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Designing a college social Networking Website

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Abstract

Social networking websites are one of the most common sites that people used in daily life basic, while some people cannot do without a social website within a short period time. Social network is a dynamic website for fun and online services that centre on possible building of social relations among friends and relatives, by sending of public and private messages to each other. Furthermore, social networking can also be linked into educational activities. When a social network is correctly used, it can promote the engagement of the student, create connection in linking up with expert worldwide, and it can also helps in creating an online study and many more. The test results of this project shows that college social network has a positive consequence by adding the new features to the existing ones, and it also shows that it will really append good impact on college student if it is use in a proper way.

Acknowledgements / Foreword

I would like to use this opportunity to say thank you to all my family and friends who has been of help to me during my studies here at MIUN. Special thanks also go to my Supervisor Dr Magnus Eriksson, my Examiner Dr. Patrik Österberg and Dr. Ulf Jennehag My appreciation also goes to all my colleagues that took part in the questionnaire survey, as without them the report won't be absolute.

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Terminology / Notation

VIC	Video Tool
AOL	Alert on Line
CA	Certificate Authority
CSS	Cascade Style Sheet
RA	Registration Authority
RAT	Robust Audio Tools
SSL	Secure Socket Layer
TLS	Transfer Layer Security
DVTS	Digital Video Transport
PHP	Hypertext Pre-processor
HTML	Hypertext Mark-up Language
ODBC	Open Database Connectivity
RTMP	Real Time Messaging Protocol
RTMP	Real Time Messaging Protocol
TCP/IP	Transfer control protocol/Internet Protocol

1 Introduction

Technology is moving at an alarming rate. It is moving at such pace that it is very easy for the most technological informed nation or individual to be left behind within weeks or months. Information changes everything now and then as new and advanced technology and new ways of doing things are introduced.

The Web from its inception has been everywhere. Now it has even become more important since it is used for almost everything. New technologies for developing apps like HTML5, MYSQL, CSS3, PHP and JavaScript are more readily accepted for developing and designing website applications due to their efficiency and lightness. The result is that websites developed with these technologies display faster even with small bandwidth.

Since the very time social networking has begun, social networking website such as twitter, face book and MySpace has influenced many users around the world. As at today, more than hundreds of social networking website has been implemented with different technologies around the world.

1.1 Background and problem motivation

Many at time Websites have a propensity to be too complex, having problems of security and data privacy and cumbersome to navigate through as a result of bad designs. This is especially true for social networking websites. There seems to be too much inefficient designs, conflicting colours, meaningless graphics, too many blinking texts and slow response. These challenges in site designs always put off many potential Users.

1.2 Overall aim / High-level problem statement

The project overall aim is to acquire new knowledge within the organization of Campus social networking site and to identify some new features that can be added to social network of today's that will makes users to transits from social network of today's. The goal is also to present some new features like video streaming within a group of friends or video conferencing, features that helps student to work collaboratively on a group assignment, and how to fix an issue whereby you get too much of notifications that certain government or an organisation may determine.

1.3 Concrete and verifiable goals / (Low-level) Problem statement

The concrete goals and the verifiable goals of the project are:

- To design an online social network, that is mainly developing for the purpose of campus life activities and a source of academics.
- To conduct a survey to know which features are missing from the old existing social networking website.
- To design a platform that will make campus student to keep up their relationship with their fellow student and to reach out to the ones they have not met.
- To design a platform user can share some knowledge materials, books that are related to their study field and questions/answers.
- To identify some new features, that can be added to social network within an organisation of student through the means of a survey.

1.4 Outline

Chapter 1 introduces the project. Chapter 2 present the theory that the project based on, Chapter 3 present the methodology used to find the relevant theory for the result.

Chapter 4 present the survey report, Chapter 5 present the design of the project, Chapter 6 present the implementation, and chapter 6 present the conclusion future work and the ethical aspect of the project. The project ends with references.

2 Theory / Related work

This chapter contains the summary of preliminary literarily study and provides the background and the description of the materials that was used during the process of this project. Section 2.1 provides the report on request/response of server sequence that takes place during the process of running a browser. Section 2.2 gives the preview of secure and unsecure website. Section 2.3 provides the description of server side language that was used in this project and finally section 2.3.1 provides the comparison table of some college social networking website.

2.1 Request/response of server sequence

The requests and responses that frequently take place between the running browser, the web server and the end user's computer is normally leading by HTTP (Hypertext Transfer Protocol). The works of the server are to accept a request from the user and make an effort in replying it in a proper way. There can be other kinds of devices between clients and a server, such as routers, gateways, hubs and many more.

The devices serve different task to make sure the responses and requests are transferred correctly between the client and server. The internet is used in carrying out this operation. In the sending the webpage and in receiving from the server the responses consist of the web server in doing the task, and the page is now displaying by the browser. The method of requests/procedure is shown in figure 1.

When a user enters `http://google.com` into a browser address bar, the IP address of `google.com` will be search from the browser, and then the browser will now issue a request for the homepage of `google.com`. Furthermore, the request will now passes through the internet and arrive at the web server of `google.com`, after when the web server has received the request. The web page is being look on the hard disk, and the will then regained, thereafter the webpage will be retrieved by the server and display it to the browser.

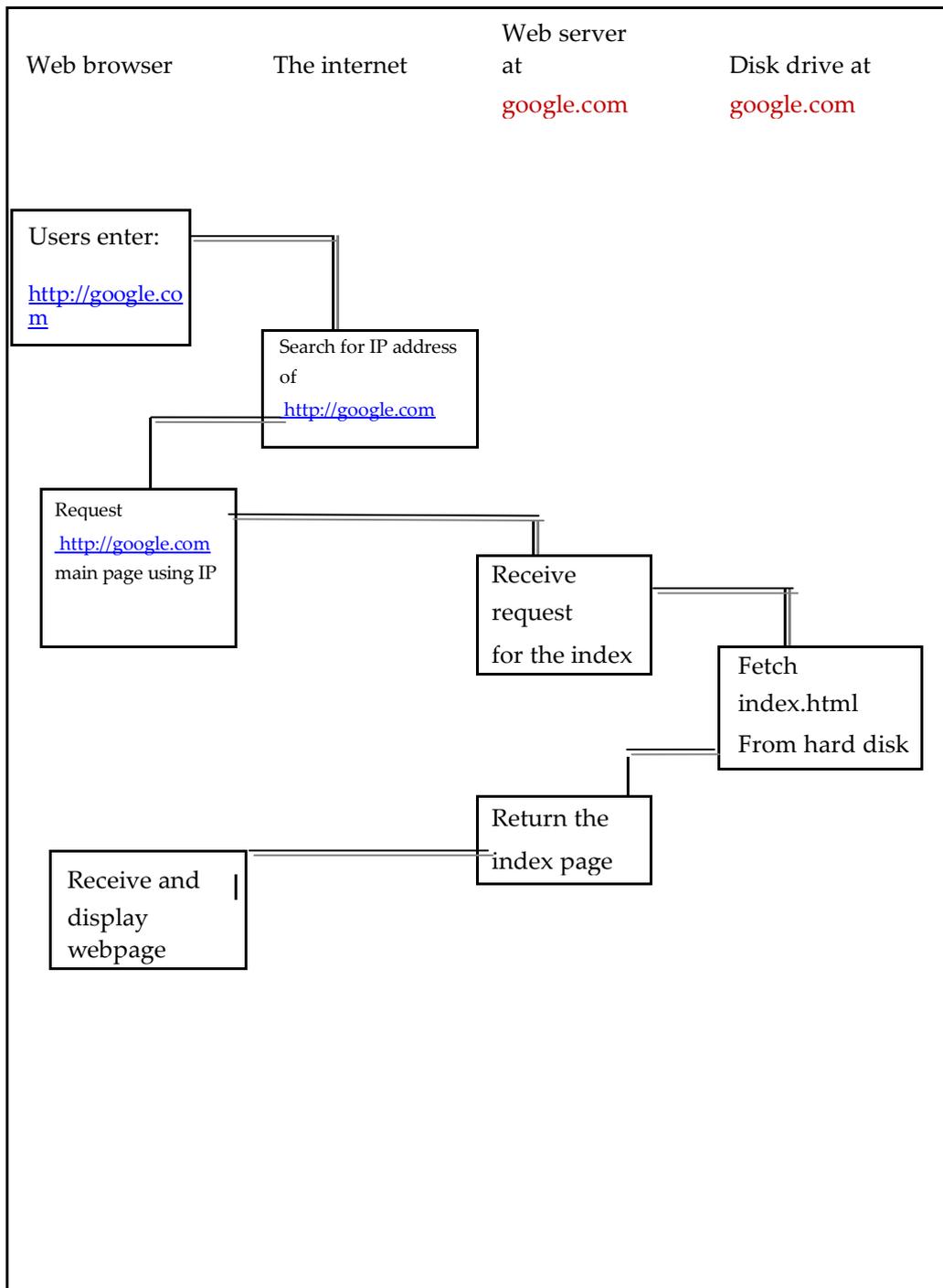


Figure1: Example of server/ client and request/response sequences.

