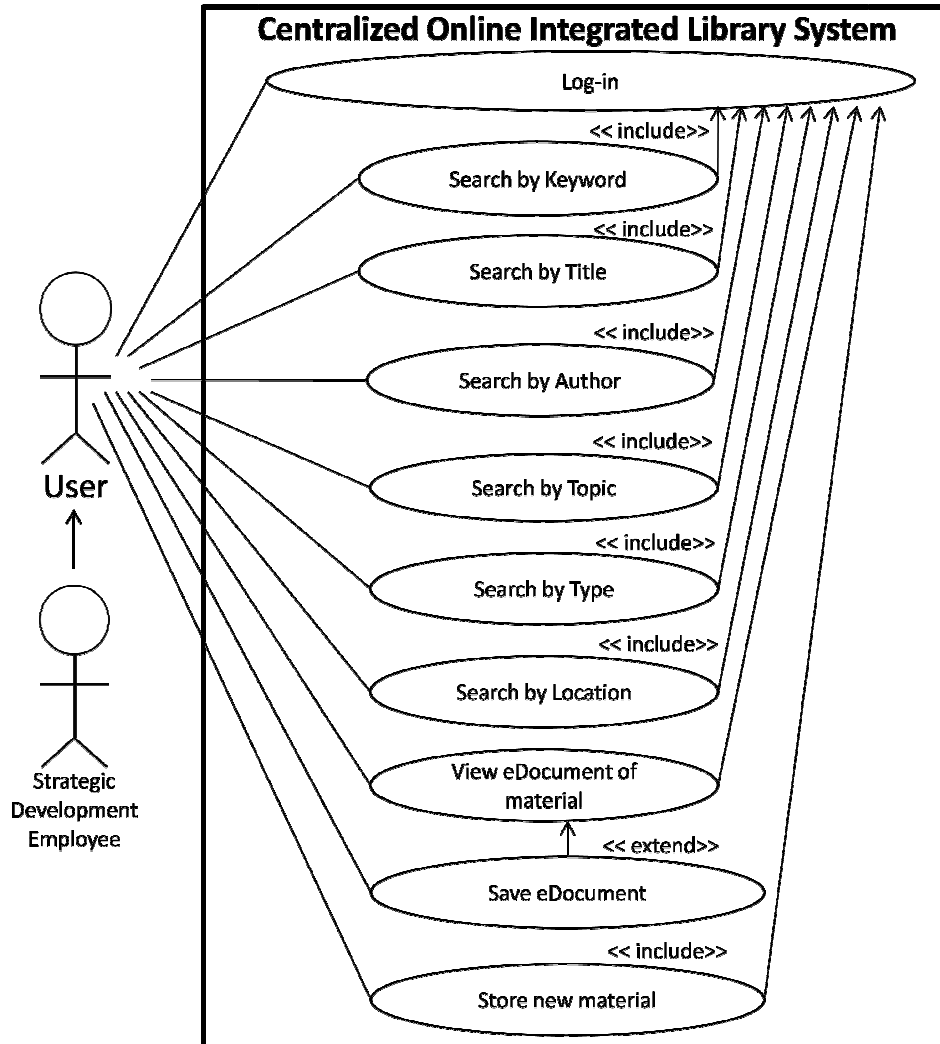
### **III. CHAPTER 3 :: SYSTEM DESIGN**

❖ **TABLE OF RECOMMENDATIONS**

<b>PROBLEMS TO BE ADDRESSED:</b>	<b>RECOMMENDED CHANGE NEEDED TO IMPROVE:</b>	<b>ACTIVITIES AFFECTED BY THE CHANGE:</b>
<b>FILE INTEGRATION</b>	» From scattered materials inventory to a centralized online library database	» Proceed to Technical Clerk Office
<b>INFORMATION ACCESS AND RETRIEVAL</b>	» From physical information to electronic information » From a single employee access to a multi-accessible application for all offices	» Open spreadsheet application » Manually search record » Proceed to specified office location
<b>MAINTENANCE OF INVENTORY</b>	» From the Technical Clerk of the Strategic Planning to the IT Department	» Submit material information to Technical clerk



