ONLINE REPOSITORY SYSTEM FOR PETAKOM CLUB

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ONLINE REPOSITORY SYSTEM FOR PETAKOM CLUB

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This thesis is submitted as partial fulfillment of the requirements

For the award of the degree of

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SUPERVISOR'S DECLARATION

I hereby declare that I have read this thesis and in my opinion this thesis is adequate in terms of scope and quality for the award of the Bachelor of Computer Science (Software Engineering).

Signature : ……..

Supervisor : MDM ROSLINA ABDUL HAMID

Date : 11 JUNE 2012

STUDENT'S DECLARATION

I declare that this thesis entitled *"Online Repository System For PETAKOM CLUB"* is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : ……..

Name : IRZAD BIN HAIRANI

Date : 11 JUNE 2012

DEDICATION

This thesis is dedicated to my parents.

For their endless love, support and encouragement

ACKNOWLEDGMENT

First and foremost, I have to thank to my parents for their love and support throughout my life. Thank you both for giving me strength to reach for the stars and chase my dreams. My sisters and my liltle brother deserve my wholehearted thanks as well.

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My sincere thanks go to all my members of the Software Engineering student, who helped me in many ways and made me stay at UMP pleasant and unforgettable.

I acknowledge my sincere indebtedness and gratitude to my parents for their love, dream and sacrifice throughout my life. I cannot find the appropriate words that could properly describe my appreciation for their devotion, support and faith in my ability to attain my goals. This thesis is only a beginning of my journey.

ABSTRACT

This thesis presents the development of a web-based system customized to serve the need of a PETAKOM club of FSKKP in UMP. The system is designed to replace a paper-based process that gradually become unmanageable due to the increasing large volume of data. Features of the new system include online recording of forms, database query functions, activities update, members update, manage and monitor the progress data and activities included in Petakom. The design principles and introduce a functional component diagram for the system. The system is implemented on Windows platform using open source software such as PHP, MySQL, and Apache. Performance of the developed system is assessed practically and an efficient, and user friendly operation is demonstrated.

ABSTRAK

Tesis ini membentangkan pembangunan sistem berasaskan web yang khas untuk kelab PETAKOM FSKKP di UMP. Sistem ini direka bentuk untuk menggantikan proses berasaskan kertas yang secara beransur-ansur menjadi tidak terurus kerana jumlah data yang besar yang semakin meningkat. Ciri-ciri sistem baru termasuk rakaman dalam talian bentuk, fungsi permintaan pangkalan data, update aktiviti, update ahli, mengurus dan memantau data kemajuan dan aktiviti yang termasuk dalam Petakom. Prinsip-prinsip reka bentuk dan memperkenalkan gambarajah komponen berfungsi untuk sistem. Sistem ini dilaksanakan di atas platform Windows yang menggunakan perisian sumber terbuka seperti PHP, MySQL, dan Apache. Prestasi sistem maju ditaksir praktikal dan yang cekap, dan operasi mesra pengguna ditunjukkan.

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CHAPTER 1

INTRODUCTION

This chapter briefly discuss on the overview of this research. It contains five sections. The first section is introduction; follow by the problem statement. Next are the objectives where the project's goal is determined. After that are the scopes of the system and lastly is the thesis organization which briefly describes the structure of this thesis.

1.1 BACKGROUND OF STUDY

Petakom is an organization or a club that is handled by students of FSKKP and is launched for all students of FSKKP in UMP. [1] The purpose of Petakom is to keep, maintain, learn, and teach their members to make a good relationship among people and also among themselves. Petakom is also helping people in optimizing their leadership talent and building a healthy mind and moral to create a harmonious environment. On the other hand, Petakom are also giving opportunity to the people and also their members to get involved in healthy activities such as helping people, launching healthy campaign, and so on.

Management Information System (MIS), explanation about how to manage the information in systematic and use the computerized to keep or save the related data for PETAKOM Club. MIS can be improved by understanding the behavioral processes by

which humans process information and make choices. [2] The importance of maintaining a consistent approach to the development, use, and review of MIS systems within UMP Research Centre must be an ongoing concern of both admin and user. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization**.**

An online repository is a storage location that is located on the web from which packages may be retrieved and installed on a computer or a server.[3] An Online repository is designed to store information of data in the web and is accessed online by its user. [4] Many web publishers and other organizations maintain their servers or systems on the Internet for this purpose. Administrators of such repositories typically provide a package management system, tools intended to search for, install and otherwise manipulate web or data packages from the repositories.

1.2 PROBLEM OF STATEMENT

Petakom Club is currently using manual registration form for their current and new members such as using paper instead of electronically. They store their document in ring file and search their member by file to file sorted by alphabetical order.

This system developed to manage Petakom in handling data gathering. The system lets the user to insert or update new data information to the database such as member information and new member registration online in an efficient way. With online registration, admin can register as new member and it will be much easier for them to register at anytime and anywhere they want.

This system also allows administrator to manage all tasks especially for adding,update, monitoring and deleting data of Petakom members in the database. With this, all of the data are easier to handle and managed only by administrator. All of the searching part are done efficiently using name, and does not require a ring file just to search member’s information.

By using this system, member's record cannot be deleted from the database. It should be kept for reporting purposes. Administrator would not have to use the log book to create a report. Current members shall have their status active. While the members that had resigned or terminated, their status should be resigned or terminated. Members Petakom Club are allowed to access their information anytime and anywhere that have internet connection. They also can upload and download file to or from this system so it will be easier for members in Petakom club to share information each other

1.3 OBJECTIVES

i. To computerize the manual process of information management for PETAKOM club as online database system.
ii. To create paperless working environment to reduce using a paper instead of traditional working type such as using a log book.
iii. To produce the Software Engineering documentation of Software Requirement Specification (SRS), Software Design Description (SDD) as system development references.

1.4 SCOPE

The major scope of project is for the member of Petakom Club. The members of Petakom Club will be able to check their membership status, accessed online, upload and download file, search for other members, and edit their membership information. Only students who have joined in as members can accessed the system. Any activities or feedback will be made or informed by administrator to the members.

1.5 ORGANIZATION OF THESIS

This thesis consists of six (6) chapters. Chapter 1: Introduction- This chapter is the introduction about the project that had been be developed. It consists of background, problem statement, objective, scope, and thesis organization. Chapter 2: Literature Review- This chapter explained the case study of the project. These are 2 general structures of this study, the technique that has been used and the former system that already created. Chapter 3: Methodology- This chapter discussed more close on the overall work flow in the development of the project. It justified the technique along with the equipment and the software. Chapter 4: Implementation- This chapter discuss on how Hire-Car System had been developed in development environment structurally and logically. Chapter 5: Result and Discussion- This chapter discussed on the results or output produced as expected and the result is further discussed. Chapter 6: Conclusion. This chapter concludes about the entire system.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter discusses about Management Information System (MIS), explanation about how to manage the information in systematic and use the computerized to keep or save the related data for PETAKOM Club. It also discusses about the current MIS uses technology.

2.2 STUDY ON EXISTING SYSTEM

2.2.1 Mudah.my

Mudah.my is a website that provides information and advertisement of the user that want to selling their product online. The service allows anyone to buy and sell in his or her region conveniently in a very simple manner [1]. This website has a simple interface and reliability. Figure below shows some of the interface of this website.

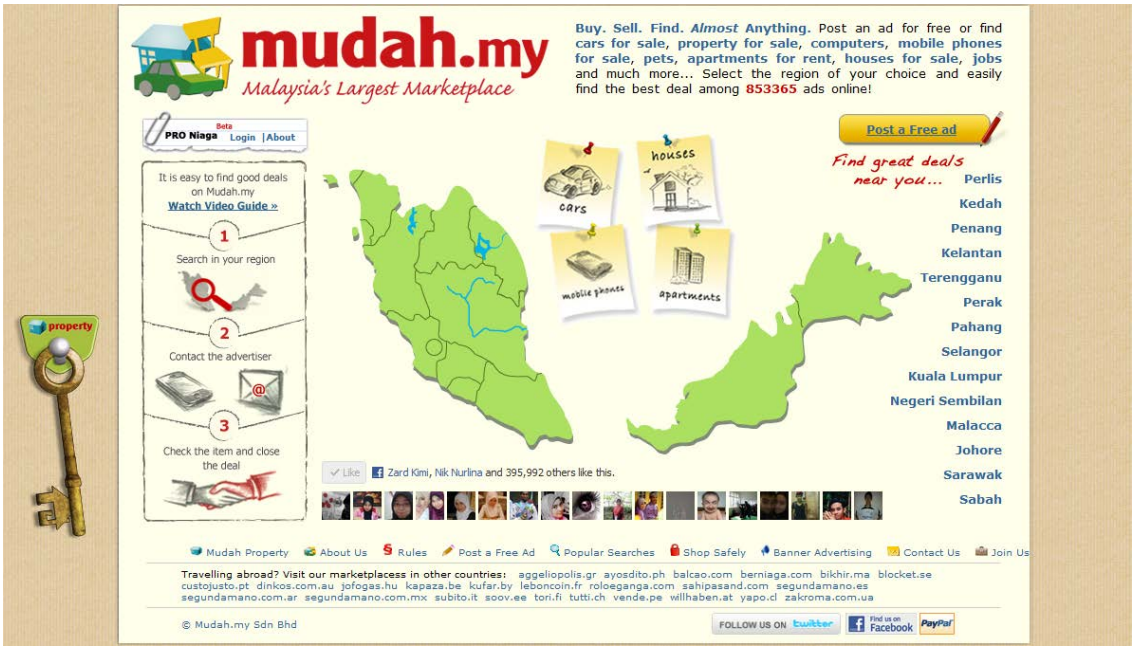


Figure 2.1: View of homepages for Mudah.my website.