To navigate through many pages on a web server, it takes a lot of steps because it involved both PHP and MySQL in combination. As shown in

(figure 1), it shows the steps on how WebPages are being retrieved and display on a web browser. When a user on an end user enters `htt://google.com` into a web browser bar, the IP address of Google.com will be search from the browser, and then the browser will issue a request from the server.

Furthermore, the request will now passes through the internet and arrive at the web server of Google.com, after when the web server has received the request. The web page is being look on the hard disk and being retrieved by the server, and it will now later be retrieved the webpage and display it to the browser.

After when the home page is now the memory, it is discovered by the server that the file is a PHP script, and then go ahead by passing the page to PHP interpreter to execute the code and in some PHP, MySQL statement are included then later pass by PHP interpreter to the database engine of MySQL, after it has been interpreted by MySQL database engine then return it back to PHP interpreter.

Architecture of Web Application

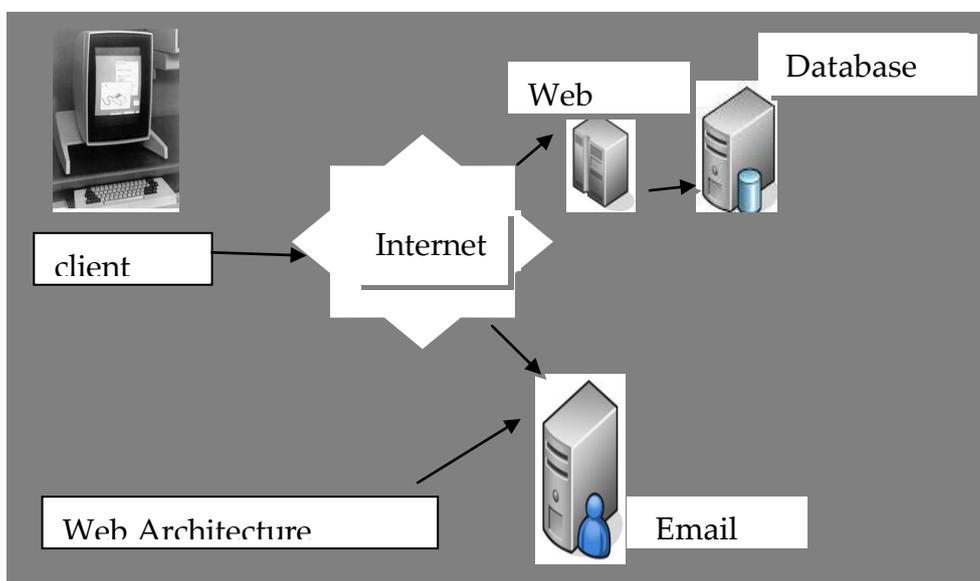


Figure 1.1: Example of Architecture of web Application.

Client architecture is use on web application, and the architecture consists of server where the resources are shared with clients over a network. Figure (2) shows a simple architecture of web application. Client and web server communicate through the internet, NIC (Network Inter-

face Card) is used to connect a computer o the network through a wireless or a wired a cable. Figure (2) shows how data is crossing to the internet by a client from the top left to the right bottom.

In making resources available to other clients over a network, Server is used in sharing website, files, database or an email. Transfer control protocol and hypertext transfer protocol are the two protocols (TCP/IP and HTTP) that web application depends upon. HTTP is the protocol used in communicating on the web server and web browser while TCP/IP is a protocol suite that let two different users communicate over a network.

2.2 Enabling a secure connection on a website

Dealing with a website that has a secure connection is the process of preventing others from having access over user's data that are transmitted over the internet. In general, secure connection is usually used when passing very important data between the server and client. And due to the time requires in decrypting and encrypting data that are sent over a secure connection, because secure connection (HTTPS) are slower than the regular HTTP connections.



Figure 2: Example of request made from secure connection.

Furthermore, in knowing if someone is transmitting over a secure connection is by reading the URL. If the URL begins with HTTPS rather than http, then a secure connection is used. In some web pages a small icon that shows a pad lock at the right bottom of web site also signifies a secure connection. Figure 2.2 shows an example made with secure connection request

The URL that starts with https

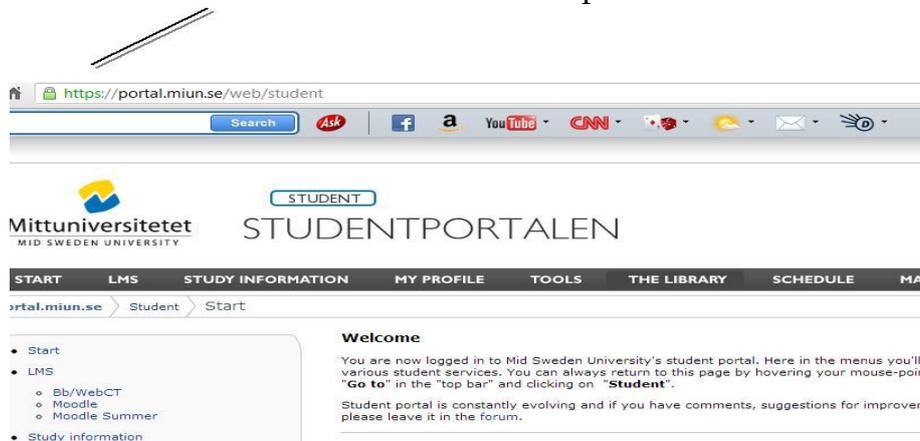


Figure 2.1 Request made over secure connection that starts with https.

The two protocols that client and server make used to communicate over secure connections are Transport Layer Socket (TLS) and SSL Secure Socket layer. Though, SSL protocol is an older internet protocol that permits users to send data between client and server on a secure connection while TLS protocol is a modern protocol. However, an older browser uses SSL, and some newer browser also uses it, but TLS is not supported by some latest browser.

That makes any server that implement TLS must also add SSL but now TTL support Chrome v2, safari v6, opera v12.10 and internet explorer v10 browser these are the latest browser release in year 2012 and 2013. SSL has an advantage of knowing if data has been tampered with during transmission over TLS. In order to use and transmit data through SSL protocol, Authentication must be an issue by the client and server.

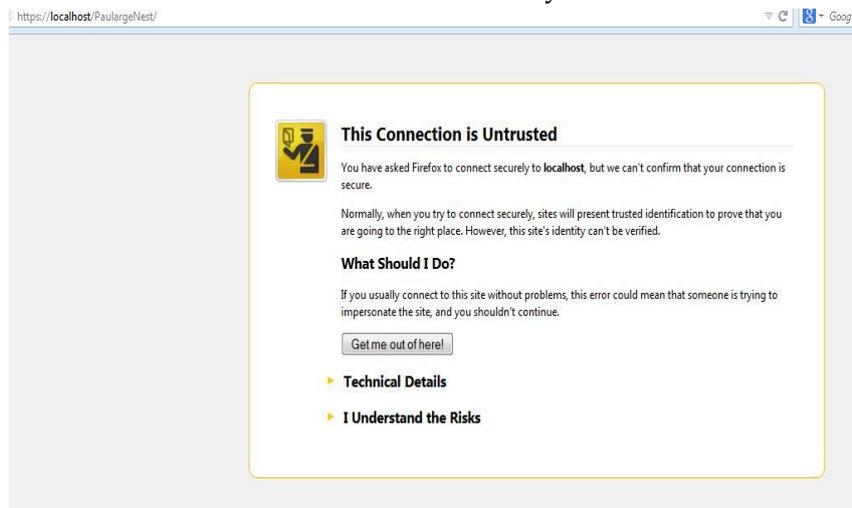


Figure 2.2 Warning page over an entrusted connection.

Most browsers accepts digital certificate that comes from sources that are trusted. Nevertheless, if a browser can't verify a digital certificate as coming from a trusted source it displays a warning and the users view the certificate as shown in figure 2.3. Then users can decide whether to establish a connection or to ignore, there are two types of a digital certificate which are Server certificate and Client certificate. Client certificate are issued to clients that are trustable so that identity can be confirm by computer server while in the server certificate are issued to servers and using a secure connection clients computer can connect to them.

Although, a certify authorities (CAs) must make sure the person or the company demanding for the certificate is a genuine person, before a secure connection can be established. This is done by a registration Authority (RA), once the confirmation has be done by RA.CA now issue the certificate, in this project secure connection was not implemented since it's not free. Examples of familiar certificate authorities that issue secure digital certificate are www.entrust.com, www.geotrust.com, www.verisign.com, etc.

2.3 Description of Server Side Language

Server side languages are used to provide interface to the client and to limit client access to database. Examples of server-side language are Python, Perl, ASP.NET, JSP and PHP. See the figure below for their description.