❖ USE-CASE DIAGRAM OF PROPOSED SYSTEM



**IDENTIFICATION SUMMARY:**

**Title:** Log-in

**Summary:** This use case allows a user to log-in in COILS

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

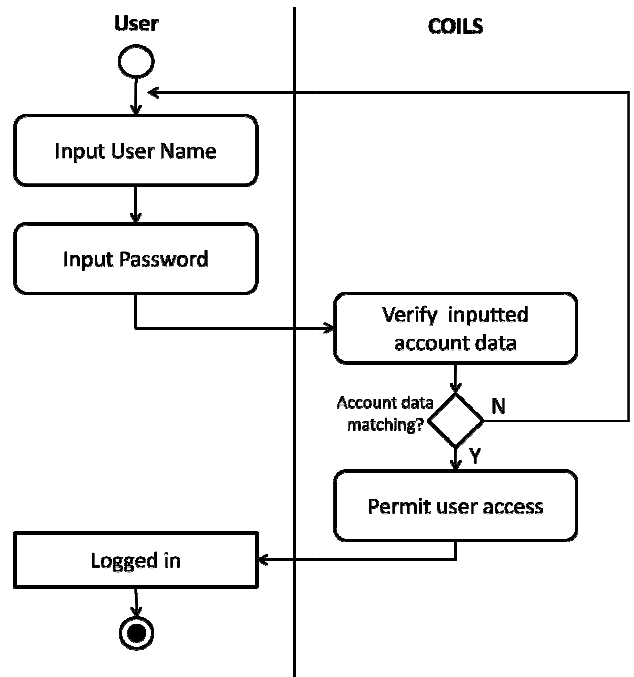
## FLOW OF EVENTS:

### Preconditions:

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

### Main Success Scenario:

1. User inputs Username.
2. User inputs Password.
3. COILS verifies inputted user account data.
4. User successfully log-in in COILS.



### Alternative Sequences

**A1** – *Not matching account data*; From 3

4: COILS does not accept user log-in

**Back to 1**

### Error Sequences:

**E1** – *Network connection abruptly disabled*; From 1

2: UC fails

**E2** – *No existing user account*; From 3

4: UC fails

### Post Conditions:

- ❖ User is logged-in into the system



## IDENTIFICATION SUMMARY:

**Title:** Search by Keyword

**Summary:** This use case allows an applicant to search the database by inputting the keyword

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

## FLOW OF EVENTS:

### Preconditions:

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

### Main Success Scenario:

1. User chooses Search by Keyword.
2. User inputs search inquiry.
3. COILS indexes from database.
4. COILS displays relevant search results.

### Alternative Sequences

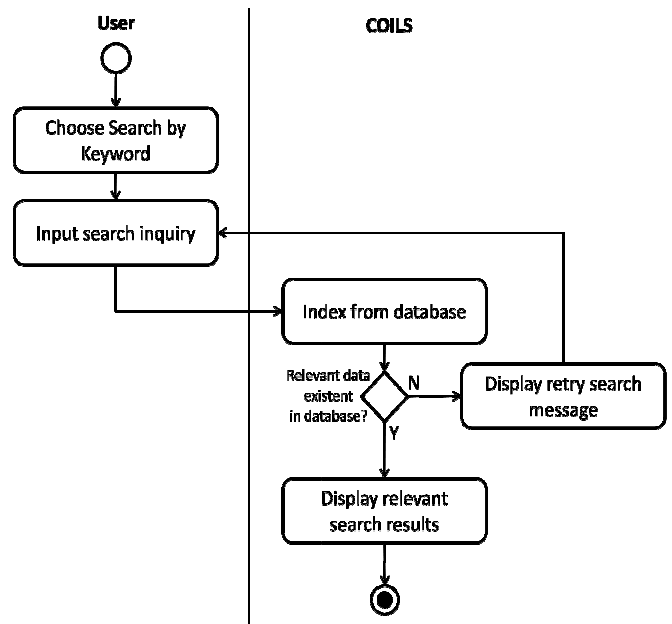
- A1** – *Non-existence of relevant data*; From 3  
4: COILS displays retry search message to user