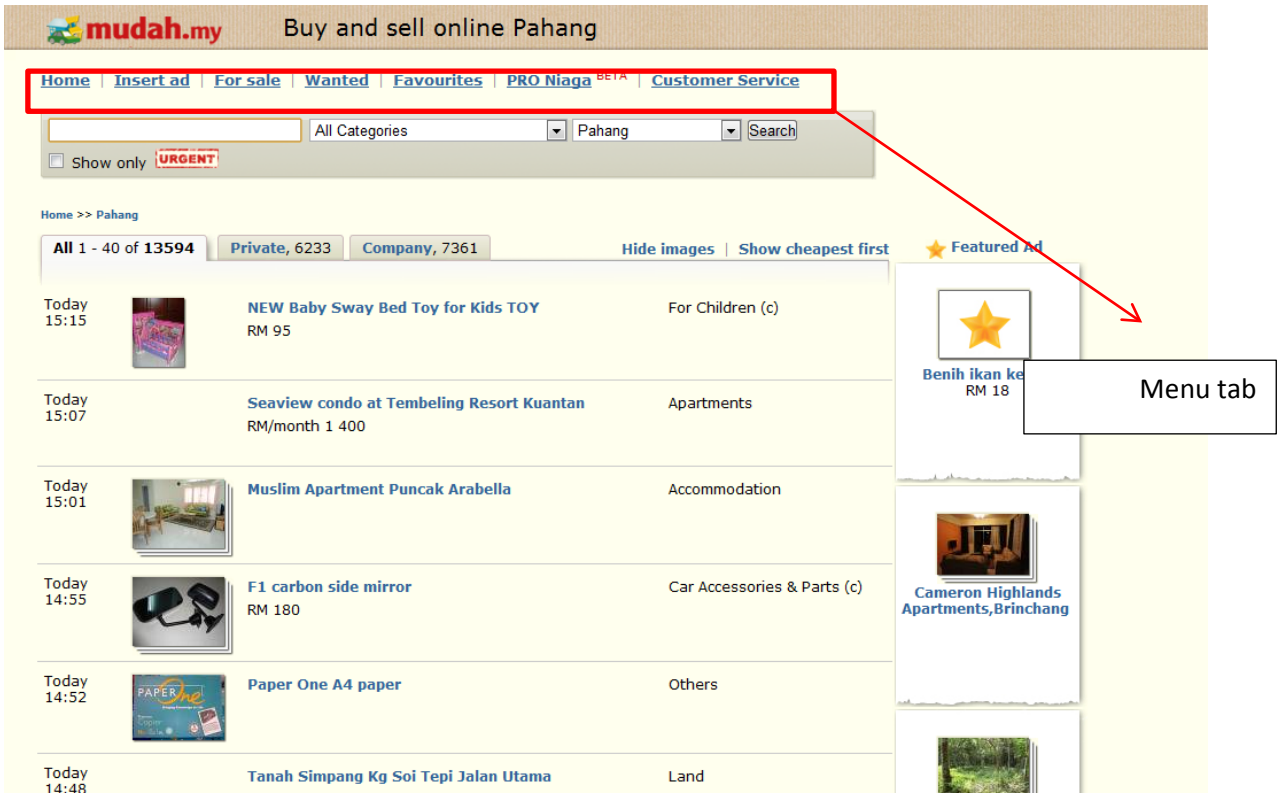


Figure 2.2 : View content and menu tab of the websites

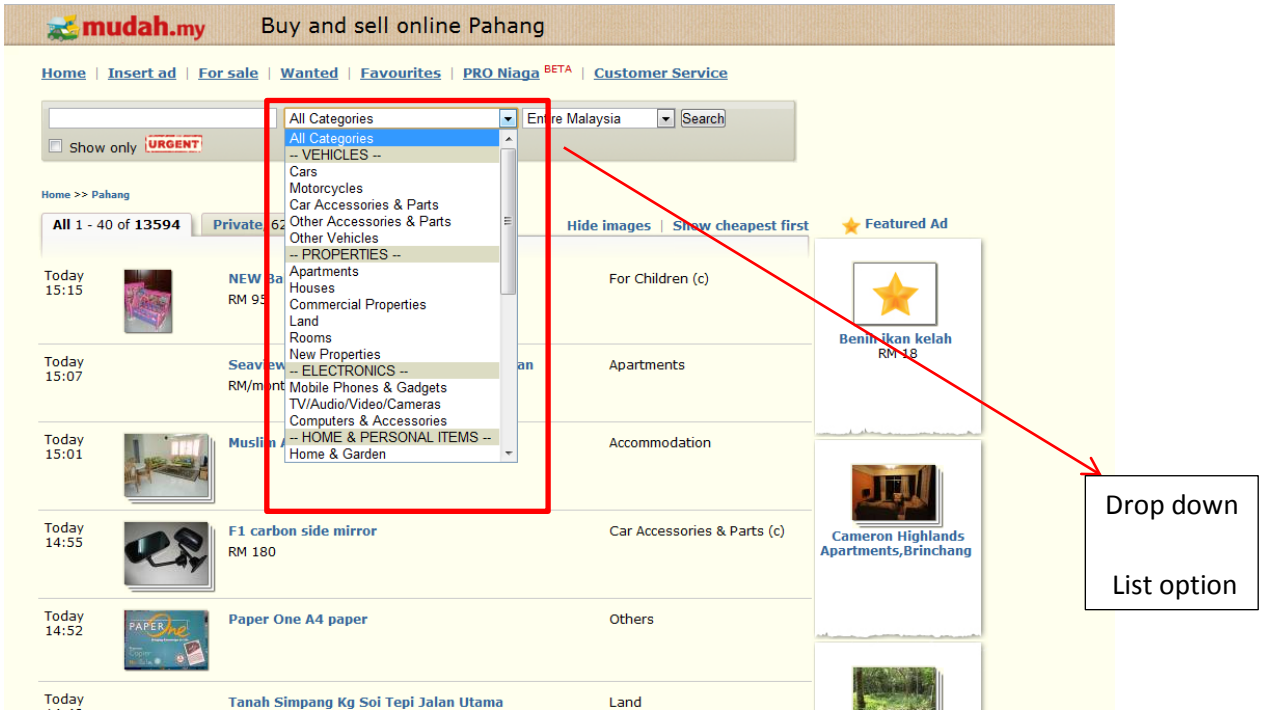


Figure 2.3 View of drop down list for searching option in this Mudah.my websites.

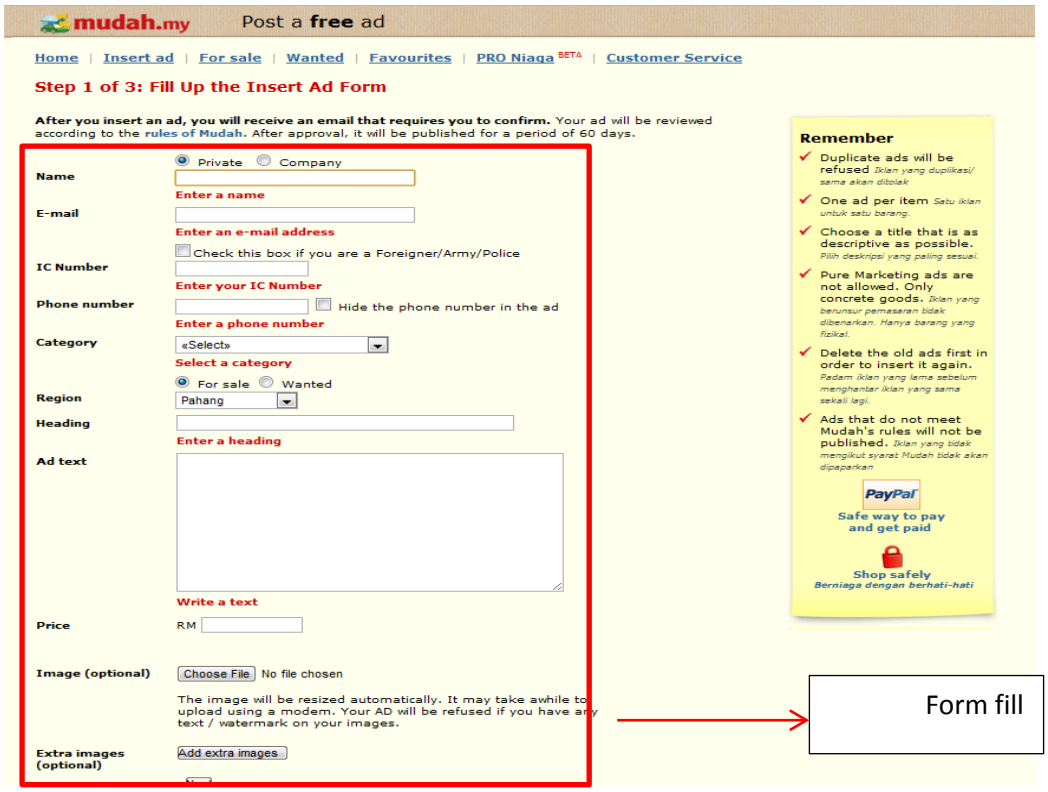


Figure 2.4: View of the form to register the new user in this websites.

2.2.2 Hardwarezone Malaysia

This websites provides latest information of technology. And place to share information in their forum in this websites. [2] Figure below show some interface from this websites.

Figure 2.5: View of the homepage for the hardwarezone Malaysia.

Figure 2.6: View of registration form for this websites

Figure 2.7: View of the menu control of this websites

2.2.3 District Government Tando Allahyar

This website is a revolutionary concept designed and developed by the National Reconstruction Bureau, Government of Pakistan, to work as an aid in support of the Local Governments under the Devolution Plan. [3] Figure below shows some of the interface of this websites.

Figure 2.8: Website homepage of district Tando Allahyar

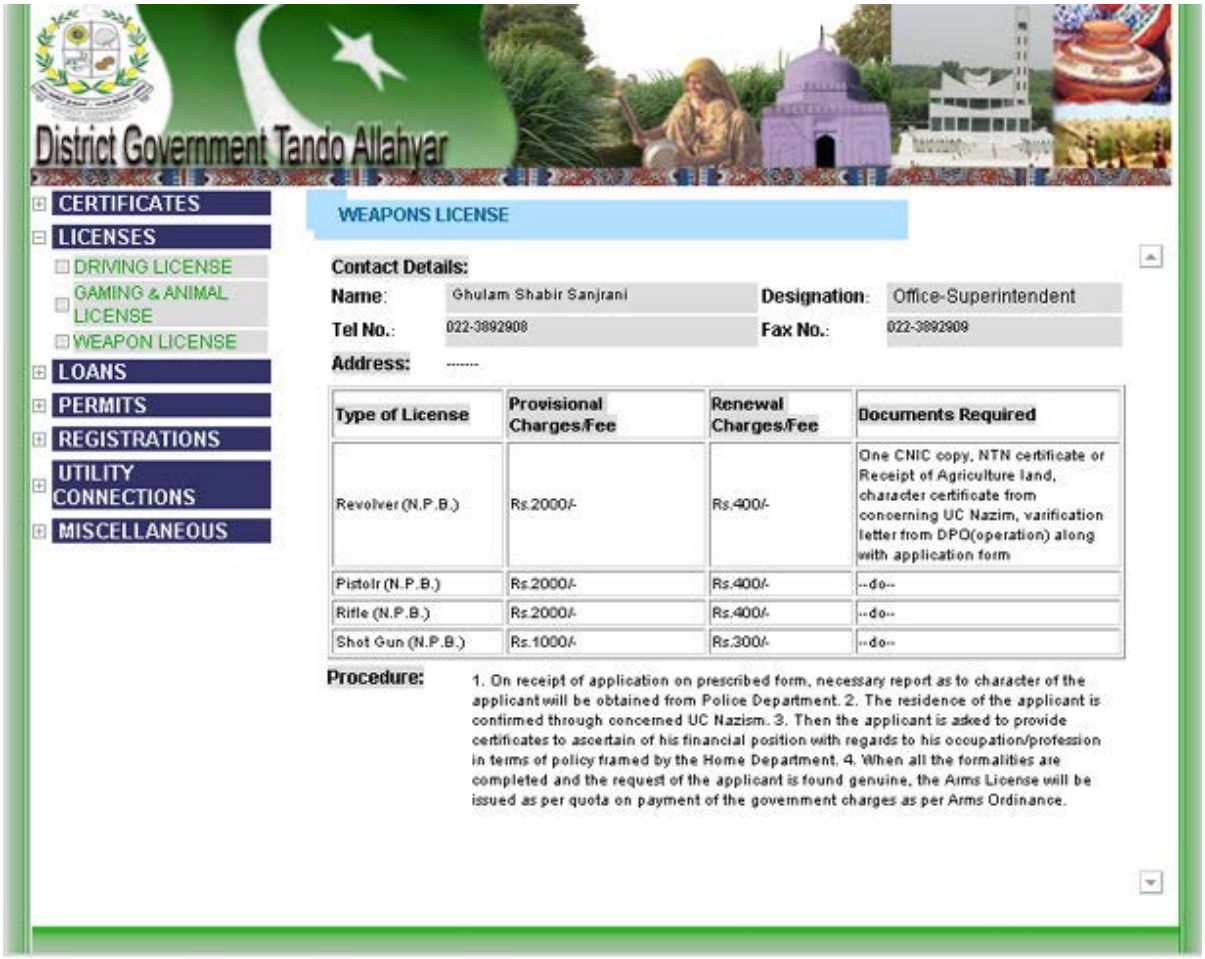


Figure 2.9: Website information on obtaining weapon license

2.2.4 Comparison Between 3 Websites

In the website of mudah.my, there is providing the_service allows anyone to buy and sell in his or her region conveniently in a very simple manner. [4] For the unregistered user they also can view the advertisement in homepage. For the user that has been registered, they can advertise the picture of product that they want to sell. They do not have a comment or discussion post at their advertisement. This may be difficult for user that want ask question. This website is easy to use for everyone because this website is simple and really convenient to use. For the hardwarezone.my website, there are providing a lot of latest information. The information always been updated frequently every day. This website is good where this website providing a place such as forum to make a discussion in this websites. For the last website is District Government Tando Allayar. This website I take from the journal by Danial Aziz, Syed Adnan Shah and Deeba Gilani of National Reconstruction Information Management System (NRIMS). This management system revolutionary concept designed and developed by the National Reconstruction Bureau, Government of Pakistan, to work as an aid in support of the Local Governments under the Devolution Plan. All of the comparison as table below:

Table 2.1 : Comparison 3 websites between mudah.my, hardwarezone.com.my and district Government Tando Allahyar

Criteria	Mudah.my	Hardwarezone.com.my	District Government Tando Allahyar
First impression			
URL (Intuitive) - The URL needs to be short and simple.	Simple and easy to remember	Quite long.	Long and difficult to remember for the first time user
Download time- Loading time for homepage	Very fast when loading the home page	Fast when loading the home page	Slow when loading the homepage
Look and feel – Readability	Simple but too much content in one page	Simple and nice web page	Complicated so many menu
Are users made to register to get into site? - Forcing users to subscribe or register.	No. unregistered user can view the content but cannot upload their advertisement in the website	Yes. They need to register to view some of the content	No, no need to register, otherwise if they need further details information
Navigation			
Ease of use - The navigation system	Easy to use	Easy to use	Quite difficult
Site map - Site maps are easy to understand	This website provides breadcrumbs for the user.	This website provides easy breadcrumbs for the user.	Not provide breadcrumbs
Return to Home Page from any page	Yes	Yes	Yes
Internal search engine	Yes. Very fast searching	Yes.	Yes
Using Frames	Yes	Yes	Yes
Content			
Useful information	Yes	Yes	No
Level of interaction	Good	Good	Good
Use of valuable graphics	Yes. Image can be upload in the website	No. Image cannot be upload in this websites	No. Image cannot be upload in this websites

Use of valuable animation	No	Yes	No
Up-To-Date	Contents are up-to-date in every minutes	Contents are consistent up-to-date	Not so consistent
Available in Multiple Languages	No	No	Yes
Terms and conditions	YES This website provide it	Yes This website provide it	Yes This website provide it
FAQ's	Yes	YES	YES
BROWSER COMPATIBILITY	YES all the web browser can browse this website	YES all the web browser can browse this website	YES all the web browser can browse this website
User satisfaction			
Robustness/reliability	Yes	Yes	Yes
Order/request tracking online	No	Yes	Yes
Does the cookie fill the form?	Yes	Yes	Yes
OTHER USEFUL INFORMATION			
Contact details for person	Yes	No	Yes

2.3 TECHNIQUES

This section will review on the current technique on the web application, information management system, online repository, Software tools, programming language, database language, web server and Methodology.