Language	Description
Python	It is used to develop different types of applications and web. In applications, it uses the file extension .py and it uses it together with apache web server.
Perl	It uses the file extension .pl , which was mainly developed for Unix command line for manipulation of text and that was later used to build web application.
ASP.NET	Uses the file extension .aspx that normally works with C# and visual.
JSP	Uses the .jsp file extension and are normally work with servlets that are written in java
PHP	It uses .php file extension, and they are normally use with Apache web server.

Table 1: Table description of server side language.

The technologies used in this project are HTML5, PHP, CSS3, JavaScript, MYSQL table creation, database excess, DOM access and Ajax. These are the technologies used to design and develop modern website, and tools

used are Net Beans, Firefox, XAMP web server and notepad++. I will attempt to describe these technologies in details.

2.4 XAMP

The acronym XAMP means (X signify "cross" which means cross platform. A signify Apache HTTP server, M signify MYSQL while the P signifies PHP and Perl). XAMPP are mostly known as easy tools that are use in making a website development easily accessible, it comes with the packages of other languages which makes users not to go through stress of installing them such as; PHP, MYSQL and Perl programming language. It also contains mercury mail server, PHP MyAdmin database administrator tool, FileZilla FTP server, and JSP server Tomcat. It makes it one of the most available adaptable and AMP packages used to run an application.

2.5 HTML

HTML5 means Hyper Text Mark-up language. The 5 in front refers to the current version. It is a building for all websites and it comprises of some set of codes typed into a text editor by a programmer. The text file is then saved as an html file and viewed through browsers like Internet Explorer, Mozilla Firefox, and Chrome etc. A file is the read by a browser and proceeds by translating the text into a visible form rendering the page. It depends on the platform the author had intended. Anything from a rudimentary text-editor to a powerful graphical editor can be use to create HTML pages.

There are several tags used in HTML, but the most used one are the following below.

<Header> this defines the header of a section or a document.

<Body> this defines the document body, and everything inside the webpage is enclosed with the body element.

<Section> this is a thematic grouping of content, typically proceeded by header, possibly with footer after. Sections can be nested inside of each other if needed and can be hold any amount of typical mark up.

<nav> this defines the navigation area, typically a list of links.

<Footer> this contains information about its section such the author of the site, links to related documents, copyrights data etc.

A sample HTML code looks like the following below.

```
<html>

<head>

<meta charset="utf-8">

<title>Hello world</title>

<meta name="author" content="Site Point">

</head>

</hml>
```

2.6 CSS3

CSS stands for Cascading Style Sheet. The 3 in front stands for currently used. The technology is used to style web pages to suit the needs of web developer the flexibility to develop content rich pages with very light weight codes. It also offers websites richer visual effects, better users interface and faster, cleaner pages.

At the moment, some advanced CSS3 features are not supported by some web browser especially old internet explorer; CSS3 influences almost everything in our web pages, because it determined how the web page is displayed.

A simple CSS3 code looks like this

```
*{
Margin: 0Px;
Padding: 0Px;
Margin: 0Px;
Header, section, footer, aside, nav, article, header { display:block;
{
{ body
Text-align: centre;
margin: 0;
```

```
padding:0;  
background: white;  
background: repeat-x;
```

2.7 PHP

PHP stands for Hypertext Pre-processors, it's a powerful program mainly used for server side scripting language, and for developing web. That means PHP is also used to create dynamic pages and it can be embedded into an HTML source code without being call in an outside file in order to process a data.

PHP can also run and execute data on its own with dynamic loading device; it can be lead into AOL server and Apache and it also run on Database interfaces such as Oracle and MYSQL and if the database is not supplemented, ODBC is an alternative. PHP comes with more than ninety-nine red made function that makes it a potent language. In making use of this function users needs to call it by name, for instance in using the print function below.

```
Print ("using a printing function");
```

If the parenthesis is not use PHP will read it as a constant, the parenthesis that you are referring to a function, if a function has been called earlier with a parenthesis, it might not require adding a parenthesis because print is a pseudo function. It can be written as follow:

```
Print "print doesn't require a parenthesis after it has been called";
```

The general syntax for a function is

```
Function function-name ([parameter  
[...]])  
{  
//  
Statement  
s}
```

2.8 JAVASCRIPT

Java script is a scripting language of server-side. JavaScript code is written into an HTML page to control advanced event handlings that is

beyond the capabilities of HTML and CSS with JavaScript web developers, among other things add interactivity to web pages for instance, when you click a button on a web page, an action is performed by the browsers, usually the result of some hidden JavaScript code underneath.

A simple JavaScript code to print hello world is;

```
<script
  type="text/javascript">

  <!-- to hide script contents from old
  browsers    document.write("Hello
  World!")
  // end hiding contents from old browsers -->

</script
```

2.8.1 DATABASE

Its server that compiles on different types of platform, which makes it easier to be use for both huge and small application, the data in MYSQL is usually store in a database table; database is valuable in storing data in different categories to form a table. The main terms in MySQL are table, row and column and the SQL command that are mostly used on database operation are Alter, Create, Delete, Drop, Insert, Update and Rename. Some keywords and SQL are case sensitive for example Create CreAte all and, CREATE perform the same operation. However, it is always advisable to use a capital letters for the sake of clarification. The table below shows the description of each keyword.

Alter	it has parameters of database and table and it is used to alter the database or a table
Rename	It's the SQL command used in renaming a table.
Drop	it is used to delete a database or a table
Update	it's an expression with a data for updating an existing record
Create	It has parameters of a database and a table, and it is used to create a database and a table.

Table 2: Description most common keyword used in database

2.8.2 Comparison table between existing social networks

The table below shows basic comparison between some social networks that are related to social network that can be link to education e.g. classmate.com, teach street, italki.com, twitter, Google+ and face book figure (3) shows several basic comparison between existing social networks.

Descriptions	Friends function	Social niche features.	Features that helps student work in partnersh ip on a group assignme nt	Video confere ncing among group of user.	notification on mobile app that shows you are close to a friend	Col-labora-tive docu-ment using a cloud service.	Map show ing your frien d posit ion.
Face book	YES	NO	NO	NO	NO	NO	YE S
Teach street	YES	NO	NO	NO	NO	NO	NO
Twitter	YES	NO	NO	NO	NO	NO	NO
Classmate	NO	NO	NO	NO	NO	NO	NO
Italkati ve	YES	NO	NO	NO	NO	NO	NO

Table 3: Comparison table of some existing social network.

Table (3) shows some basic features of online social networking website that are associated with college social network. However, face book has one of the largest features among other social network, but it has not yet fulfil all the features shown in figure (3), face book has not yet implement the features that support Video conferencing between two or more users, it does not support collaborating document using a cloud service, and a notification on a mobile phone that tells you whenever you are close to a friend, similar to I talkative, teach street, classmate and twitter. These features are later discussed on chapter 4.

3 Methodology / Model

This Chapter describes the method used in achieving the aim of this project, the methods used are questionnaire Survey, and paper based prototype and agile motivation.

3.1 Initial literary study

After going through some online tutorials, articles, and some textbooks I found a good approach to develop the aim of my project, and through the previous web project I took on my previous course e.g. Advanced Computer Engineering where I design something similar to social network, that gives motivation to go advance on web programming.

3.2 Survey

The initial survey data was congregated by questionnaire survey link sent to my university students. Each link contains 12 question, where by the respondent has to select the best answer he/she desire, and the aim of the survey was to identify new features that should be include in the next generation of social networks that would make people transit from today's social networks. The aim is also to identify criticism that people have towards today's social network that should be address in a new social network. It will give me an insight of what to implement and to what to disregard on campus social network. However, the survey will only be sent to only college and university student as an objective option and as a free text question.

Finally, the survey will also help me to focus on an individual target niche application for social network.

3.3 Paper based prototyping

A paper base prototype is the method used in user process design for a platform that meets user's expectation. It's a process that involve a rough sketching and drawing of some interface to use as a work.

3.4 Usability evaluation method

This is a kind of method for accessing the invention of an application measures, this requires some set of users to test and inspect the usability

as part of the development or to examine if the main objective has been achieve.

4 Result

In addition to the explanation of survey discussed in chapter 3, the main objectives of this project is to identify new features that should be include to the old existing social network, in a way that, it will add a positive impact on college student, and that will also induce users to migrate from the existing system to a new system. However, a review was introduced by the means of a questionnaire that students answered, in the summary of the survey twenty-two registries was identify, with thirteen completing the survey, and 9 being ask on physical appearances while none of the participant answered the open text question.

Furthermore, after evaluating the outcomes of the student functionality on the survey and the review of the table shown in figure 3, it shows that a new system will add a huge different to the existing one, and this will make users to migrate from the existing system to the new one.

These are the list of data and summary of the result gotten from the survey; the order of the data is listed below. To calculate the average score the formula used was

$$\text{Average score} = \text{Mean} - \text{opinion score}$$

0 Not interested at all =P0

1 Minimally interested=P1

2Interested =P2

3 Very interested = P3

$$\text{Average score} = 0P_0 + 1P_1 + 2P_2 + 3P_3$$

While average score is the addition of all the number giving from the list divided by size of the list, and opinion score is the result gotten from the users that answer the survey. The orders of grade are not interested at all, minimally interested, interested and very interested.