**Back to 2**

### Error Sequences:

- E1** – *Network connection abruptly disabled*; From 1

2: UC fails





**Post Conditions:**

- ❖ Display of search results according to relevance

**IDENTIFICATION SUMMARY:**

**Title:** Search by Title

**Summary:** This use case allows an applicant to search the database by inputting the title

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

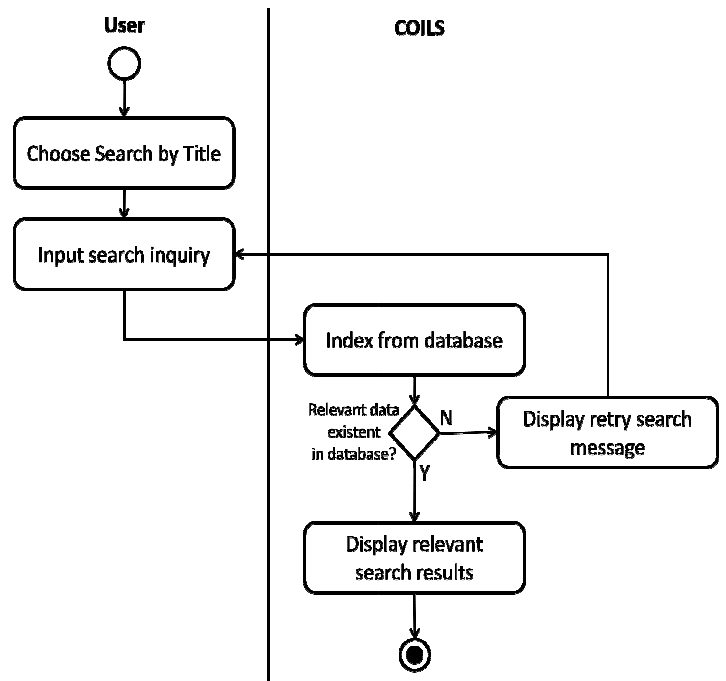
**FLOW OF EVENTS:**

**Preconditions:**

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

**Main Success Scenario:**

5. User chooses Search by Title.
6. User inputs search inquiry.
7. COILS indexes from database.
8. COILS displays relevant search results.



### Alternative Sequences

**A1** – Non-existence of relevant data; From 3

4: COILS displays retry search message to user

Back to 2

### Error Sequences:

**E1** – Network connection abruptly disabled; From 1

2: UC fails

### Post Conditions:

❖ Display of search results according to relevance

### IDENTIFICATION SUMMARY:

**Title:** Search by Author

**Summary:** This use case allows an applicant to search the database by inputting the author

**Actors:** User

**Creation Date:** August 8, 2008 **Date of**

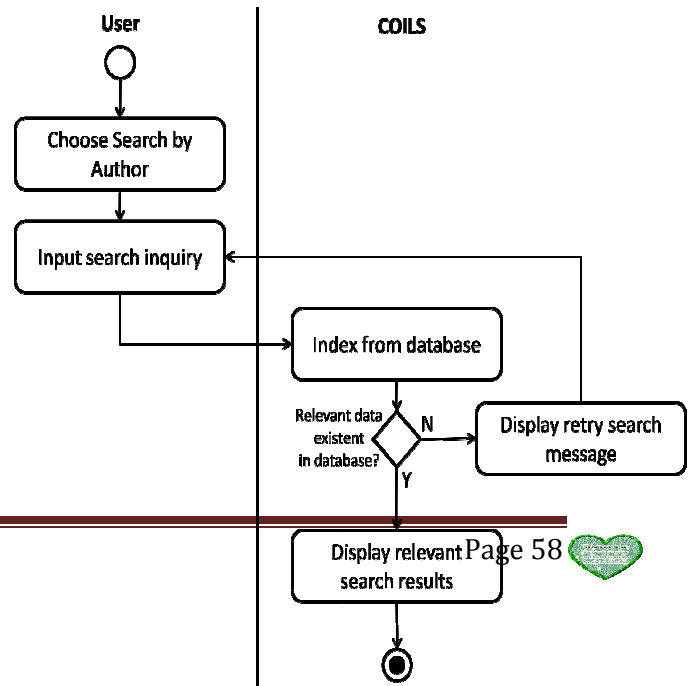
**Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

### FLOW OF EVENTS:

#### Preconditions:

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.



**Main Success Scenario:**

9. User chooses Search by Author.
10. User inputs search inquiry.
11. COILS indexes from database.
12. COILS display relevant search results.

**Alternative Sequences**

**A1** – *Non-existence of relevant data*; From 3

4: COILS displays retry search message to user

**Back to 2**

**Error Sequences:**

**E1** – *Network connection abruptly disabled*; From 1

2: UC fails

**Post Conditions:**

- ❖ Display of search results according to relevance

**IDENTIFICATION SUMMARY:**

**Title:** Search by Topic

**Summary:** This use case allows an applicant to search the database by inputting the topic

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa



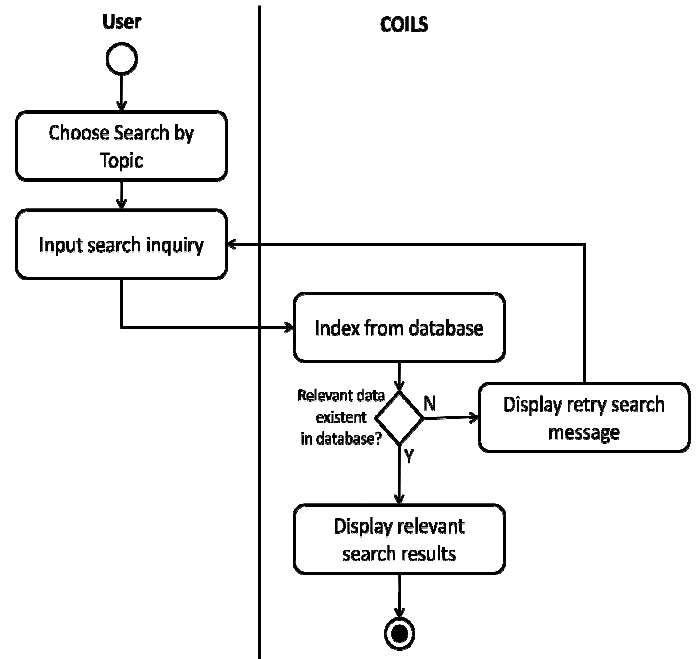
## FLOW OF EVENTS:

### Preconditions:

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

### Main Success Scenario:

13. User chooses Search by Topic.
14. User inputs search inquiry.
15. COILS indexes from database.
16. COILS displays relevant search results.