2.3.1 Web-based applications

Web-based is a web application that is accessed over a network such as internet or intranet. According to Tien N. Nguyen, Ethan V. Munson, and Cheng Thao, Millions of Web sites have been developed in the past ten years. A lot of efforts and time have been spent to maintain.Web-based applications in the daily basis. Small Websites with less than dozen HTML pages can easily be developed and maintained. [6] Many organizations have failed or have struggled to avoid major failures in developing large-scaled and high-quality Web-based applications. The main reason is that many Web developers commonly use ad hoc development processes that lack rigor, systematic techniques, sound methodologies, and quality assurance and may pay little attention to issues such as requirements analysis, quality, performance evaluation, configuration management, maintainability, and scalability

New technique of Web-based applications is a collaboration, decision support and knowledge management tools. A range of these applications and the necessity for their web integration is now coming from e-business experiences back into organization management. For example, whether a portal is used or other means of providing web integration of applications, this integration of applications “has taken a central position in the business world” and now goes by the term EAI (Enterprise Application Integration).[7]

2.3.2 Management information systems

Computer-based system provides managers with the tools for organizing, evaluating and efficiently running their departments. In order to provide past, present and prediction information, an MIS can include software that helps in decision making, data resources such as databases, the hardware resources of a system, decision support systems, people management and project management applications, and any computerized processes that enable the department to run efficiently. [8]

According to the Steve Hansen. With the increasing use of web interfaces across organisations' corporate and supporting applications, has come a dramatic increase in the number of users in the resulting systems. Along with this trend to connect more and more of an organization's staff and clients together via web interfaces, has been the rise of user-centric design models which place user requirements higher on the priorities list in system design and also places user satisfaction as a major performance and quality indicator. Other than that The management information system involves many data, and so there are many tables in the database.[9]

In addition, the use of the web in capturing and making use of knowledge management ideas, especially with the help of collaborative tools is being experimented with and implemented in many organisations.[10] MIS consists of software, hardware, data and users elements, designed to meet specific planning and organizational goals. [11] Access to information is the basic requirement for any planning, development or management objective, without which further advancement is impossible.

2.4 DEVELOPMENT METHODOLOGY

2.4.1 Software Development Life Cycle

The Software Development Life Cycle is a step-by-step process involved in the development of a software product. It is also denoted as Software Development process in certain parts of the world. The whole process is generally classified into a set of steps and a specific operation will be carried out in each of the steps. [12]

2.4.2 Types of software development life cycle

2.4.2.1 Software Development Life Cycle – WATERFALL

This is the most common and classic of life cycle models, also referred to as a linear-sequential life cycle model as show in figure 2.10. It is very simple to understand and use. In a waterfall model, each phase must be completed in its entirety before the next phase can begin. At the end of each phase, a review takes place to determine if the project is on the right path and whether or not to continue or discard the project. Phases do not overlap in a waterfall model. [13]. For the strengths and weaknesses is show in table 2.2 below:

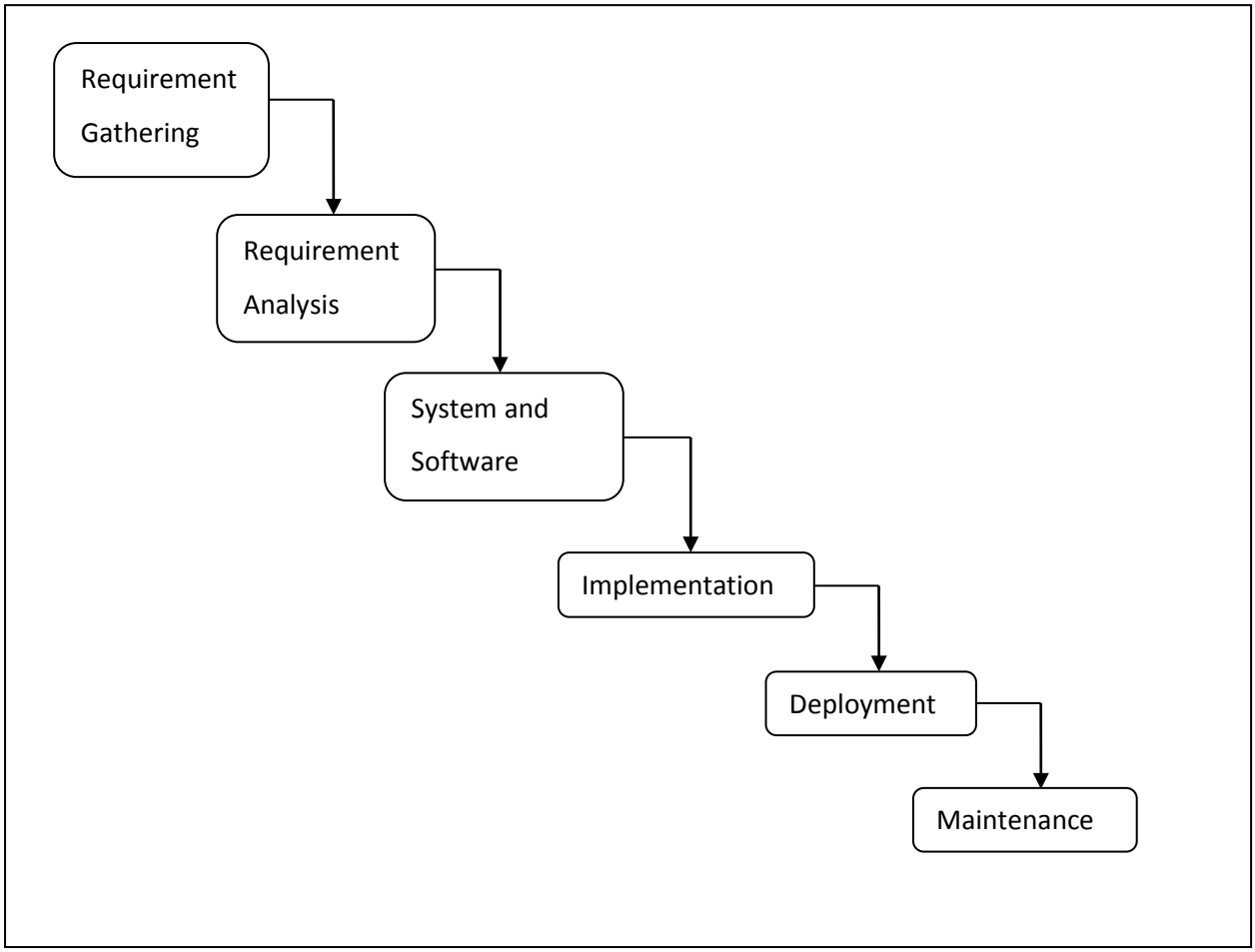


Figure 2.10 : Diagram Software Development Life Cycle – WATERFALL

Table 2.2: Strengths and Weaknesses of Waterfall model of the software development life cycle.[14]

	Strengths	Weaknesses
Waterfall	• More flexibility • Continuity between the phases, documentation can be substantially reduced. • Implementation of easy areas does not need to wait for the hard ones.	• Activities performed in parallel are subject to miscommunication and mistaken assumptions. • Unforeseen interdependencies can create problems.

2.4.2.2 Rapid Application Development

Rapid application development (RAD) is a software development methodology that uses minimal planning in favor of rapid prototyping. The "planning" of software developed using RAD is interleaved with writing the software itself. [15]The lack of extensive pre-planning generally allows software to be written much faster, and makes it easier to change requirements. There are a number of rapid development software methodologies under the name of agile development such as Extreme Programming, Crystal methods, Lean Developments, Scrum and Adaptive Software Development [16]. Table below show advantages and disadvantages of RAD:

Table 2.3: Advantages and Disadvantages of RAD [17]

ADVANTAGES	DISADVANTAGES
• It increases speed of developing software.	• Unknown cost of product.
• Re-usability of components helps to speed up development.	• Difficult to commit the time required for success of the RAD process.
• It increases the quality.	• Short iteration may not add enough functionality.
• It incorporates short development cycles.	• Early RAD systems faces reduced scalability occurs because a RAD developed application starts as a prototype and evolves into a finished application.

2.5 DEVELOPMENT TOOLS

2.5.1 Adobe Dreamweaver

Adobe Dreamweaver is a proprietary web authoring application that allows users to preview websites natively in a preview pane or in locally installed web browsers. It provides transfer and synchronization features, the ability to find and replace lines of text or code by search terms and regular expressions across the entire site, and a templating feature that allows single-source update of shared code and layout across entire sites without server-side includes or scripting.[18] The behaviors panel also enables use of basic JavaScript without any coding knowledge, and integration with Adobe's Spry Ajax framework offers easy access to dynamically-generated content and interfaces. At this time, the JavaScript program in this page will verify the correctness of the submitted information, including whether necessary information is filled, whether constrained conditions are met and so on [19].

2.5.2 Expression Web

Expression Web Designer is Microsoft's new tool for building and enhancing Web sites with design elements such as cascading style sheets, personalized task panes and compatibility with non-Microsoft Web browsers like Firefox. Web sites built using Expression Web Designer can support the XML, ASP.NET and XHTML data types. The product complements both Microsoft's existing application development tool, Visual Studio 2005, and the tools in the upcoming .NET 3.0, which allows for better collaboration among the designers and developers who are building an application. [20]

2.6 DATABASE

2.6.1 MySQL

MySQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation.

- MySQL is a database management system.

A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

- MySQL is a relational database management system.
- The MySQL Database Server is very fast, reliable, and easy to use.

MySQL Server was originally developed to handle large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Although under constant development, MySQL Server today offers a rich and useful set of functions. Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet. [22]

2.6.2 Oracle

An Oracle database is a collection of data treated as a unit. The purpose of a database is to store and retrieve related information. A database server is the key to solving the problems of information management. In general, a server reliably manages a large amount of data in a multiuser environment so that many users can concurrently access the same data. All this is accomplished while delivering high performance. A database server also prevents unauthorized access and provides efficient solutions for failure recovery.[23]

Oracle Database is the first database designed for enterprise grid computing, the most flexible and cost effective way to manage information and applications. Enterprise grid computing creates large pools of industry-standard, modular storage and servers. With this architecture, each new system can be rapidly provisioned from the pool of components. There is no need for peak workloads, because capacity can be easily added or reallocated from the resource pools as needed.

Table 2.4 : Comparison between MySQL and Oracle. [24]

Features/Functionality	MySQL	Oracle
Strengths	Price/Performance Great performance when applications leverage architecture.	Aircraft carrier database capable of running large OLTP and VLDBs.
Database Products	Enterprise – supported, more stable. Community (free) – more leading edge.	Enterprise ($$$$) Standard ($$) Standard One ($) Express (free) – up to 4GB
Application Perspective	Web applications often don't leverage database server functionality. Web apps more concerned with fast reads.	More you do in the database the more you will love Oracle with compiled PL/SQL, XML, APEX, Java, etc.
Application Domains	Web (MySQL excels) Data Warehouse Gaming Small/medium OLTP environments	Medium/Large OLTP and enterprise applications. Oracle excels in large business applications Medium/Large data warehouse
Development Environments	1) PHP 2) Java 3) Ruby on Rails 4) .NET 5) Perl	1) Java 2) .NET 3) APEX 4) Ruby on Rails 5) PHP
Export/Import	Easy, very basic.	More features.
Data Dictionary (catalog)	Information_schema and mysql database schemas offer basic metadata.	Data dictionary offers lots of detailed information for tuning. Oracle starting to charge for use of new metadata structures.