4.1 Map showing friend's location

This is an exist feature on some of the social networks of today; face book has a full facility of displaying location of users. This more alike existing features; some social network has implemented this feature. The average score gotten was 1, 2.

4.2 Solutions on how to fix confidential issues

This is a kind of features that can be use to block or ignore any type of distraction from email notifications or any form of invitations. This also has a lower respond from the users; it has an average score of 2, 1.

4.3 Video Conferencing

It is also known as video conference; video conferencing is carry out by telecommunication technologies where audio and video is transmitted simultaneously by two or more location. It has the highest average score in the questionnaire survey I create; and most people would like to see it on a social networking website. I intend to implement this feature on this project. Though, there are three types of video conferencing in which each types has its own requirement; Many-to-many-conference, One-to-many and One-to-one.

But, after testing RAT (robust audio tool) and VIC (video tool) configuration, which are the higher resolution for transmitting video, with the combination of DVTS (Digital video transport System) use in transmitting application for higher video transmission resolution and RAT. I discovered there are many requirements to perform the video conference operation; therefore I decided to use an online template just to demonstrate the importance of video conference on a college social network. Figure 3.1 shows an example of video conferencing.

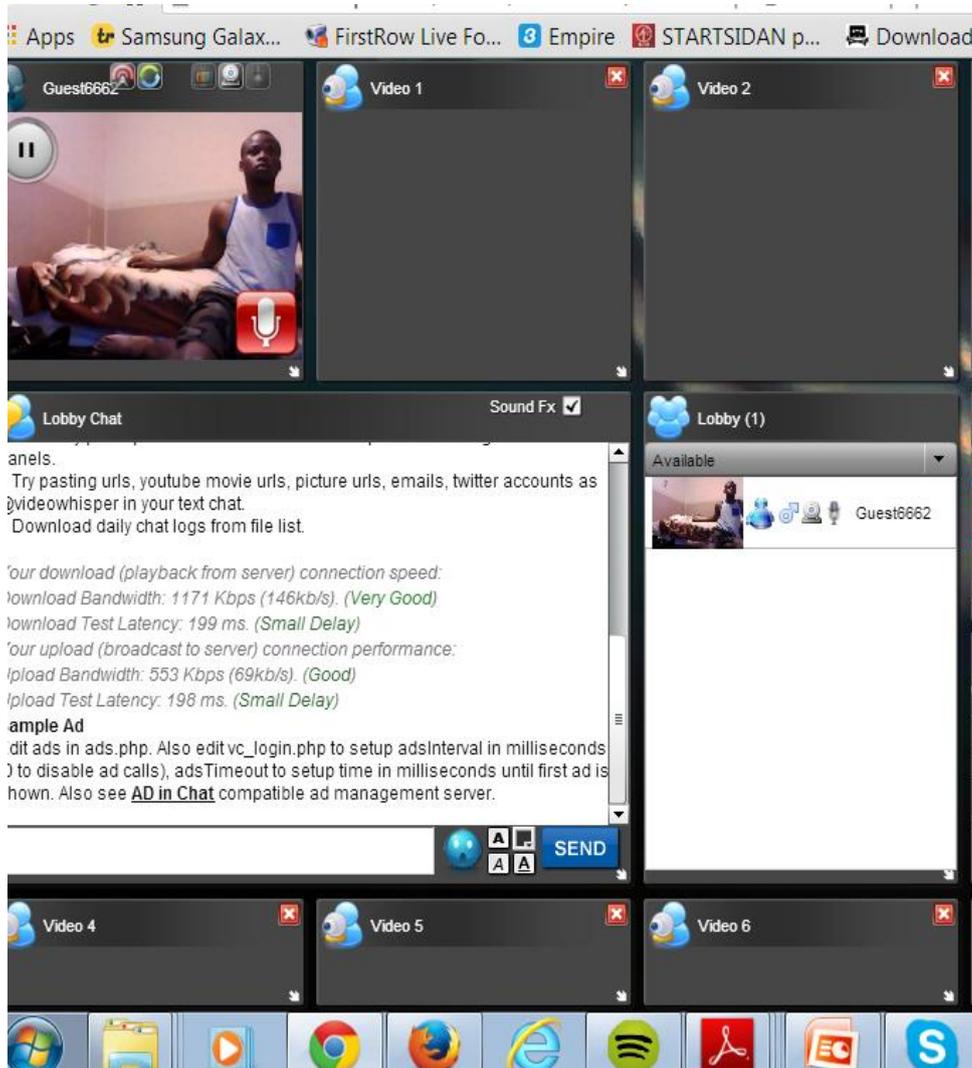


Figure 3: A screen print of a video conferencing demo

4.4 A notification on mobile app that shows you are close to a friend.

This is in form of an alert that display the location of a friend automatically on a mobile phone, it should show how far or closer you are to a friend. This is an interesting feature that has not been implement in any social network which I would have love to implement but it would be too burdensome for me to handle due to the limited time. It has an average score 2, 2 derived by using the formula above.

4.5 A collaborative document using a cloud service.

This can be in form of a group discussion, where users can upload videos, articles, benefactor textbook and many more.

This is an internet-based computing feature that allows remote server of large group to be network together and permit data –processing tasks sharing. Respondents agreed to this, it also has a high average score from the respondent, with an average score of 2, 0.

4.6 A separate social niche only for fellow students you study with.

This is kind of a small group/forum with searching service that student can easily upload videos, audios and an article. This is an important feature for social network that has to do with college student and it's also one the feature that people would like to have. Hence, this was implemented on this project. It has an average score of 1, 87.

4.7 Features that helps student work in partnership on a group assignment.

This can be in form of a group discussion, where users can upload videos, articles, benefactor textbook and many more.

4.8 Summary

In accordance to all list of features listed in above subclasses, video conferencing has a higher request from all the students that participated in the survey which has never been implemented on any social website; it has an average score of (2, 67) by using the average mean formula, follow by a separate social niche only for fellow students you study with that has an average score (1, 87), this is also a very important feature that will add a huge different on a college social network.

Furthermore, Solution on how to fix a confidential issue, in a situation where you are getting too much distraction in a form of invitation and email notification that teacher, parent and government may eavesdrop the communication is also accepted by 70% percent of those that participated on the survey, it has a very important functionality on a social network website that would make a difference on a college social net-

work. Since it's a social network that has to do with student, a feature that helps student work in a partnership on a group assignment also has a high request by the participant of the survey, it has an average score of (1, 90), follow by a collaborative document using a cloud service and map showing a friends position with an average score of (1, 65), has the lowest request by the respondents of the survey.

However, all the features are very important features that will make a good impact on a college social network. However, the questionnaire survey has presented the major sections on where to focus attention on. Over 75 percentages of the student that participate on the survey wants a medium where audio and video can be transmitted live simultaneously and a medium where student can have partnership on a group assignment. After all, the table showed on table 3 shows that no existing social network has implemented the features.

Furthermore, as examine on chapter 2, video conferencing, collaborative document with a cloud service, separate social niche only for fellow student you are studying with, a notification on a mobile app that you are closer to a friend and a feature that help student to collaborate on a group assignment, table 3 shows the similarities between some well-known social networks that are related to college motion. On social network such as; face book, teach street, classmate, twitter and I talkative.

The features came out with No on the specific area shown on table 3, means that this feature have not been implemented on the old system of college social networking website. However, through these missing features, students will have precision with each other and leading to more effective ideas, production, and collaboration on their works.

Productive things like assignment, literature, notes and other study related things are shared with classmate or anyone among users can have access to develop any information found from any other sources. In order to modify, add and view content etc. The features will collaborative facilitate sharing of knowledge and it will make people to have study valuable interaction with one another on social network.

However, I decide to implement a feature that student can have partnership on group assignment, a medium where audio and video can be

transmitted live simultaneously, separate social niche only for fellow students you study with and some basic social network features.

5 Design

Firstly, after the user's evaluation on the survey created about what is mostly important to be added into a college social network, which will make student to migrate from the existing one to new one. However, all the features in the survey have been put in consideration during the process but I have only chosen to implement video conferencing, feature that helps student work in partnership on a group assignment, a separate niche only for fellow students you study with, and some basic exist feature of social networking, like chatting, sending of private messages, uploading of videos and images and news feed for the student. I have choose to implement this features, because of the criticism that students have towards today's networks that should be addressed in new social network, and because features like video conferencing and a separate niche only for fellow students you study with, are yet to be implemented on social network website.

These are one of the non-exist features shown on table 3 and on the questionnaire survey presented on chapter 4, and these features will make student to interact with one another more effectively through online social platform, and through this platform study will not be base on only classroom.

The website is cleanly built website for campus social network website, with easy navigation links without any unwarranted graphics distraction. The overall layout contains features for comfortable viewing most especially on a smart phone, tablet and android phones. It will also run uniformly on a Smartphone, tablet and android phones. Figure (4) shows some symbol diagram used in creating MYSQL, and figure (5) shows the process of how user request is being sent from external DBMS to internal for a full access of database.