### Alternative Sequences

**A1** – *Non-existence of relevant data*; From 3

4: COILS displays retry search message to user

**Back to 2**

### Error Sequences:

**E1** – *Network connection abruptly disabled*; From 1

2: UC fails

### Post Conditions:

- ❖ Display of search results according to relevance



**IDENTIFICATION SUMMARY:**

**Title:** Search by Type

**Summary:** This use case allows an applicant to search the database by inputting the type

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

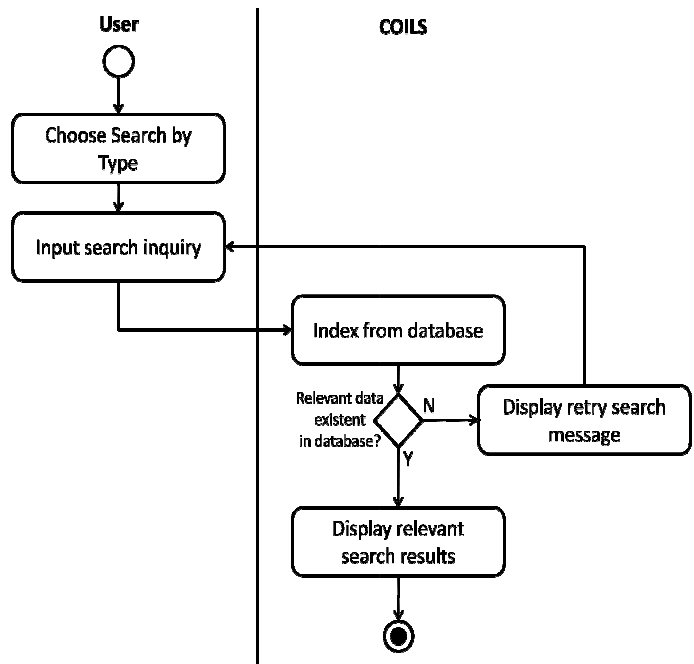
**FLOW OF EVENTS:**

**Preconditions:**

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

**Main Success Scenario:**

17. User chooses Search by Type.
18. User inputs search inquiry.
19. COILS indexes from database.
20. COILS displays relevant search results.



**Alternative Sequences**

**A1 – Non-existence of relevant data;** From 3  
4: COILS displays retry search message to user

**Back to 2**

**Error Sequences:**

**E1 – Network connection abruptly disabled;** From 1

## 2: UC fails

### Post Conditions:

- ❖ Display of search results according to relevance

### IDENTIFICATION SUMMARY:

**Title:** Search by Location

**Summary:** This use case allows an applicant to search the database by inputting the location

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

### FLOW OF EVENTS:

#### Preconditions:

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

#### Main Success Scenario:

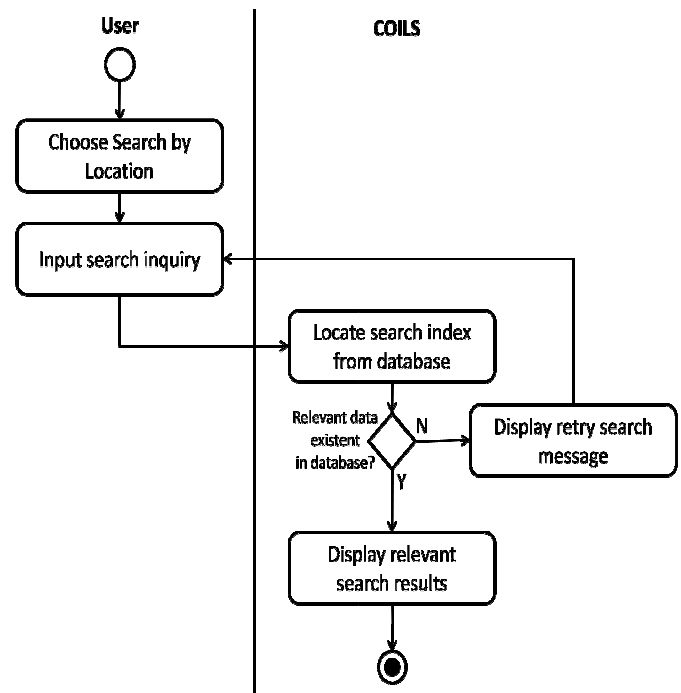
21. User chooses Search by Location.
22. User inputs search inquiry.
23. COILS indexes from database.
24. COILS displays relevant search results.