2.7 WEB SERVER

2.7.1 Apache

Apache, otherwise known as Apache HTTP Server, is an established standard in the online distribution of website services, which gave the initial boost for the expansion of the World Wide Web. It is an open-source web server platform, which guarantees the online availability of the majority of the websites active today. The server is aimed at serving a great deal of widely popular modern web platforms/operating systems such as Unix, Windows, Linux, Solaris, Novell NetWare, FreeBSD, Mac OS X, Microsoft Windows, OS/2, etc.

The Apache server has been developed by an open source community Apache Software Foundation, whose members are constantly adding new useful functionalities, with the sole purpose of providing a secure and extensible server platform that ensures HTTP service delivery in accordance with the current HTTP standards.

The Apache server has been the most popular web server on the Internet since April 1996. It is by no means considered a platform criterion for the development and evaluation of other successful web servers. Table below shows advantages of Apache approach

Table 2.5: The advantages of Apache approach [25]

Advantages
1. Advanced features of Apache Server: Apache server is the web server is the most sophisticated features in the market.
2. Flexible: Apache Server can be customized very easily due to its modular structure.
3. Easy to administrate: The administration is one of the main elements of all kind of servers. Apache Server has a list of configuration files that are well documented with all the necessary information in order you can read and inform yourself about all the features and settings of the Apache Server.
4. Apache Web Server is Open: Apache is an extensible tool. The API of Apache Server belongs to the Open Source Community.
5. Apache Web Server is Efficient: The efficient of Apache is a great virtue for a web server. Apache Server has accomplished what not all the web servers can do. All the efforts in get an Apache Server more optimized have been really successful.
6. Portability and Support: Apache offers a wonderful portability that can be installed and operated under multiple platforms with a high level of portability.

2.7.2 Xampp

XAMPP is a variation of the commonly used acronym LAMP which stands for Linux, the Apache web server, the MySQL database and the languages PHP and Perl. Many websites run on a variation of LAMP.

XAMPP runs on multiple platforms and installs versions of Apache, MySQL, PHP and Perl specifically tailored to run on your local machine rather than on a server openly available on the internet. The emphasis on local installation also means that XAMPP is inherently insecure and should not be deployed on systems accessible from outside your own network. XAMPP makes all of this extraordinarily easy and the rest of this post will show you just how easy it really is.[26]

2.8 SCRIPTING LANGUAGE

2.8.1 PHP

PHP is known as "PHP: HyperText Preprocessor". It is a server-side scripting language usually written in an HTML context. Unlike an ordinary HTML page, a PHP script is not sent directly to a client by the server; instead, it is parsed by the PHP binary or module, which is server-side installed. HTML elements in the script are left alone, but PHP code is interpreted and executed.

PHP code in a script can query databases, create images, read and write files, talk to remote servers the possibilities is endless. The output from PHP code is combined with the HTML in the script and the result sent to the user’s web-browser, therefore it can never tell the user whether the web-server uses PHP or not, because the entire browser sees is HTML.

PHP's support for Apache and MySQL further increases its popularity. Apache is now the most-used web-server in the world, and PHP can be compiled as an Apache module. MySQL is a powerful free SQL database, and PHP provides a comprehensive set of functions for working with it. The combination of Apache, MySQL and PHP is all but unbeatable. [27]

2.8.2 ASP.NET

A Microsoft server-side Web technology. ASP.NET takes an object-oriented programming approach to Web page execution. [28] Every element in an ASP.NET page is treated as an object and run on the server. An ASP.NET page gets compiled into an intermediate language by a .NET Common Language Runtime-compliant compiler. Then a JIT compiler turns the intermediate code to native machine code, and that machine code is eventually run on the processor. Because the code is run straight from the processor, pages load much faster than classic ASP pages, where embedded VBScript or JScript had to be continuously interpreted and cached.

Table 2.6 : Comparison between PHP and ASP.NET [29]

	PHP	**ASP.NET**
Software price	free	free
Platform price	free	$$
Speed	strong	weak
Efficiency	strong	weak
Security	strong	strong
Platform	strong	weak
Platform	any	win32
Source available	yes	no
Exceptions	yes	yes
OOP	strong	strong

2.8.3 C++

C++ is a type of computer programming language. C++ was designed to serve as an enhanced version of the C programming language. C++ is object oriented and is considered a high level language. However, it features low level facilities. C++ is one of the most commonly used programming languages.

C++ enhanced the C programming language in a variety of ways. Among the features of C++ are classes, virtual functions, templates, and operator overloading. The C++ language also counts multiple inheritance and exception handling among its many features. C++ introduced the use of declarations as statements and includes more type checking than is available with the C programming language.

Considered a superset of the C programming language, C++ maintains a variety of features that are included within its predecessor. As such, C programs are generally able to run successfully in C++ compilers. However, there are some issues that may cause C code to perform differently in C++ compilers. In fact, it is possible for some C code to be incompatible in C++.

The C++ computer programming language was created for UNIX, providing programmers with the advantage of being able to modify code without actually changing it ,C++ code is reusable. Also, library creation is cleaner in C++. The C++ programming language is considered portable and does not require the use of a specific piece of hardware or just one operating system. [30]

2.8.4 JAVA

Java is a programming language expressly designed for use in the distributed environment of the Internet. It was designed to have the "look and feel" of the C++ language, but it is simpler to use than C++ and enforces an object-oriented programming model. Java can be used to create complete applications that may run on a single computer or be distributed among servers and clients in a network. It can also be used to build a small application module or applet for use as part of a Web page. Applets make it possible for a Web page user to interact with the page.

Table 2.7: Comparison between C++ and Java approach [31]

C++	Java
Compatible with C source code, except for a few corner cases	No backward compatibility with any previous language. The syntax is, however, strongly influenced by C/C++.
Write once compile anywhere (WOCA)	Write once run anywhere / everywhere (WORA / WORE)
Allows procedural programming, functional programming, object-oriented programming	Strongly encourages an object oriented programming paradigm.
Allows direct calls to native system libraries.	Call through the Java Native Interface and recently Java Native Access
Exposes low-level system facilities.	Runs in a protected virtual machine.
Only provides object types and type names.	Allowing metaprogramming and dynamic code generation at runtime.

Supports native unsigned arithmetic.	No native support for unsigned arithmetic.
Full multiple inheritances, including virtual inheritance.	Single inheritance only from classes, multiple from interfaces.

2.9 WEB BROWSER

Web browser is a software application for retrieving presenting and traversing information resources on the World Wide Web. [32] For comparison for both web browser can refer to table 2.8 below.

2.9.1 Google Chrome

Google Chrome is an open source web browser that compatible any Windows version and Mac OS. It is designed for speed and generally faster browsing. Besides, it is a simple web browser design and user friendly for the end user to use it. The toolbar and tab also easy to many and configure. [33]

2.9.2 Mozilla Firefox

Mozilla Firefox is a free and open source web browser. Firefox runs on various operating systems including Microsoft Windows, Linux, Mac OS X, FreeBSD, and many other platforms. Its current stable release is version 7.0.1 and above. The features include tabbed browsing, spell checking, incremental find, live bookmarking, a download manager, private browsing, location-aware browsing based exclusively on a Google service and an integrated search system that uses Google by default in most localization. [34]

Table 2.8: Comparison between Google Chrome and Mozilla Firefox approach [35]

	Google Chrome	**Mozilla Firefox**
DOM/CSS Loading Time	1200 seconds	700 seconds
Javascript Loading Time	1700 seconds	100 seconds
Memory Use	200,000 kb	110,000 kb
Tab Loading Time	8.25 seconds	8 seconds
Page Load Time	1.45 seconds	1.34s
Overall Performance	2nd	1st

2.10 HEURISTIC ATTRIBUTES

2.10.1 Schneiderman's "Eight Golden Rules of Interface Design"

To improve the usability of an application it is important to have a well-designed interface. Schneider man’s 8 Golden rules of the interface design are a guide to good interaction design.

1. **Strive for consistency**

   Consistent sequences of actions should be required in similar situations; identical terminology should be used in prompts, menus, and help screens; and consistent commands should be employed throughout.

2. **Enable frequent users to use shortcuts.**

   As the frequency of use increases, so do the user's desires to reduce the number of interactions and to increase the pace of interaction. Abbreviations function keys, hidden commands, and macro facilities are very helpful to an expert user.

3. **Offer informative feedback.**

   For every operator action, there should be some system feedback. For frequent and minor actions, the response can be modest, while for infrequent and major actions, the response should be more substantial.

4. **Design dialog to yield closure**

   Sequences of actions should be organized into groups with a beginning, middle, and end. The informative feedback at the completion of a group of actions gives the operators the satisfaction of accomplishment, a sense of relief, the signal to drop contingency plans and options from their minds, and an indication that the way is clear to prepare for the next group of actions.

5. **Offer simple error handling**

As much as possible, design the system so the user cannot make a serious error. If an error is made, the system should be able to detect the error and offer simple, comprehensible mechanisms for handling the error.

6. **Permit easy reversal of actions**

This feature relieves anxiety, since the user knows that errors can be undone; it thus encourages exploration of unfamiliar options. The units of reversibility may be a single action, a data entry, or a complete group of actions.

7. **Support internal locus of control**

Experienced operators strongly desire the sense that they are in charge of the system and that the system responds to their actions. Design the system to make users the initiators of actions rather than the responders.

8. **Reduce short-term memory load.**

The limitation of human information processing in short-term memory requires that displays be kept simple, multiple page displays be consolidated, window-motion frequency be reduced, and sufficient training time be allotted for codes, mnemonics, and sequences of actions.

2.10.2 Jacob Neilson 10 heuristics [39]

1. **Visibility of system status**

   The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

2. **Match between system and the real world**

   The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

3. **User control and freedom**

   Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

4. **Consistency and standards**

   Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

5. **Error prevention**

   Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

6. **Recognition rather than recall**

   Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

7. **Flexibility and efficiency of use**

   Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

8. **Aesthetic and minimalist design**

   Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

9. **Help users recognize, diagnose, and recover from errors**

   Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

10. **Help and documentation**

    Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

2.11 SUMMARY

From the beginning of this chapter, there are discuss about the proposed system based on Management Information System, comparing 3 existing website most common used by the people that similar to the system. Thus, the functionality and design for each existing system based on the comparison could be implemented to the system. More than that, comparison between the development tools, programming language, software that will be used for the development. The benefits of this case study will help us to make and take a decision wisely when develop the system guided by all the comparison that has been made. All the aspect from the comparison gives us some benefits and advantages later.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter will be discussing on the methodology framework that was used to plan, analyze, prepare specification, design, code, test, and maintain. There are lot of software methodology that can be applied to this project like Software Development Life-Cycle (SDLC) and Rapid Application Development (RAD).

The methodology that will be use is Rapid Application Development (RAD) as show in figure 3.1. Rapid application Development is a software development methodology that involves iterative development and the construction of prototype. RAD model is chosen in developing this system because RAD focuses on building application rapidly in a very short amount of time and it is suitable for small projects.

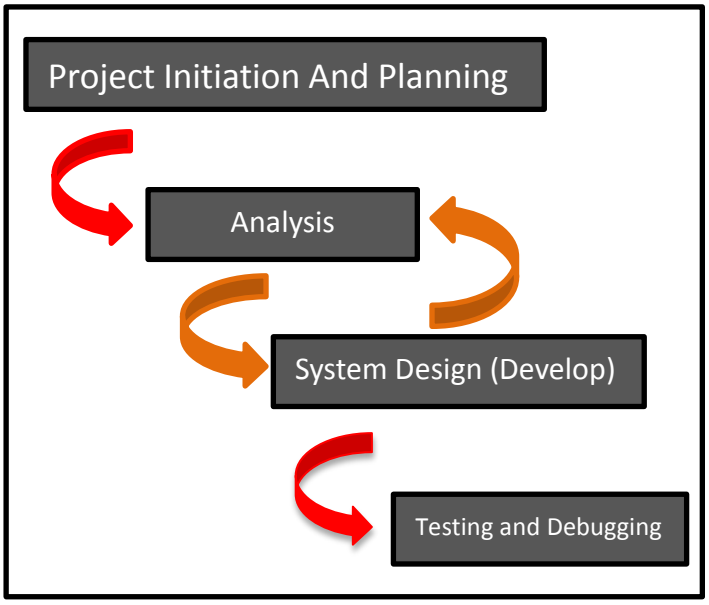


Figure 3.1 : Diagram of RAD

Advantages of RAD

- It increases speed of developing software.
- It can be achieved using methods like rapid prototyping, virtualization of system related routines.
- Re-usability of components helps to speed up development.
- It increases the quality.
- Flexible and adaptable to changes
- Can handle large projects without a doubt
- RAD realizes an overall reduction in project risk

3.2 PROJECT INITIATION AND PLANNING

In this phase of the project (system repository), make a discussion or meeting between the developer of reason to know how and why this system should be developed. The discussion is all about the planning and initiation of the project. For this sem planning can refer appendix 1

3.3 ANALYSIS

Provide research and make an interview to the Petakom Club members and management, asking question to collecting data, and specifying data requirement to know what are the requirements and weakness of the club that project developer will solve and then will study of current information system and its effect to the Petakom Club. In this phase also analyzes the hardware and software requirement in order to creating the system.