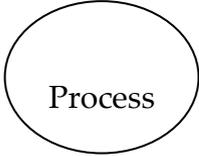
	<p>Process shows a manipulation of dataflow within a system.</p>
	<p>A database is a holding place for information within the system. It is represented by an open-ended narrow rectangle.</p>
	<p>External entities are outside the system but they are either supply input data into the system or use the system output.</p>
	<p>Dataflow shows flow of information from source to destination of a dataflow represented by a line.</p>

Table 4: Table of ERs symbols used

Table 4 shows the process of how users request is being passed to DMBS to organize the collection of data.

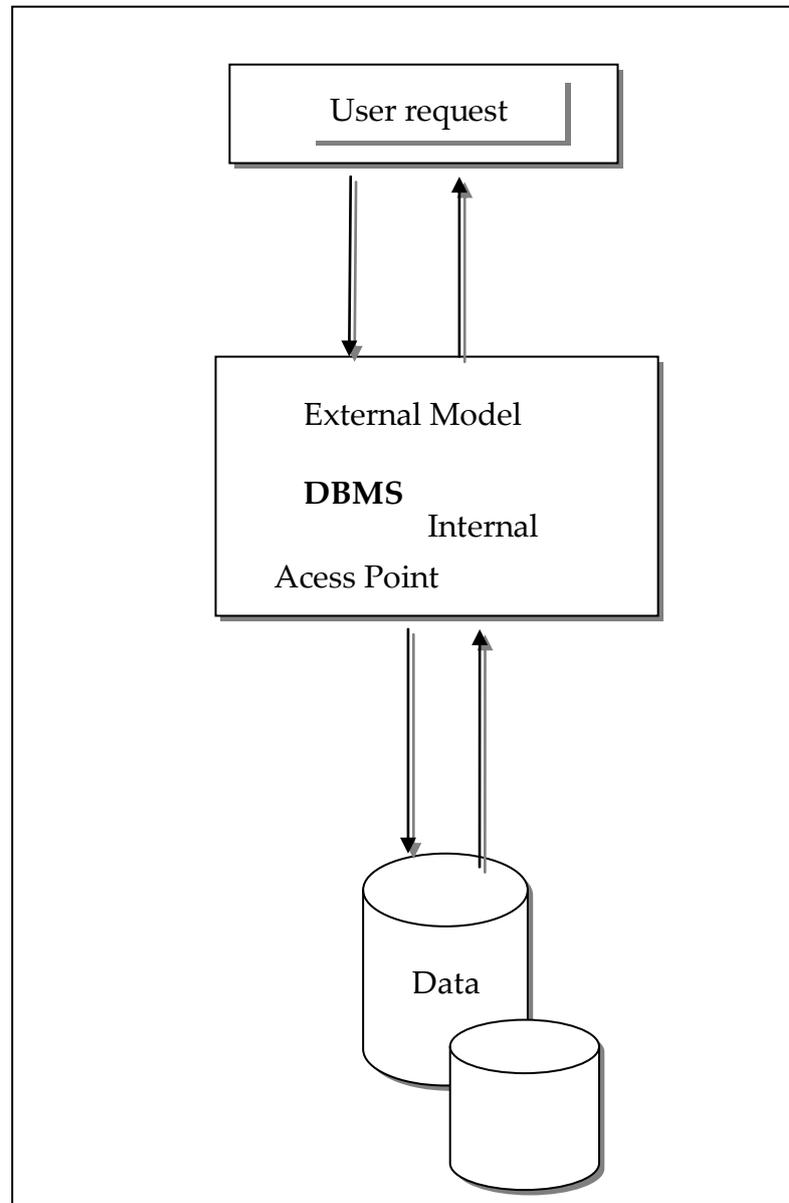


Figure 4: External model DBMS

Diagram of the entities and the attributes used

The diagram below shows all the interconnection of entities and attributes used in the DBMS from the home page (index) to the user's profile.

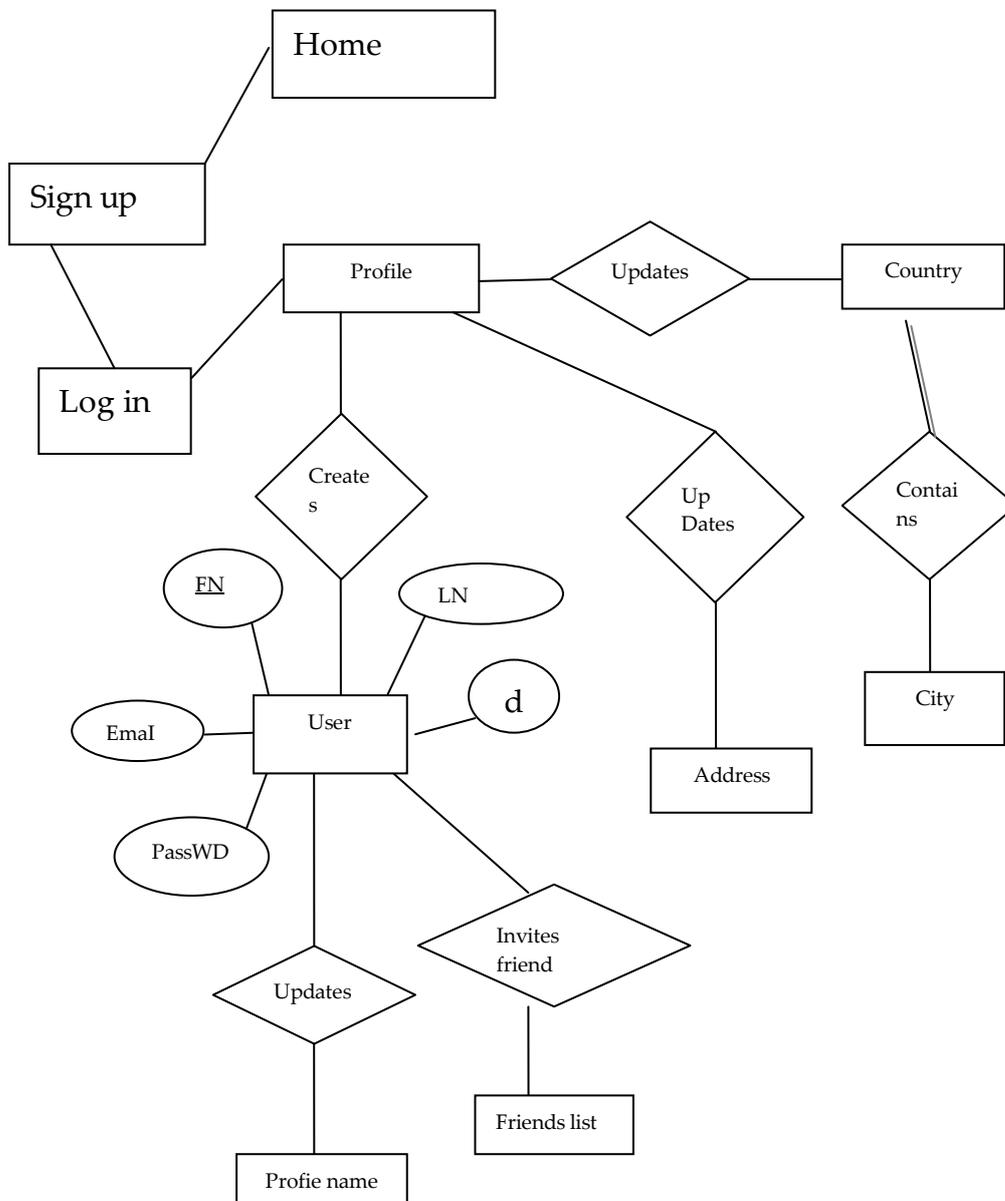


Figure 5: Entity and attribute relation design.

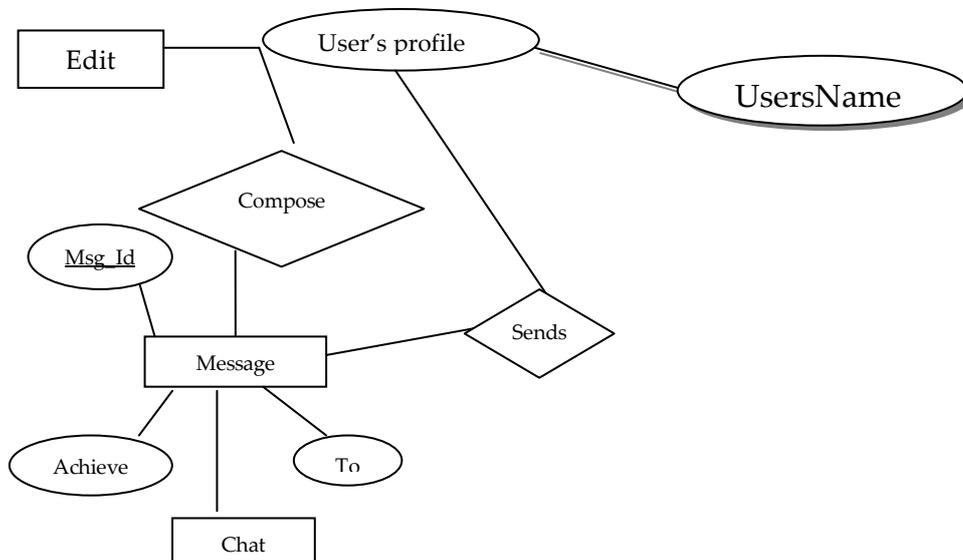


Figure 5.1 Entity and attribute connection profit edit.