#### Alternative Sequences

**A1** – Non-existence of relevant data; From 3

- 4: COILS displays retry search message to user

**Back to 2**



**Error Sequences:**

**E1** – Network connection abruptly disabled; From 1

2: UC fails

**Post Conditions:**

- ❖ Display of search results according to relevance

**IDENTIFICATION SUMMARY:**

**Title:** View eDocument of material

**Summary:** This use case allows a user to view the eDocument of a selected material.

**Actors:** User

**Creation Date:** August 8, 2008 **Date of Update:** August 8, 2008 **Version:** 1.0

**Person in Charge:** Luigi Dollosa

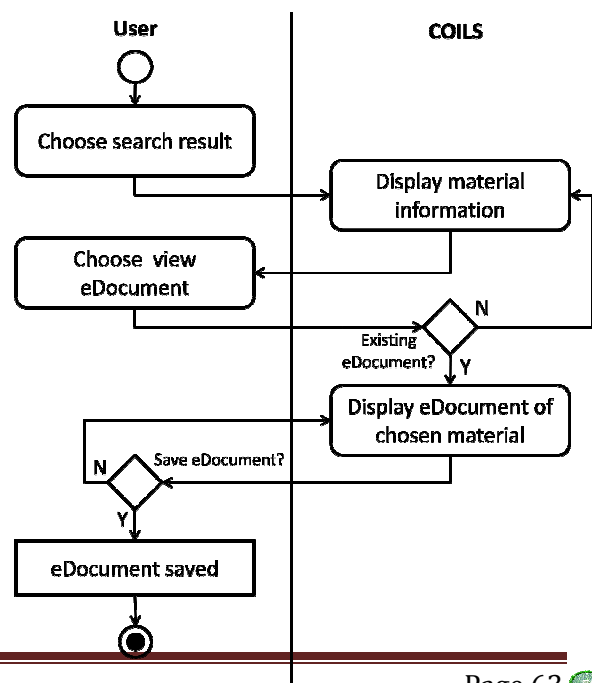
**FLOW OF EVENTS:**

**Preconditions:**

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.
- Material has an existing eDocument in COILS.

**Main Success Scenario:**

1. User chooses a particular search



- result.
2. COILS displays material information.
  3. User chooses to view eDocument of selected material.
  4. COILS displays eDocument.
  5. User successfully saves eDocument.

**Alternative Sequences**

**A1** – *No existing eDocument of material*; From 3

4: COILS displays no eDocument message

**Back to 2**

**A2** – *User chooses to save eDocument*; From 4

5: eDocument is saved to user’s computer

**Go to 5**

**Error Sequences:**

**E1** – *Network connection abruptly disabled*; From 1

2: UC fails

**Post Conditions:**

- ❖ New eDocument is stored in user’s computer.

**IDENTIFICATION SUMMARY:**

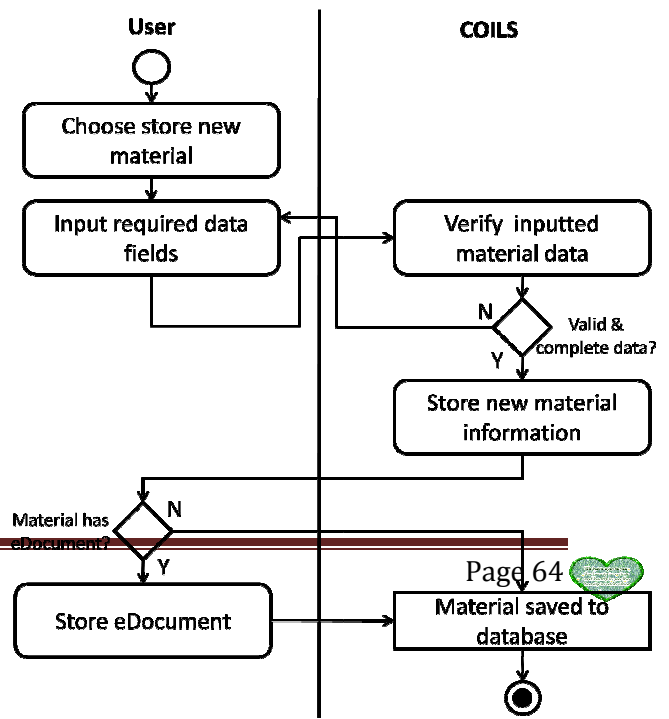
**Title:** Store new material

**Summary:** This use case allows a user to store a new material in COILS

**Actors:** User

**Creation Date:** August 8, 2008 **Date of**

**Update:** August 8, 2008 **Version:** 1.0





**Person in Charge:** Luigi Dollosa

**FLOW OF EVENTS:**

**Preconditions:**

- User must have a COILS user account.
- COILS is fully functional and not under maintenance.