3.4 SYSTEM DESIGN

After all of the analysis part and all of the requirement/data has been collected, this phase concentrates on designing the system that meets the requirement based on the data that already collected and creating module for each system repository aspects. This system will be able to manage all of member data information and registration. The project developers will also designing module such as administrator module, user module for this system. For the figure 3.2, 3.3, 3.4 is show the system design that will be implement in this system.

3.4.1 System flow

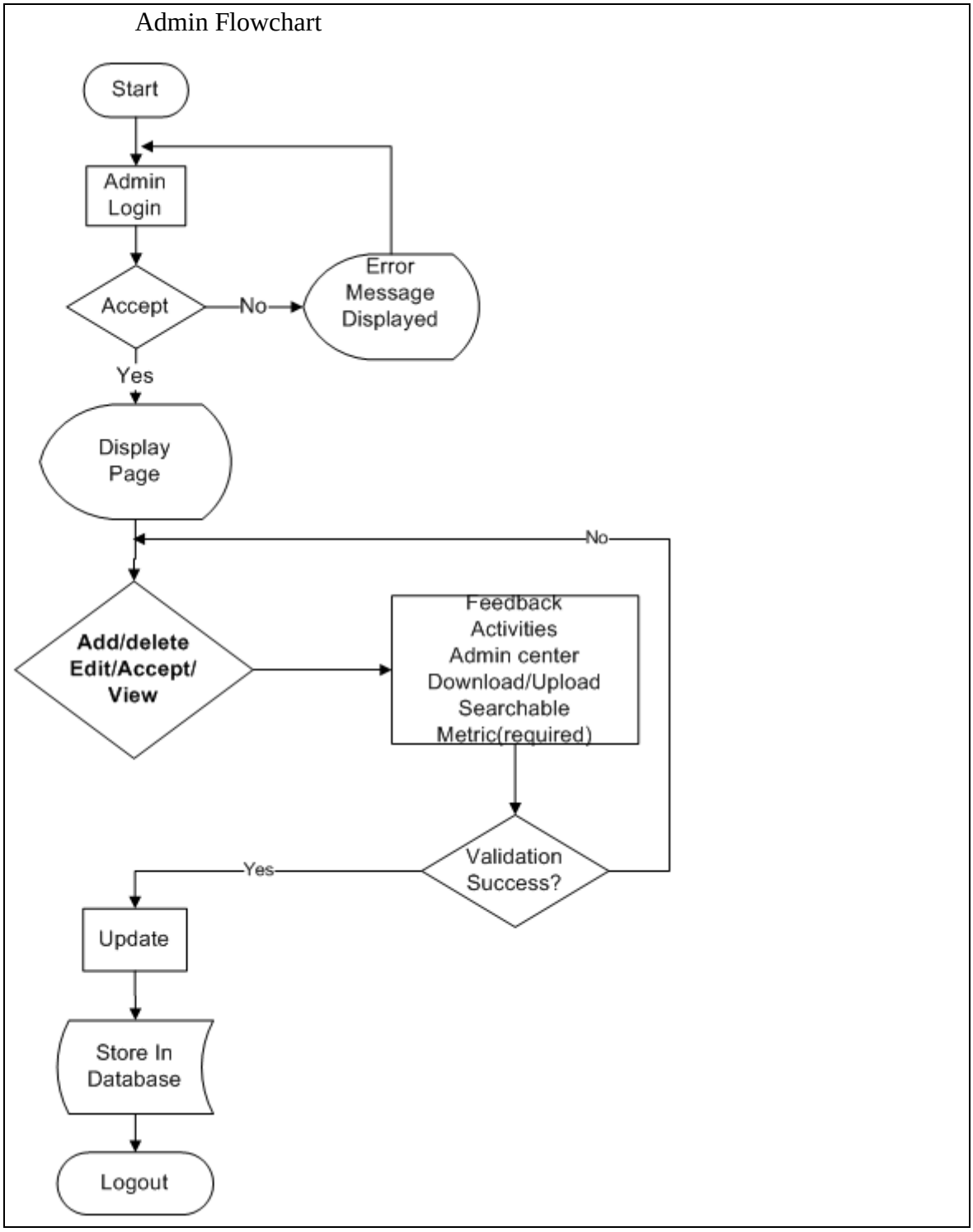


Figure 3.2 : Admin Flowchart of the System

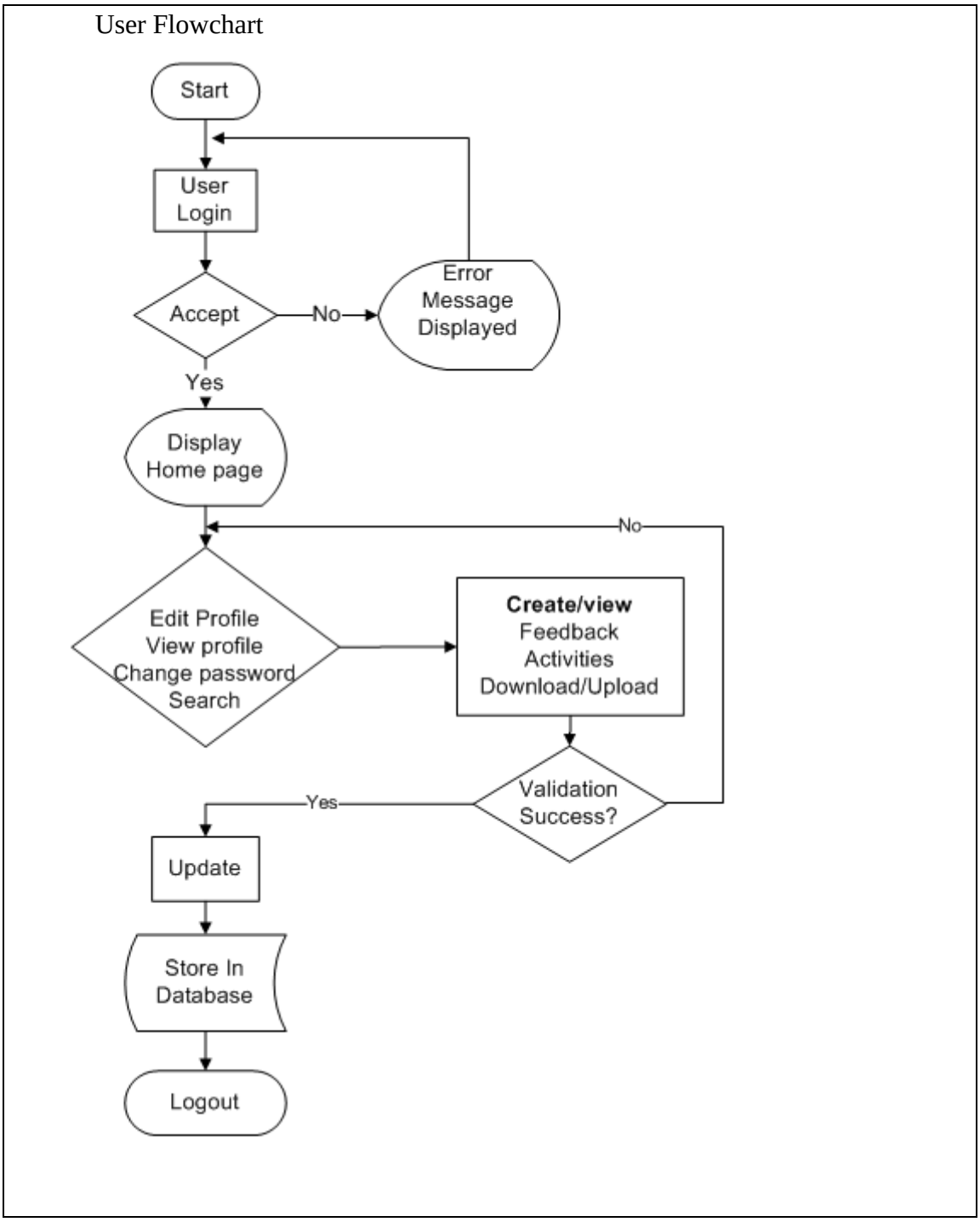


Figure 3.3 : User Flowchart of the System

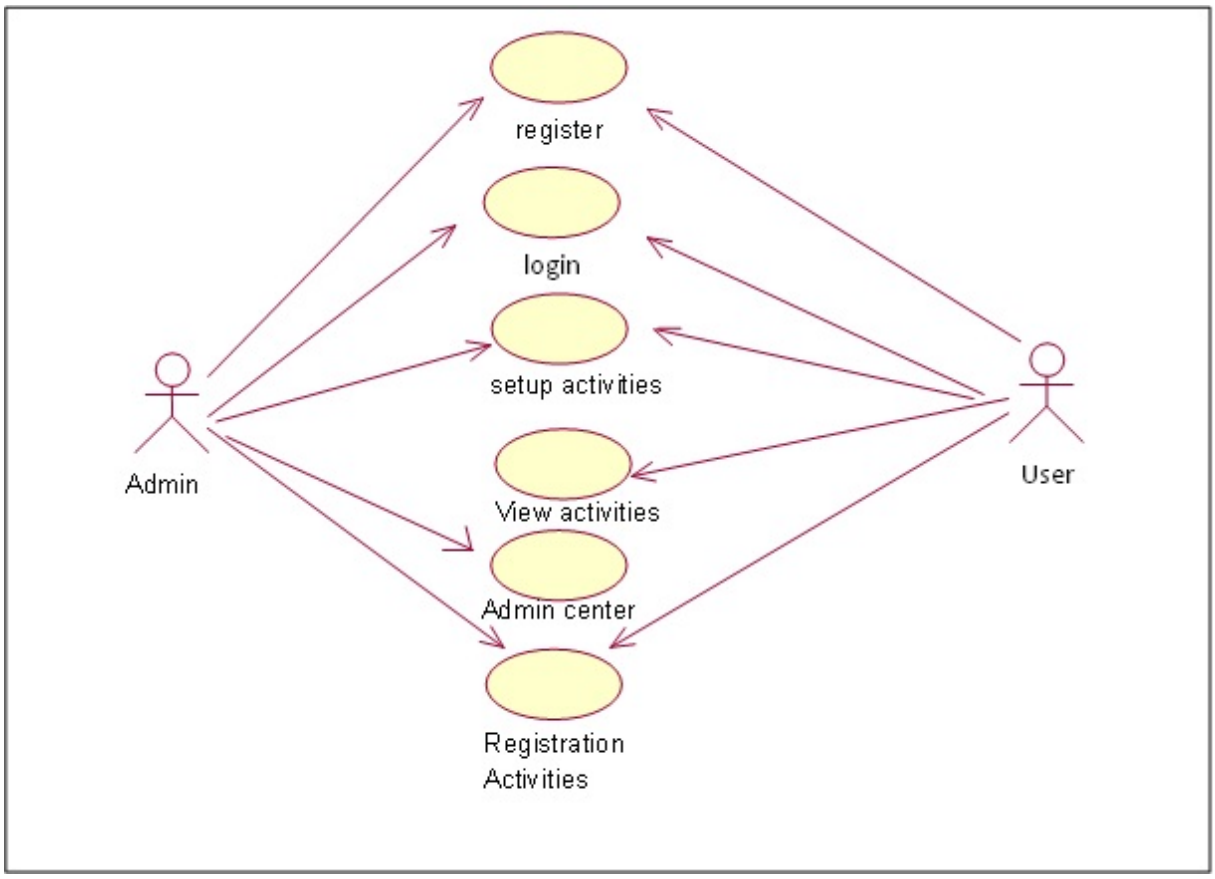


Figure 3.4 : Use Case diagram of the system

3.5 TESTING AND DEBUGGING

The online system repository will be tested in order to identify whether it is successfully running or not, and whether it meets with the requirement. After that, the project developer starts running the system debugging with intention of finding for errors. The project developer also will make a research by using Petakom members or testing new members to use this system to determine confirmation of this system whether it is running and error-free

3.6 DEVELOPMENT TOOLS

To develop the system, it is crucial to choose appropriate software as well as the hardware. Following are the software and hardware requirement for the development phase.