This shows the relation between the user's profile and the entity used in constructing the profile page in the data model.

6 Implementation

This chapter shows the description and the implementation of this project.

6.1 Un-trusted request

The figure (6) shows a web page that transfer data over server and a client, this is the first page that display when users tries to open campus Reps on a host. This is was because a campus rep doesn't have a valid digital certificate as discussed on chapter 3.

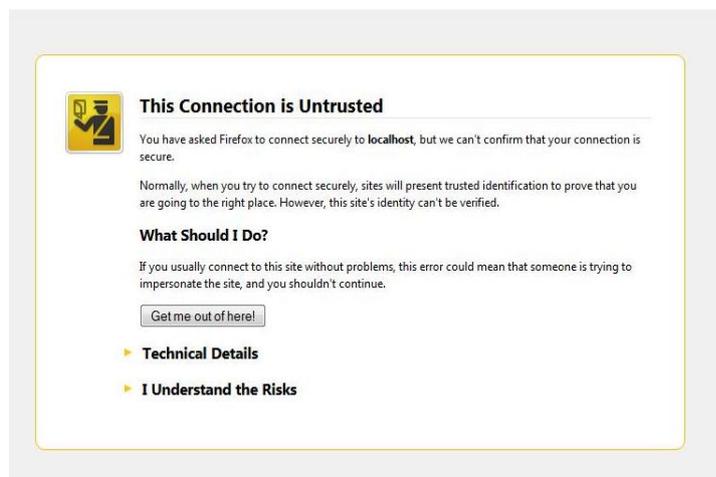


Figure 6: Example entrusted request.

Homepage

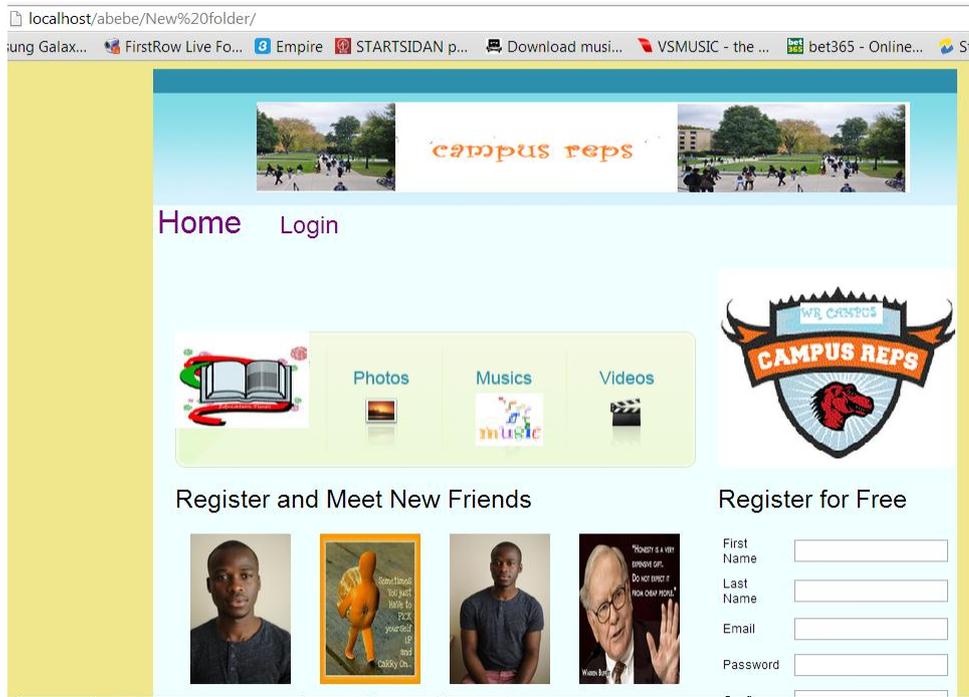


Figure 7: Diagram of the homepage.

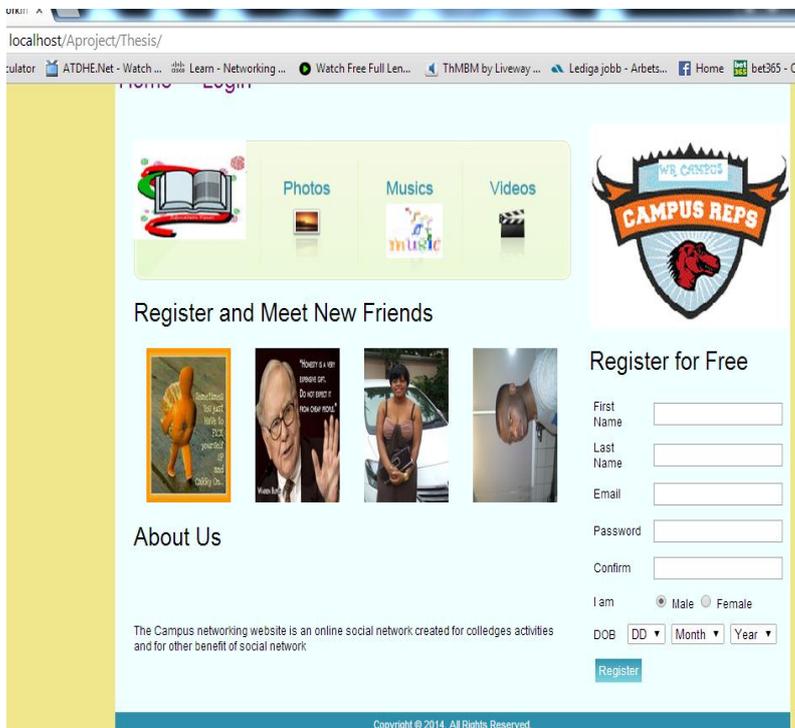


Figure 7.1: Diagram of the homepage.

This the home page of the project website, this gives a simple message to the users following for what they must do in order to give full access to the website. The page also shows the name of the social website (Campus rep), pictures of some registered user along with sign up form. As shown in the (figure 6) and figure (7), each time the page is refresh it display a random pictures of the user, the login page navigation which later leads to where user can login after sign up for a complete access to the web and to log in.

It displays a simple form that enables all new users to join and to partake in the social network by choosing a unique username and password. It is where Ajax and JavaScript are implemented in this project, it runs a check in the database to look if a longing username has been chosen or not. If a desired username has been taken it gives an output of "The username already exist" or the" username is available "it also initialize a function that makes the code to works with various browsers by creating an Ajax request function.



The image shows a registration form titled "Register for Free" for "CAMPUS REPS". At the top is a logo with a red horse head and the text "WE CAN'T GO CAMPUS REPS". The form fields are: First Name, Last Name, Email, Password, and Confirm. Below these are radio buttons for "I am" (Male/Female) and dropdown menus for "DOB" (DD, Month, Year). A "Register" button is at the bottom.

Figure 7.2: Register form

After a user input, based on the username and password the users entered. If the username has already been used; it displays an error response telling the users that it has been used or in the opposite side that is available. It also checks if all the fields were entered.

Log in Page

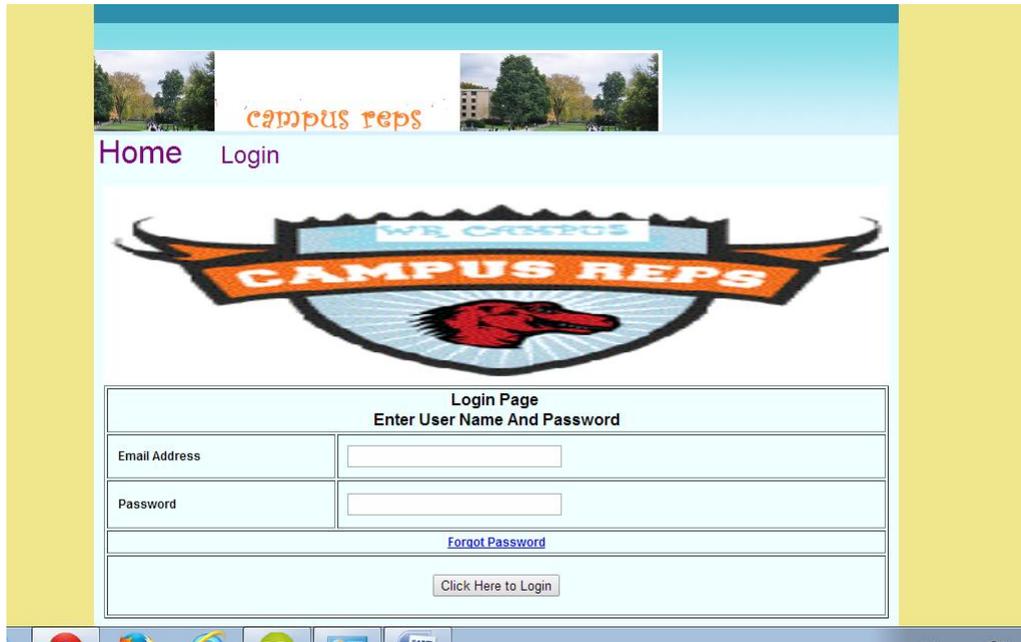


Figure 7.3: Screen print of the log in page

This page displays a simple Html login form. The login form contains functions for checking of some basic errors that users input. In addition it also uses a String sanitizes to check user's availability before My SQL database query and a nav where a password can be recover.