**Main Success Scenario:**

1. User chooses Store new material.
2. User inputs required data fields.
3. COILS verifies inputted material data.
4. COILS stores new material information.
5. User stores eDocument of material.
6. COILS saves new material record to database.

**Alternative Sequences**

**A1** – *Invalid/incomplete inputted data*; From 3

4: COILS displays message to answer required data fields

**Back to 2**

**A2** – *No eDocument of material*; From 5

6: COILS just saves data the user inputted

**Go to 6**

**Error Sequences:**

**E1** – *Network connection abruptly disabled*; From 1

2: UC fails

**Post Conditions:**

- ❖ New material record is stored in COILS.



❖ **BENCHMARKING**

OPAC (Online Public Access Catalogue), an integrated library system, is a computer-based inventory of the learning materials contained in a library. Individuals can be able to access it at computer terminals held inside the facility, or even at home, through the internet. It possesses an index of the learning materials cataloged in the library system.

The LRC's (Learning Resource Center) of DLS-CSB are fully housed with several functional computer units which have OPAC accessible for library users.

<b>METRIC</b>	<b>DLS-CSB LRC OPAC</b>	<b>COILS</b>
<b>NUMBER OF CUSTOMERS</b>	1	1
<b>AVERAGE TRANSACTIONS PER DAY</b>	30	10
<b>NUMBER OF BRANCHES</b>	1	1
<b>TYPE OF INFORMATION SYSTEMS</b>	CBIS	CBIS
<b>INDEX SPEED</b>	0.3 seconds	0.3 seconds
<b>ACCESSIBILITY</b>	Each computer of each LRC branch	Each computer in each office in the CTC (Corporate Office), Sual and Pagbilao Powerplant Offices
<b>RESULT DISPLAY</b>	Infinite (Scroll-down window)	15 per page
<b>RESOURCE MATERIAL INFORMATION</b>	Title, Author, Subject, Series, Call Number, Category	Title, Author, Type, Topic Office Location, eDocument

❖ **STREAMLINING**

<b>TOOL</b>	<b>REASON   ADVANTAGE</b>
<b>BUREAUCRACY ELIMINATION</b>	Instead of going to the Technical Clerk's office for material request and proceeding to a specified office location for material borrowing, COILS does only a single interfacing through the office desktop computer, thereby eliminating over-all process cycle time.



<b>SIMPLIFICATION</b>	The over-all process is simplified in COILS by having COILS possess a search engine together with eDocument user accessibility, and giving users the immediate freedom to add new material in storage.
<b>PROCESS CYCLE-TIME REDUCTION</b>	By eliminating unwanted office interfacing through the implementation of a centralized information system, cycle-time is enormously reduced in the over-all process.
<b>ERROR PROOFING</b>	The manual process eminent in the department is prone to human flaw because it is maintained by a non-I.T practitioner and the Spreadsheet application can be misused without appropriate user accessing.
<b>UPGRADING</b>	Since COILS is a CBIS, the I.T department is accountable to the evaluation, maintenance, and enhancement of the system, making it suitable to the changing needs of the departmental employees in the Corporate and Power Plant offices also.
<b>SIMPLE LANGUAGE</b>	COILS graphical user interface is constructed in a manner that there will be reduced effort in accessing the application. COILS also makes data organized and its features ensures the employees of efficient and productive research and reference.
<b>STANDARDIZATION</b>	The features of our proposed system are subject to instinctive interpretation. Alongside with the user-friendly interface, employees will be able to comprehend the processes involved in COILS even at first glance.
<b>SUPPLIER PARTNERSHIP</b>	COILS is guaranteed to be 100% functional at initial purchase. We, as developers of the system, ensure that our clients in TeaM Energy will be supplied with authenticated, functional, and long-lasting product quality.
<b>BIG PICTURE IMPROVEMENT</b>	With COILS, there is a sure-fire improvement in research efficiency, training proficiency, and personnel competence- 3 key goals the Strategic Planning Department give great emphasis on.

## IV. APPENDICES

### ❖ INTERVIEW TRANSCRIPTION

**Hi ma'am! Can you give us an overview of the Strategic Planning Department?**

“Function wise lang muna ha. So, this is Dannie, he developed a way of developing the goals for the whole company. And then we monitor the performance. On the other side, we also have learning and development functions. “



“For trainings, we have 2 plans. One in Pangasinan and one in Pagbilao in Quezon. Each of these sites has around 300 personnel. So we also look at the training requirements of these people which we can categorize into two. Technical training which is related to the operations of the plant. The other one is the skills training which is related to the non- technical like communication, leadership.”