3.6.1 Hardware and software specification

Table 3.1: Hardware minimum requirement and purpose

Items	Minimum Requirement	Purpose
Desktop	• Intel Core i5 760 2.80 GHz • Hard Disk 2TB • RAM 8GB • ATI Radeon HD6850	To develop the system
External Hard Disk	640GB	Backup data and files
Printer	Canon Pixma IP1200	Printing
Pen drive	8GB	Backup files and transferring files

Software Requirement are the device that need in the development of this project.

Table 3.2: Software and purpose

SOFTWARE	PURPOSE
• MySQL	• Database for the system; database platform, generate database, and database management
• EasyPHP	• Development tools for scripting language PHP, web server apache, SQL server integrated with MySQL.
Microsoft Windows Operating System • Windows 7 Professional	• As a platform for a system to run • Operating system which will be used to develop the system
Microsoft Office • Microsoft Word 2010 • Microsoft PowerPoint 2010 • Microsoft Project 2010 • Microsoft Visio 2010	• Prepare proposal and documentation • Prepare slide for presentation • Create scheduling, planning and prepare Gantt Chart • Design and draw chart and Diagram
Web server • Xampp	• Open connection to database & server
Web Browser Software: • Google Chrome	• To access internet and search related information on internet

Adobe • Photoshop CS5 • Dreamweaver	• Design system interface • Design template website
• Rational Rose	• Analysis and design tools

3.7 CONCLUSION

The methodology that has been chosen in developing this system is Rapid application Development (RAD). This methodology was chosen because it is efficient in developing small system in a very short amount of time rapidly.

Besides, there some hardware and software requirement that been choosing to develop the project. This requirement is very important in development project process which make the project complete on the target schedule.

CHAPTER 4

IMPLEMENTATION

4.1 Introduction

This chapter covers the implementation phase of the Online Repository System for Petakom Club. During the implementation, the system is built, tested and run. This chapter also focuses on development of the workable system activities. The implementation activities include the system coding, debugging and documenting. System coding and debugging are the main activities in this phase. The coding includes the structure of coding system that is used to run the functions in this system. The detailed specifications produced during the design phase are translated into executable software. The software has gone through unit testing, integration testing and retested in a systematic manner. Then, hardware and the operating system requirement have to be met at this phase.

Implementation is an important phase to develop the system. The developer will decide the tools that will be used to implement the system starting from building the interfaces to running the system with error free until the whole functions complete. The process involved in this phase is creating database and followed by developing the user interfaces.

4.2 Database Construction

Database is the most important things that need to be constructed during the initial stage of implementation. Database for Online Repository System is constructing using PhpMyAdmin. PhpMyAdmin is a tool written in PHP intended to handle the administration of MySQL over the Web. Currrently, it can create and drop databases, create/drop/alter the tables, add/edit/delete the fields, execute any SQL statement, manage keys on fields, manage privileges and export data into various type of formats.