Figure 8: Screen print of the log in page when users enter a wrong password.

At any time, the users enter a password and username login. The function checks the availability of the password and username in the database. If not found, it displays an error message of invalid Username and password respectively.



Figure 8.1: This shows how password can be recover

After the user's account has been created and verify, they can now log in to the main project website. where it display current user's that log into the Homepage, along with the members of (campus reps) website members, user's friends, private and public messages, where the user's can edit his or her profile and to the full access of the project.

Once a user has successfully created an account and successfully logging in, the next thing they might want to do is to create their profile. Which can be done in the (figure 9), the program check if texts are entered? If the texts are enter. the post function include a security check to confirm if the user's exist in the database and no hacking attempt can be done before the text is finally inserted to the database .which the text will be details and about me of the current user's.

Home profile

The figure below display the full project nav and the users who has already become a member, In members page users will be able to view other members that have signed up for the social network website and decide whether to add them as friend or delete them if they have already add them as friend, users can view all other members and have full access to the project by uploading pictures, videos, articles and participating in question and answer created by other members of the social network.



Figure 9: Home page of the current user

The figure (see figure 9) shows a prospective users profile along with the user's profile picture and how to update his/her profile by entering the necessary details.

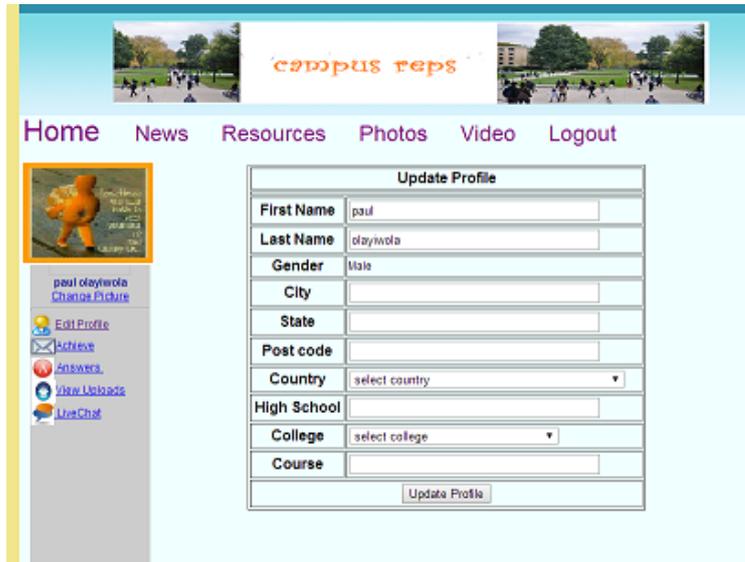


Figure 10: show how the current users can edit his/her profile

Current Users

The view all display all the friends of the current users, on each time user click on the name of the users, it display their profile information i.e. city, college, name and so on.



Figure11: Screen print of some registered users and where friend can recommend users.

Friends

This page shows information about a single user, it shows user's mutual friend, users followers along with whom the users is following.



Figure 12: Screen print profile page of a single student.



Figure 13: Screen print profile page of a single student.

Message

On the left side of the main homepage there are four Nav. Message page comprises of two icons private and live chat, and friends can communicate in public and private. Private messages are seen by only two friends and public messages can be seen by everybody. The program begins by checking if text has been enter, if so it save the time and the date of which the message was posted.

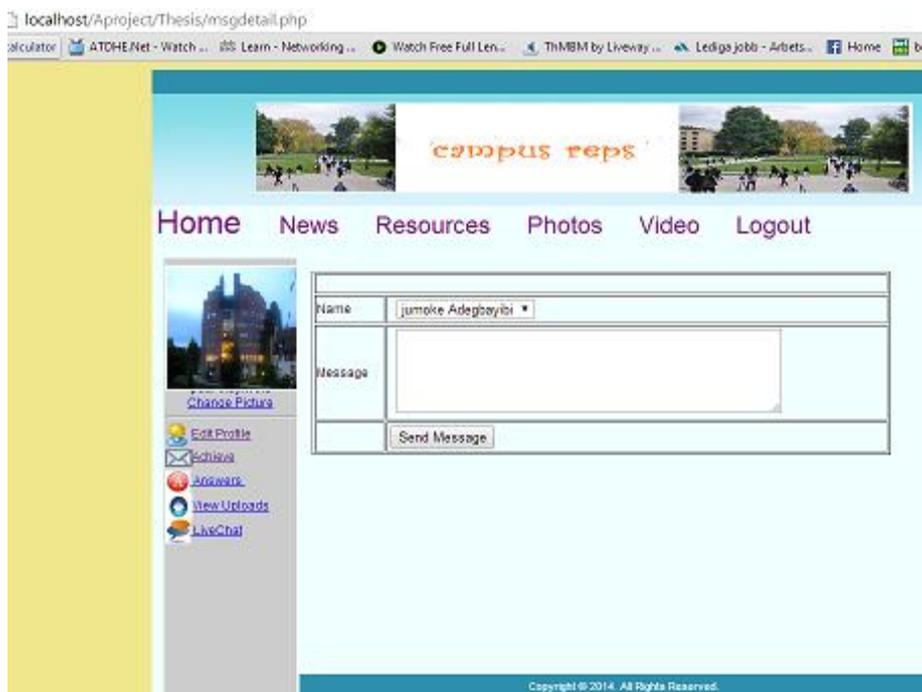


Figure 13: Shows how private message is sent from one friend to another.

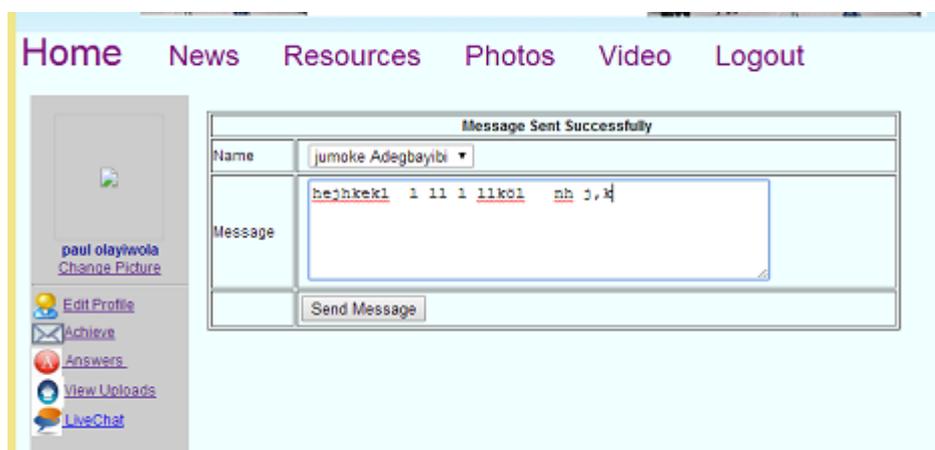


Figure 13.1: Shows how private message is sent from one friend to another.

News

Figure 14 is created with HTML marquee functions, it display the department and campus news for all the users.



Figure 14: News

Resources

The resources page displays the lists of some other useful nav as shown on figure 15, upload articles is where all registered users can upload any articles of their choice and share it among others, video streaming nav shows a page where users can upload any video of their choice while useful academics lead to other useful academics link.