**So we’ve heard that you have a learning resource inventory here. Kindly expound on this.**

“Actually I have two ideas there e, although one, we are already working with IT. One is having an inventory of all the existing trainings of the organization. That’s something that we’re currently working on. A need that we still aren’t looking into is an inventory of all the new materials that we have and I think that’s something that you can focus on.”

“Right now, because it was only in January where we were organized to have all the trainings under us. Before kasi, it was just the executive development. But then even the organization, we might as well have all the learning development activities under us. So it was only early this year that we have paper from the site, the one in Pagbilao and this is should be under HR, but now nasa amin na.”

“We have an existing inventory, the one with Eddie?? He’s a technical clerk and he is encoding the files that we have. In the others sites, they have their own which I haven’t seen. Technical training and Soft skills for the executive development, they are manual. “

**So, why and how do you use this system using Excel?**

“We want to provide training that is efficient, effective and we’re also developing our own system where in they can develop their own manuals. One help that we could inquire is this type of system should have a search engine where it is easy for us to determine the location of the manual. Or what are the relevant files for this subject matter. In which you have to do some categorizing. “

“We have shelves where the manuals are, by office too. You have to consult the technical clerk if you need something. Boss Ed handles our files here in the office. In Pagbilao, it’s Joseph. He is just new and he’s just starting to familiarize himself with the files. Training officer is Carlo, Joseph is the assistant. Si boss Ed titignan niya pa dun sa Excel file.”

**What problems do you deem important in utilizing this process?**

“Hiwalay pa yung files. Sual has (simulator) room where a person is to be trained in using the similar control in the actual plant. I have a feeling it would have to borrow the manuals. I agree also that later on there could be cross training din. Pwedeng maghiraman sila ng files.”



“Not actually sharing but making available certain forms that are common to all. Forms related to enrolling or applying for a learning activity. We just started implementing on reporting forms for all.”

“I think number one would be efficiency in us working as a team. There are some things that we need to share. Efficiency as we serve our internal clients and employees. Second is yung organization. We’re not that organized yet. As we begin sharing we lose it.”

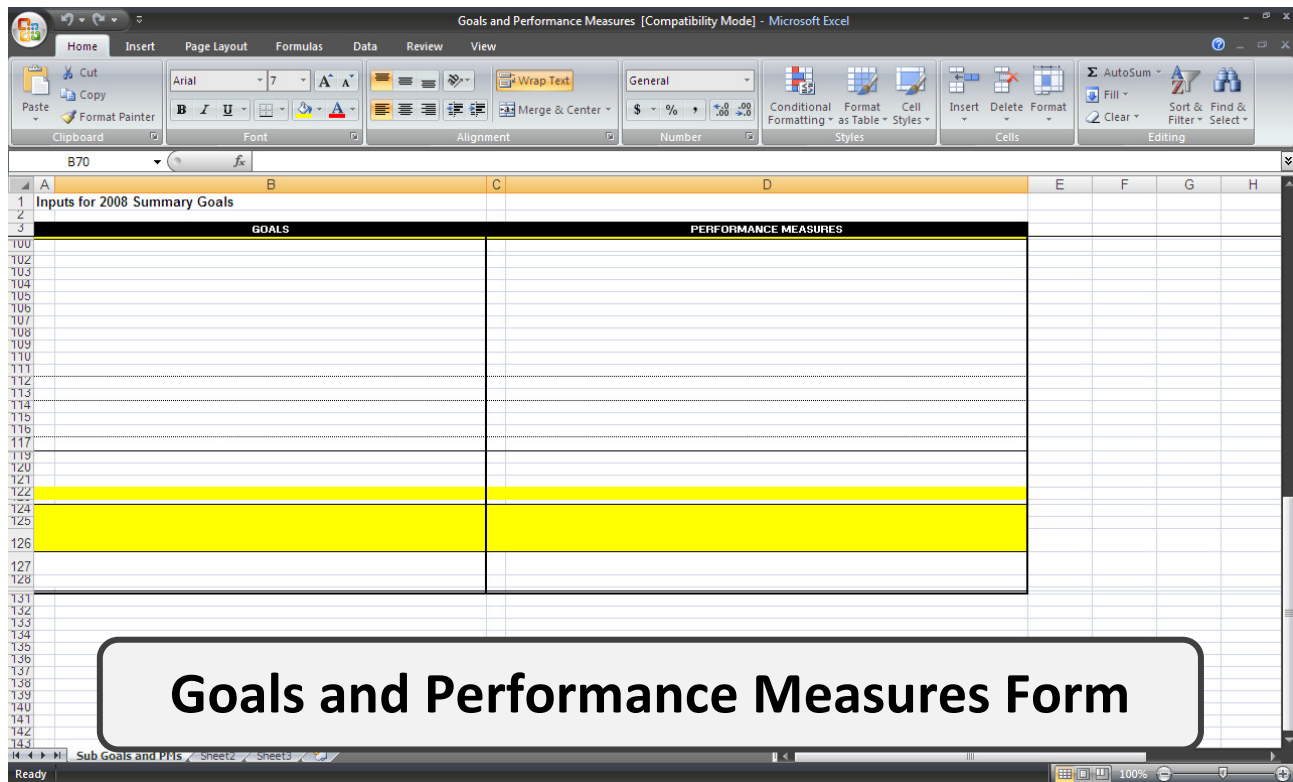
“Is it possible that people outside can access to the files that we can share? “