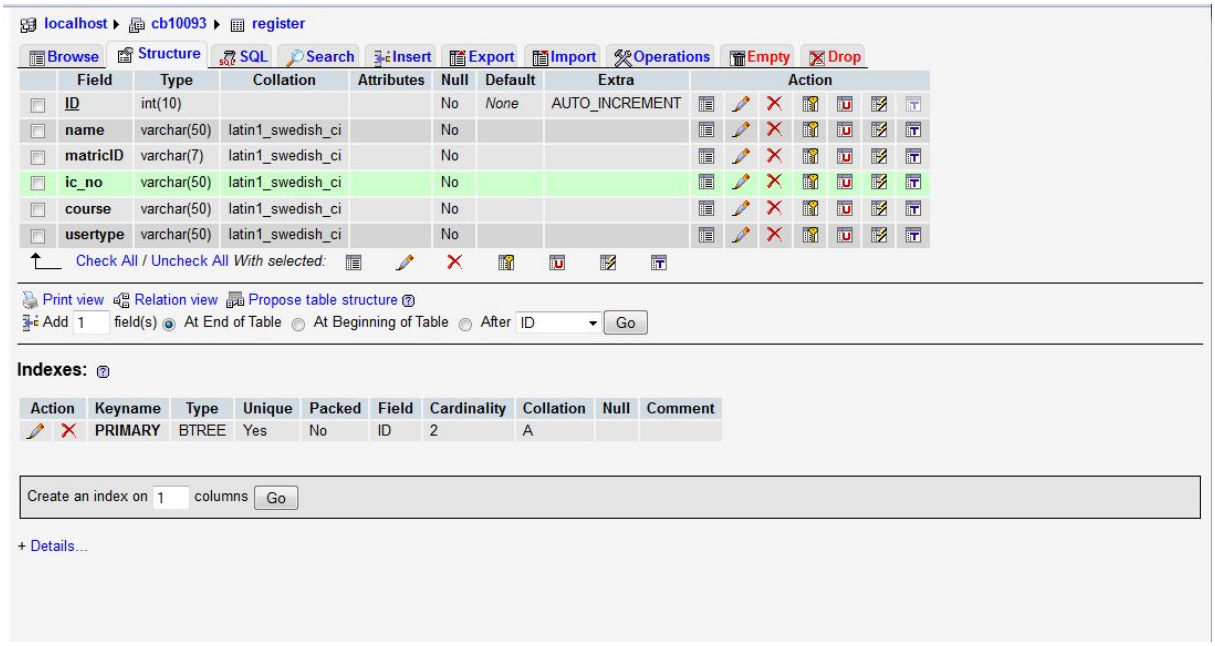


Figure 4.1 : Register Table in MySQL

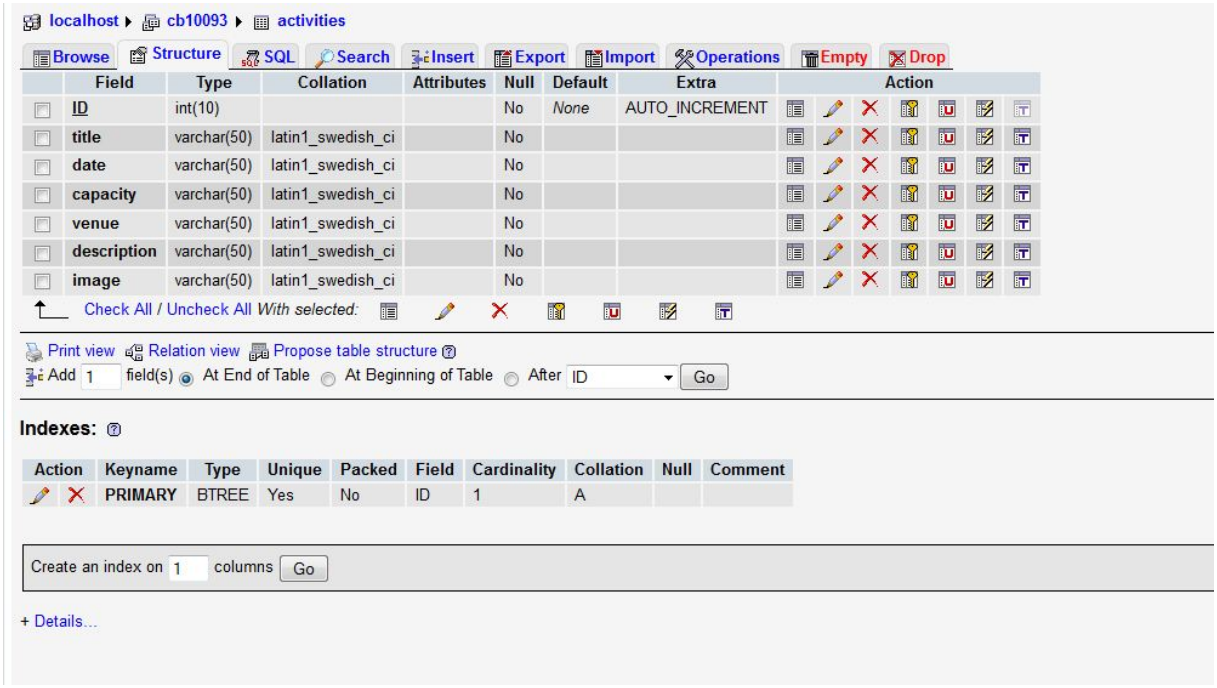


Figure 4.2 : Activities Table in MySQL

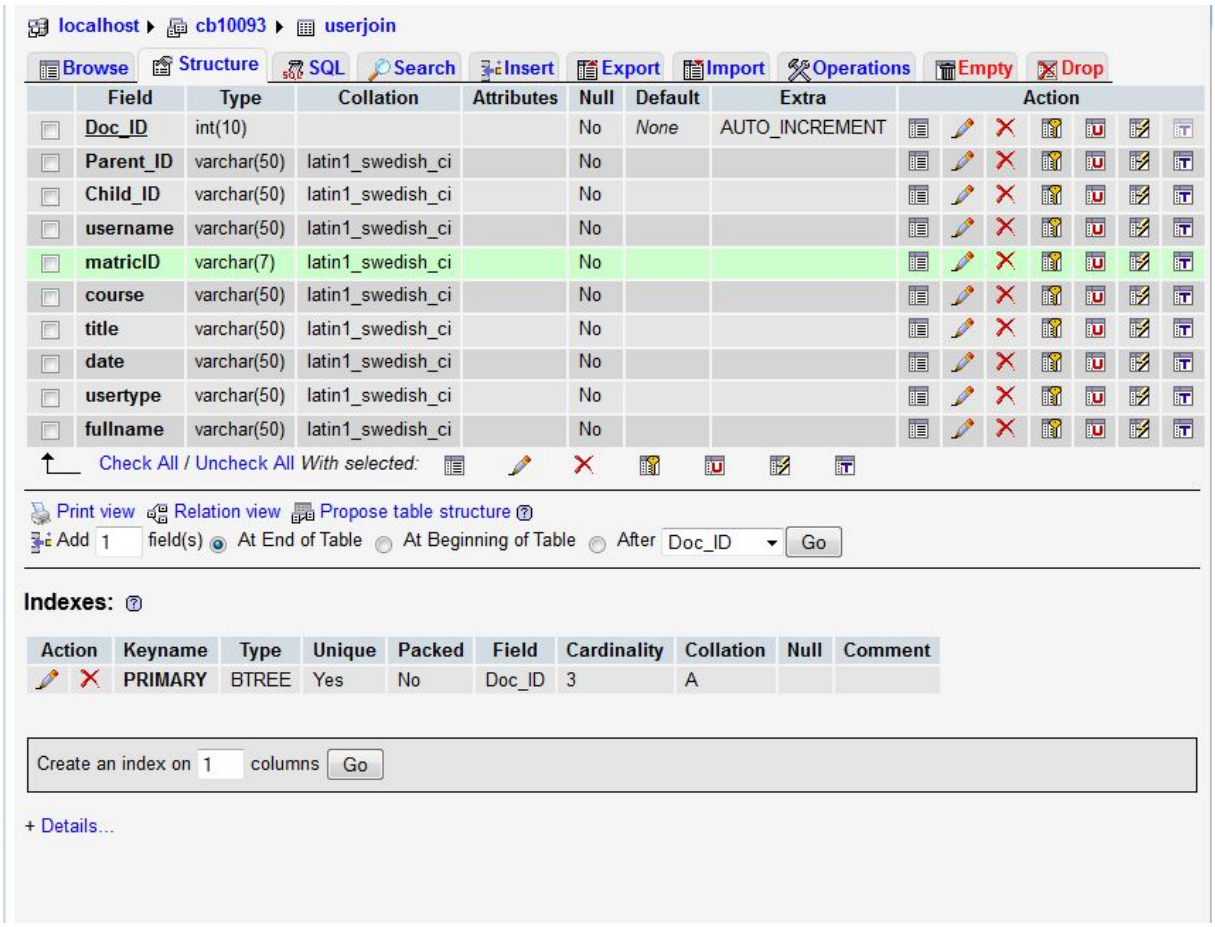


Figure 4.3 : Join Table in MySQL

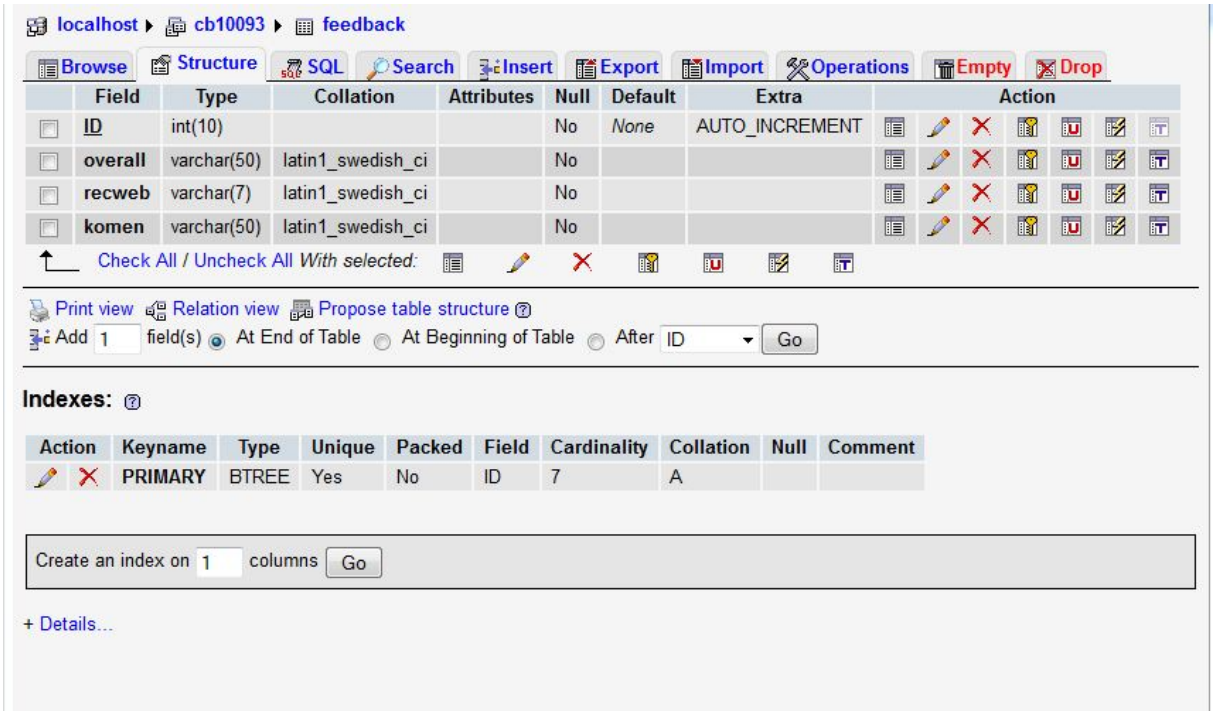


Figure 4.4 Feedback Table in MySQL

4.3 User Interface Construction

User interface design is important for several reasons. Basically, the intuitive of user interface is easy to use it and reduce the training costs due to the straightforward to train people to use this system. User-friendly interfaces attract more users to use it and increasing the user satisfaction with the system. PHP, HTML and CSS script language is used in generate the interface in this system.

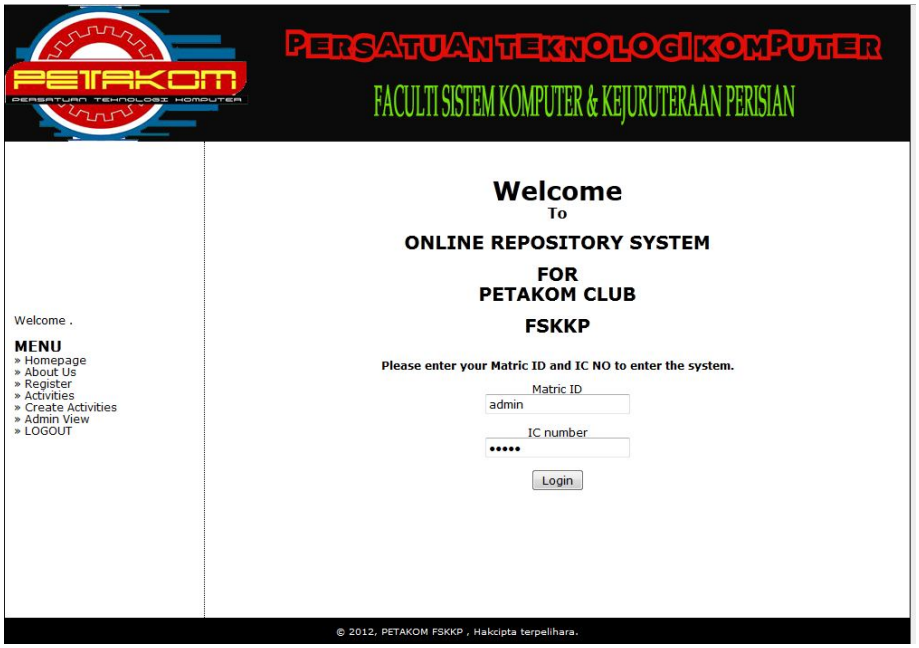


Figure 4.5 : Login Interface

Figure 4.6 : Homepage Interface

Figure 4.7 : Registration Interface

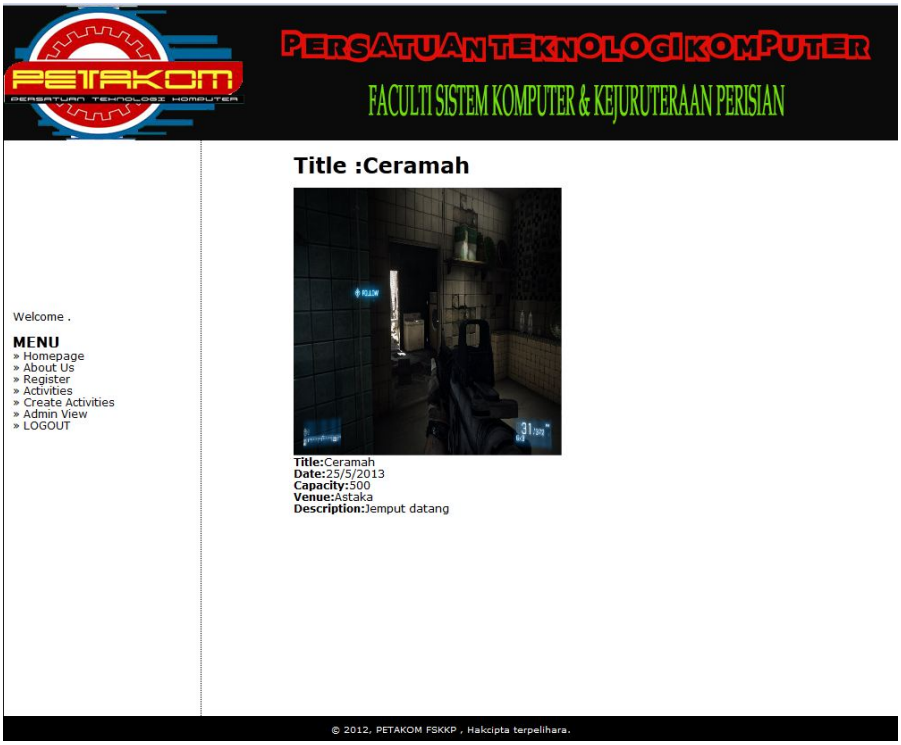


Figure 4.8 : View Activities Interface

Figure 4.9 : Create Activities Interface

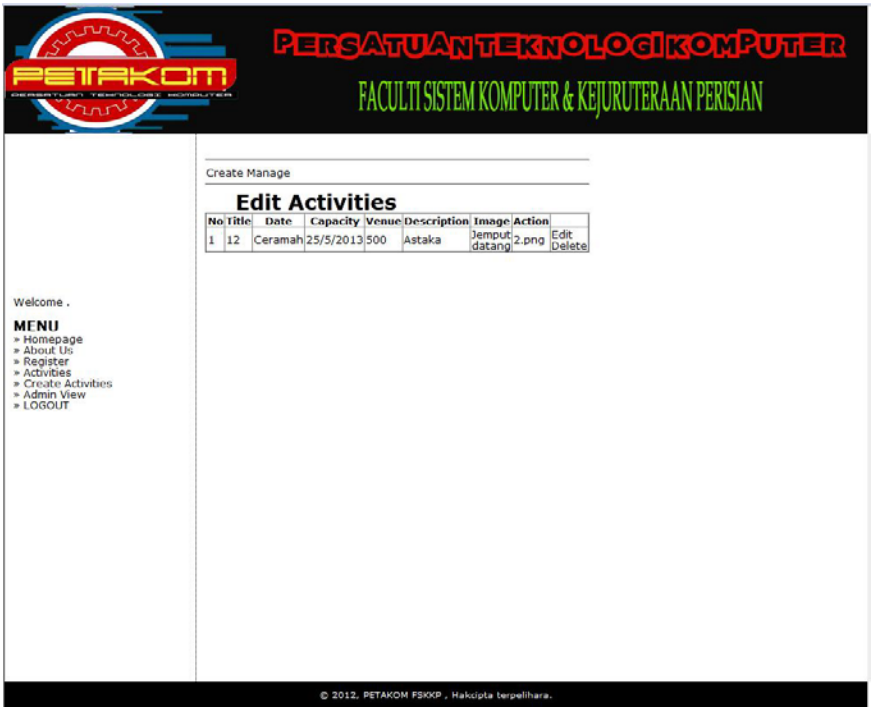


Figure 4.10 : Manage Activities Interface

Figure 4.11 : Edit Activities Interface

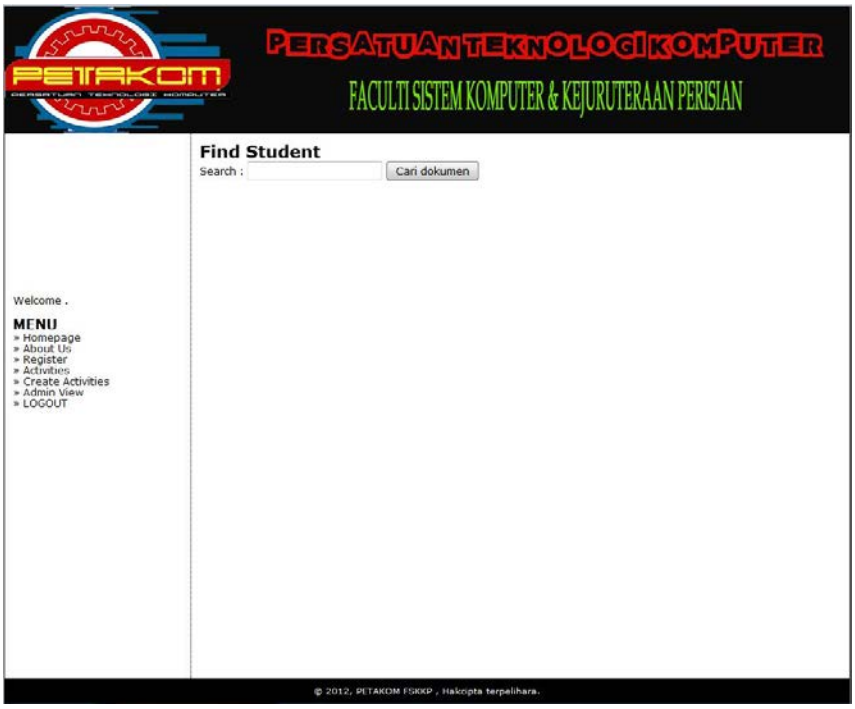


Figure 4.12 : Search Interface

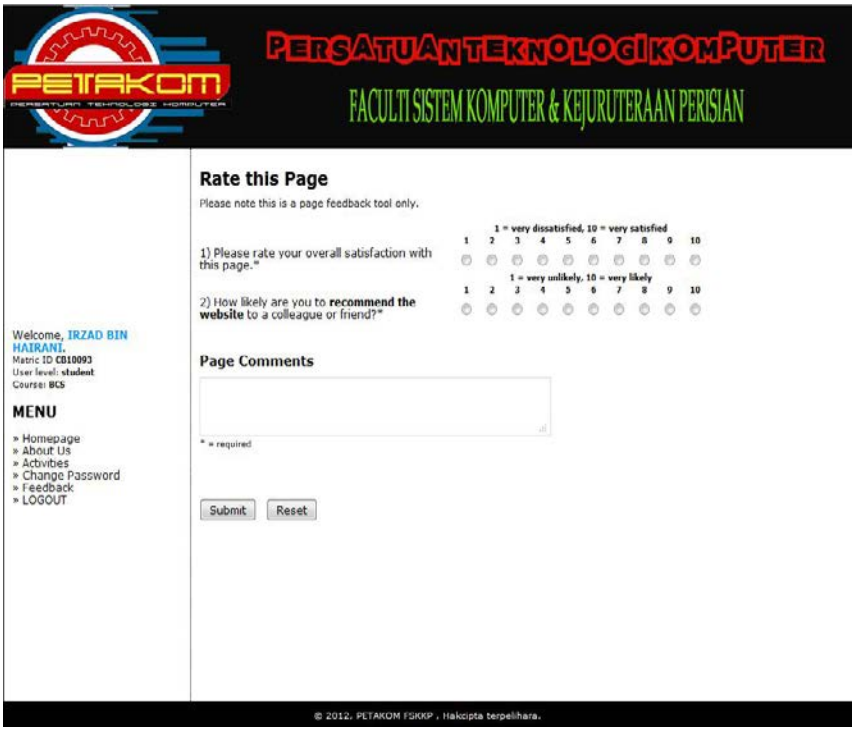


Figure 4.13 : Feedback Interface

4.4 Coding

```
<?php
define("DATABASE_HOST","localhost");
define("DATABASE_USER","root");
define("DATABASE_PASSWORD","");
$conn = mysql_connect(DATABASE_HOST, DATABASE_USER, DATABASE_PASSWORD);
if(!$conn){
	die ("Could not connect to database");
	}
	mysql_select_db("cb10093", $conn) or die ( "Could not open products database");
	?>
```