Figure 15: resources page

Article upload

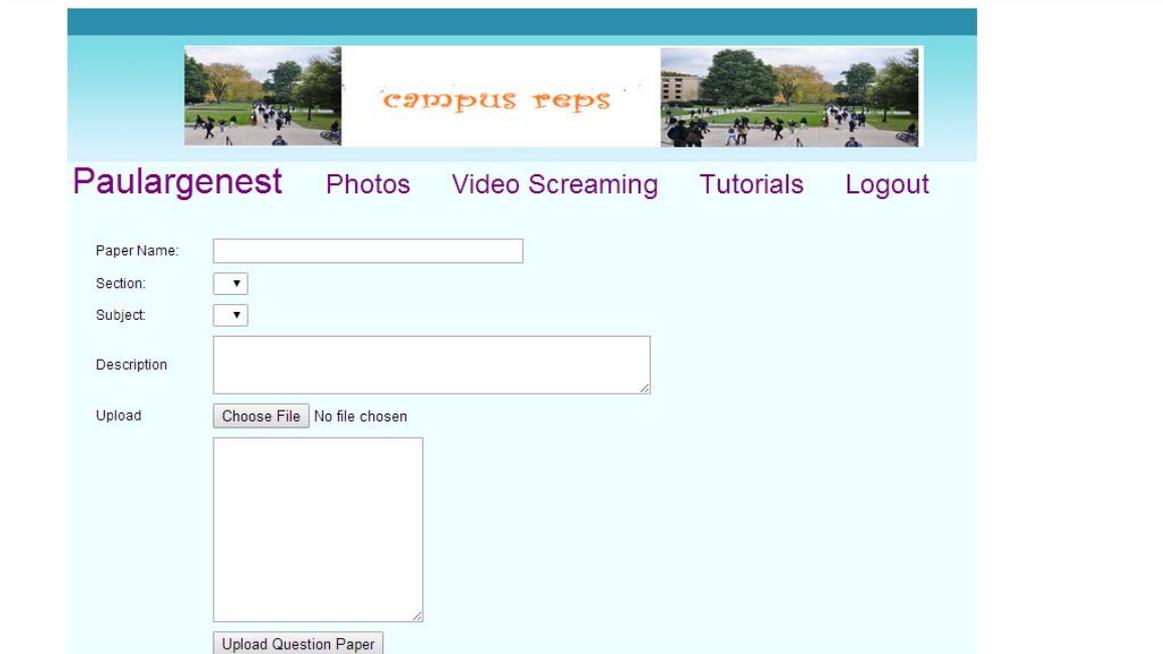


Figure 16: A page where student can upload and share article

This is a sample demo of the video conferencing that student would like to see in a social network, the code was actually not written by me. In other for me to perform Video conferencing with PHP it requires some advance sort of settings with RTMP (Real Time Messaging Protocol) see (flash.flowplayer.org/plugins/streaming/rtmp.html).



Figure 16.1: video conferencing demo

Photo

The figure below shows where image can be uploading on each user members profile along with delete a button. Each field has to be filling completely in order for to upload an image successfully.

Image Name	Image Category	Description	Uploaded Image	Delete
girl	hjhjh	hcj		

Figure 16:2 uploading of video page

Video

Video is one of the medium that can be use to pass knowledge to their follow college student, each members can upload video as much as they want.



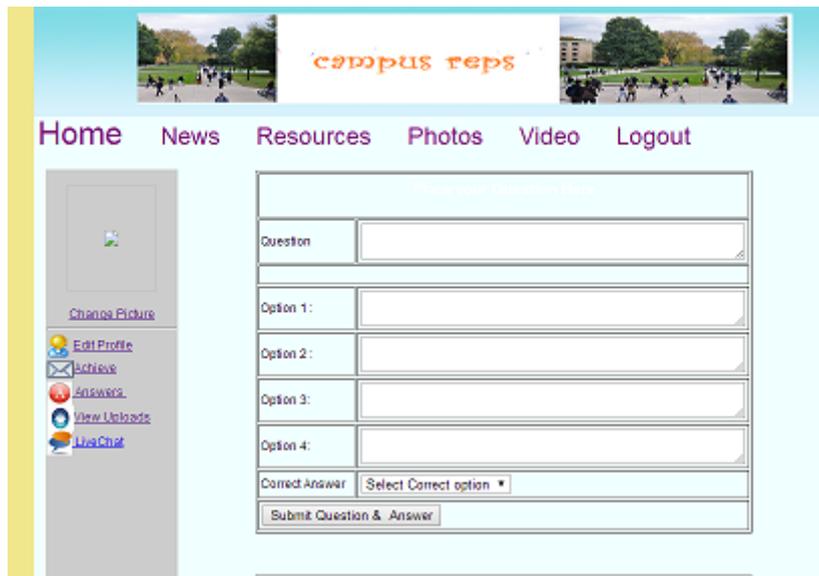
16.3: video streaming



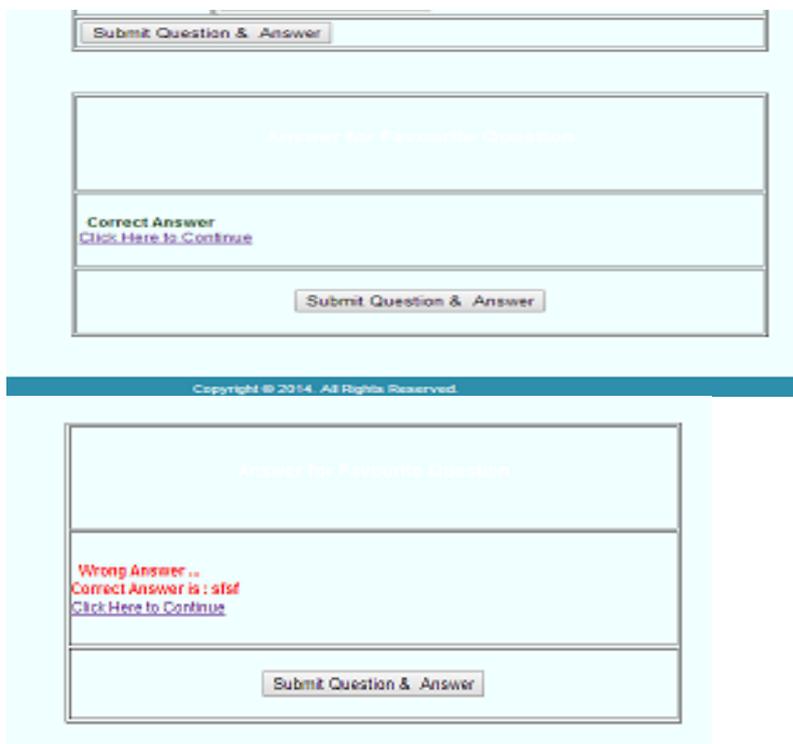
17: Uploading of Question and Answer

This feature helps student work in partnership on a group assignment, overall it enables users to share knowledge with one another by uploading question and answer of their choice, and each and answer that is

enter is save into the database, after the answer has been specified by the author.



17.1: Niche application



17.3 Feedback result for the niche feature.

Finally, the log out page is the page that closes all the sessions and where all the data and cookies are deleted, the page also ask the user click a link to direct them back t the home page.

7 Conclusions / Discussion

The project aim is designing a social networking website for college and conducting a survey to know the features that are missing in the old system of college social network, which will make users to transit from the old system.

In pragmatic study of the sum of 57 invitations were sent to student and friends to participate in the study and the method used was the questionnaire. The usable results were 22 while 9 being asked on a physical appearance.

The result of the questionnaire survey has been discussed and presented on chapter 4. The result and table shows there are some features missing in today's social network, and proper integration of this feature will help effectively in a way that will benefit student, with the implementation of the features integrated in this report. Student will be able to interact more effectively through e-learning platform, discussion and collaborating with one another with other learning activities discussed on chapter 4. This will be best accomplished through college social network, and study will not be limited to only classroom.

Furthermore, table 3 shows that some features are missing in the system of existing social network that relate to academic, and the questionnaire survey shown on chapter 4 also gives an accurate review on the kind of features student would like to be implement on college social network. Figure 11 and 12 shows features that will make student to keep up their existing relationship, and to reach out to the ones they have not been privilege to meet.

However, the project achieved the goals and the result on chapter 6 shows the stated goals, figure 16 and figure 17.1 presents some of the goals, figure 16 shows a platform where student can share study materials, books, article and so on. Figure 16.1 shows a figure of a video conferencing, which the survey review as the most important feature that student would like to see on social network, because of the advantage of visual collaboration and location barrier in terms of group works.

From this project, I have come to understand the importance of engaging in critical project analysis before designs and implementation. I initially considered developing a website that encompasses all social website functionality that was asked in the survey, such as creating map that shows your friend position, a notification on mobile app that shows you are close to a friend, a collaborative document using a cloud service and posting and commenting but late discovered that it would be too cumbersome to handle due to the limited time.

Though, building a social networking website is very challenging especially if the developer is working on a broad project for the first time. The challenge stems largely from the technical requirement and the developer's experience involved, since social network is used in our everyday life most especially for student. However, this project has presented all the basic functionalities that can keep up campus student on a study platform.

In conclusion, I think proper integration social network into education, will be well-organized in a beneficiary way for college student. However, Video conferencing, a separate social niche only for fellow students you study with and a student that helps student in partnership on a group assignment are unique features that will make social network more effective for college students.

Generally, in future I think social network can be use as a platform of sharing knowledge, a survey performed by a student shows 85 percent of undergraduates are using social networking websites , and the result still shows there is a higher tendency of increasing every year, overall it was a nice experience.

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