“What if magkasakit si Boss Ed? Siya lang may alam ng lahat. Parang kanya- kanya din. I think pinaka kelangan ng tulong is yung sa Sual and Pagbilao kasi very similar yung mga technical trainings.”

**Last question, what are the main issues to be tackled with your Excel inventory?**

“More on speed, efficiency, organization, cohesiveness of the offices and employees.”

**❖ IMPORTANT DOCUMENTS**



Program Enrollment Form [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View

Clipboard: Cut, Copy, Paste, Format Painter

Font: Arial, 10, Bold, Italic, Underline, Text Color, Background Color

Alignment: Wrap Text, Merge & Center

Number: General, Currency, Percentage, Decimals, Fractions

Styles: Conditional Formatting, Format as Table, Cell Styles

Cells: Insert, Delete, Format

Editing: AutoSum, Fill, Clear, Sort & Filter, Find & Select

A1 LEARNING & DEVELOPMENT

37																										
38	/Supervisor / Manager/													For Off Shore Programs:												
39	Learning & Development						Department Head						Division Head / Station Manager						President & CEO							
40																										
41																										
42	/Executive/																									
43	Group Executive						Learning & Development						President & CEO													
44																										
45																										
46	/Executive Committee/																									
47	Group Executive						Learning & Development						ExCom 1/ ExCom 2 / ExCom 3/Strategic Planning Executive						President & CEO							
48																										
49	Learning Development Team																									
50	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Re-schedule																									
51	<input type="checkbox"/> Within approved PMP Development Plan																									
52	<input type="checkbox"/> Responding to currently-identified needs																									
53	<input type="checkbox"/> covered by Retention Policy																									
54																										
55	Other Requirements																									
56	<input type="checkbox"/> Memorandum of Agreement for Retention Period Policy																									
57	Post Learning Activity:																									
58	<input type="checkbox"/> Learning Feedback Report																									
59	<input type="checkbox"/> Copy of Certificate of Attendance																									
60	<input type="checkbox"/> Copy of Manuals / AV Materials Provided in the Program (as required by Technical Programs)																									
61	Original: Learning & Development / copies to: Finance & Employee-Applciant																									
62																										
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67																										
68																										
69																										

enrollment copy

Count: 67 100%

## V. CONCLUSION

The Strategic Planning Department of TeaM Energy is posed with an opportunity to spur their cohesive unit headway by improving the existing system they are employing for their Research, Learning, and Training Materials Inventory. The Microsoft Excel inventory system they are utilizing, for the meantime, is definitely granting them drawbacks in terms of file integration, information access and retrieval, and maintenance of inventory. With the integral organizational role of the Strategic Planning Department, an inventory system that hampers their efficiency and effectiveness in attaining their short-term and long-term objectives in research and training, such system should be immediately resolved through corrective actuation. Our group, by implementing a first-hand systems analysis on such scenario, decided to conceptualize a system design proposal that we are proudly putting to the fore, the Centralized Online Integrated Library System.

COILS, as we may commonly address our design, is simply a computer-based library application that creates a centralized system that will allow users to index their inquiries in an embedded search engine mechanism that obtains results through an in-built database inventory. Furthermore, COILS makes it possible for users to gain the online experience by the integration of eDocuments. Not only does COILS boosts information access and retrieval, but it also realizes the ongoing departmental issue of centralizing all their vital data for their actual activities. And by furnishing the accountability to the I.T department, COILS can be managed proficiently by a more specialized workforce. Lastly, COILS boasts its undoubtedly appealing and user-friendly user interface that gives the software application the functionality and as well the aesthetic it rightfully deserves.

From a simple spreadsheet application to a real deal computer-based information system, the TeaM Energy's Strategic Planning Department is on a clear path towards their sure-fire goals of fulfilling their over-all functions whilst retaining confidentiality, and catalyzing their research, training, and learning necessities. It will, from now on, boil down to the ingenuity of COILS.