Figure 4.14 Connection.php

```
<?php
include "connection.php";

if (isset($_POST['Input'])) {

	$title = $_POST['title'];
	$date = $_POST['date'];
	$capacity = $_POST['capacity'];
	$venue = $_POST['venue'];
	$description = $_POST['description'];
	$image = $_FILES['image']['name'];

	if (strlen($image)>0) {
		//upload
		if (is_uploaded_file($_FILES['image']['tmp_name'])) {
			move_uploaded_file ($_FILES['image']['tmp_name'],
```

```
"images/".$image);
                }
        }

        //insert ke table

          $query = "INSERT INTO activities (title, date, capacity, venue, description,
image)
      VALUES
('".$title."','".$date."','".$capacity."','".$venue."','".$description."','".$image."')";

          $sql = mysql_query ($query) or die (mysql_error());
        if ($sql) {
                echo "<table width='100%' style='border: 2px solid #ccc; background-
color: #eee;'>
                                <tr>
                                <td style='padding:'10px'; padding-bottom: '15px';>
                                <span style='font-size: 9px; font-weight: bold;'>Status
message:
                                <h3><font color=blue>REGISTERED
SUCCESSFULL</font></h3>
                                </span>
                                </td>
                                </tr>
                                </table>
                                <br>";



        } else {
                echo "<table width='100%' style='border: 2px solid #ccc; background-
color: #eee;'>
                                <tr>
                                <td style='padding:'10px'; padding-bottom: '15px';>
```

```
                        <span style='font-size: 9px; font-weight: bold;'>Status
mesej:
                        <h3><font color=red>ACTIVITIES CREATED
UNSUCCESSFULL</font></h3>
                        </span>
                        </td>
                        </tr>
                        </table>";

        }
        }
?>
```

Figure 4.15 INSERTACTIVITIES.php

```
<?php
include "connection.php";

if (isset($_GET['ID'])) {
        $ID = $_GET['ID'];
} else {
        die ("Error. No id Selected! ");
}

$query = "SELECT * FROM activities WHERE ID='$ID'";
$sql = mysql_query ($query);
$hasil = mysql_fetch_array ($sql);
                $title = stripslashes ($hasil['title']);
                $date = stripslashes ($hasil['date']);
                $capacity = stripslashes ($hasil['capacity']);
                $venue = stripslashes ($hasil['venue']);
```

```
                $description = stripslashes ($hasil['description']);
                $image = stripslashes ($hasil['image']);

//proses edit
if (isset($_POST['Edit'])) {
        $title = $_POST['title'];
        $date = $_POST['date'];
        $capacity = $_POST['capacity'];
        $venue = $_POST['venue'];
        $description = $_POST['description'];
        $image = $_FILES['image']['name'];

        if (strlen($image)>0) {
                //upload
                if (is_uploaded_file($_FILES['image']['tmp_name'])) {
                        move_uploaded_file ($_FILES['image']['tmp_name'],
"images/".$image);
                        mysql_query ("UPDATE activities SET image='$image'
WHERE ID='$ID'");
                }
        }

        //update data
        $query = "UPDATE activities SET title='$title', date='$date',
capacity='$capacity', venue='$venue', description='$description', image='$image'
WHERE ID='$ID'";
        $sql = mysql_query ($query);
        if ($sql) {
                echo "<table width='100%' style='border: 2px solid #ccc; background-
color: #eee;'>
                                <tr>
                                <td style='padding:'10px'; padding-bottom: '15px';>
                                <span style='font-size: 9px; font-weight: bold;'>Status
message:
```

```
                    <h3><font color=blue>EDIT SUCCESSFULL</font></h3>
                    </span>
                    </td>
                    </tr>
                    </table>
                    <br>";
        } else {
                echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
                    <tr>
                    <td style='padding:'10px'; padding-bottom: '15px';>
                    <span style='font-size: 9px; font-weight: bold;'>Status message:
                    <h3><font color=red>EDIT UNSUCCESSFULL</font></h3>
                    </span>
                    </td>
                    </tr>
                    </table>";
        }
}
?>
```

Figure 4.16 Edit.php

```
<?php
error_reporting(E_ALL ^ E_NOTICE);
include "connection.php";

if (isset($_GET['ID'])) {
        $ID = $_GET['ID'];
} else {
        die ("Error. No ID Selected! ");
```

```
}
?>
<div id="content">
        <?

        //delete process
        if (!empty($ID) && $ID != "") {

                $query = "DELETE FROM activities WHERE ID='$ID'";
                $sql = mysql_query ($query);
                if ($sql) {

require 'update.php';
                } else {
                        echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
                                <tr>
                                <td style='padding:'10px'; padding-bottom: '15px';>
                                <span style='font-size: 9px; font-weight: bold;'>Status message:
                                <h3><font color=blue>DELETE ACTIVITIES SUCCESSFULL</font></h3>
                                </span>
                                </td>
                                </tr>
                                </table>
                                <br>";
                }
                echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
                                <tr>
                                <td style='padding:'10px'; padding-bottom: '15px';>
                                <span style='font-size: 9px; font-weight: bold;'>Status message:
```

```
                        <h3><font color=red>DELETE ACTIVITIES
UNSUCCESSFULL</font></h3>
                        </span>
                        </td>
                        </tr>
                        </table>";

        } else {
                die ("Access Denied");
        }
        ?>
```

Figure 4.17 Delete.php

```
<?php
function main() {
?>
                 <br />  </td>
                <td width="50"><img src="testing/mm_spacer.gif" alt="" width="50"
height="1" border="0" /></td>
                <td colspan="2" valign="top"><img src="testing/mm_spacer.gif"
alt="" width="305" height="1" border="0" /><br />
                 <br />
<?php
include "connection.php";


if(!isset( $_GET['selpg']))
```

```
{       $selpg = 1; }
elseif ($_GET['selpg'] >= 1)
{       $selpg = $_GET['selpg']; }
else
{       $selpg = 1; }
$selpgQQ = $selpg - 1;
$selpgQ1 = $selpgQQ * 2;
$selpgQ2 = $selpg * 2;
$no = $selpgQ1 +1;
?>
<?php
$queryget = mysql_query("SELECT * FROM activities ");
$querygetrownum = mysql_num_rows($queryget);
        if ($querygetrownum==0)
echo "No Advertise have created";
        while ($row = mysql_fetch_assoc($queryget))
{
        $image = $row['image'];
        $title = $row['title'];
        $date = $row['date'];
        $capacity = $row['capacity'];
        $venue = $row['venue'];
        $description= $row ['description'];
```

```
echo "<h2>Title :$title</h2>";
echo "<br><embed src='images/$image' width='300' height='300'/><br>";
echo "<b>Title:</b>$title<br>
<b>Date:</b>$date<br>
<b>Capacity:</b>$capacity<br>
<b>Venue:</b>$venue<br>
<b>Description:</b>$description<br>";
}
?>
<?php
}
include ('layout.php');
?>
```

Figure 4.18 Activities.php

```
<?php
require_once('connection.php');
function main() {
?>
<?php
if (isset($_GET['ID'])) {
$ID = $_GET['ID'];
```

```
} else {
        die ("Error. No id Selected! ");
}
$query = "SELECT * FROM activities WHERE ID='$ID'";
$sql = mysql_query ($query);
$hasil = mysql_fetch_array ($sql);
$title = stripslashes ($hasil['title']);
$date = stripslashes ($hasil['date']);

//proses edit
if (isset($_POST['Edit'])) {
        $username = $_POST['username'];
        $matricID = $_POST['matricID'];
        $course = $_POST['course'];
        $title = $_POST['title'];
        $date = $_POST['date'];
//update data
        $query = "UPDATE activities SET title='$title', date='$date' WHERE ID='$ID'";
        $sql = mysql_query ($query);
        if ($sql) {
        echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
                                <tr>
```

```
                        <td style='padding:'10px'; padding-bottom: '15px';>
                    <span style='font-size: 9px; font-weight: bold;'>Status message:
                    <h3><font color=blue>EDIT SUCCESSFULL</font></h3>
                        </span>
                        </td>
                        </tr>
                        </table>
                        <br>";
        } else {
echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
<tr>
<td style='padding:'10px'; padding-bottom: '15px';>
<span style='font-size: 9px; font-weight: bold;'>Status message:
<h3><font color=red>EDIT UNSUCCESSFULL</font></h3>
</span>
</td>
</tr>
</table>";
        }
}
?>
```

Figure 4.19 Userjoin.php

```
<?php
if (isset($_POST['Input'])) {
$overall = $_POST['overall'];
$recweb =$_POST['recweb'];
$komen = $_POST['komen'];
$query = "INSERT INTO feedback (overall, recweb, komen)
VALUES ('".$overall."','".$recweb."','".$komen."')";
$sql = mysql_query ($query) or die (mysql_error());
if ($sql) {
echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
        <tr>
<td style='padding:'10px'; padding-bottom: '15px';>
<span style='font-size: 9px; font-weight: bold;'>Status message:
<h3><font color=blue>FEEDBACK SUCCESSFULL</font></h3>
        </span>
        </td>
        </tr>
        </table>
        <br>";
        } else {
echo "<table width='100%' style='border: 2px solid #ccc; background-color: #eee;'>
<tr>
<td style='padding:'10px'; padding-bottom: '15px';>
```

```
<span style='font-size: 9px; font-weight: bold;'>Status message:

<h3><font color=red>FEEDBACK UNSUCCESSFULL</font></h3>

</span>

</td>

</tr>

</table>";

}

}

?>
```

Figure 4.20 Feedback.php

4.5 Testing

During the development process, testing is a part of methodology and keep going do during this development process. Testing by each part or module is the way to keep and avoiding system error during development.

4.6 Conclusion

In this implementation chapter, shows how the system that has been develop in the PSM II. Database of the system is the first step that has been created before starting the development process. The database of this system is use MySQL in MyPHP admin in Xammp software. After done create database, interface has been develop by using HTML and CSS. After interface design is complete, Engine of the system that is PHP will encode in the interface to run the system smoothly.

CHAPTER 5

EXPECTED RESULT, DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

In this chapter, it describes the achievement of the project objectives based on the result of the system. Detail about the outcome, assumption and further research about this system also discussed in this chapter.

5.2 EXPECTED RESULT

The expected results from the project and development of this system are described as below:

i. The system should minimize the time consume to centralize the data information of the Petakom members.
ii. All of the data information will be easier to handle and managed by using this system.
iii. All of the searching part will be more efficient by using this system

5.2.1 Result of the System

This online repository system main objective is to facilitate and centralize the data information system of the Petakom club in more organized and structured way. Providing many kinds of functional such as allowing online registration for new members, allowing administrator to update information, publish activities, providing feedback, and assisting members to share information by download or upload files to the system. This will reduce time in managing every kind of task such as searching members and creating paperless working environment instead of traditional working type such as using a log book.

5.2.2 Generate Result

System should be able to generate the result based on the best solution near to the constraints.

This system should be able to register the new members of Petakom, can display the all activities in this web site. Also can generate the report for the new members that has been registered. Other than that, system merit demerit will be generate to give the merit to the active members from the website.

5.2.3 Advantage of the System

The advantage of this system is centralizing the data information system:

- All of the data information will be easier to handle and managed.
- Member's information will be saved properly and it will prevent from data loss and data redundancy instead of using ring files to store information that can easily cause data loss.

- All of the searching part will be more efficient than searching manually using file that stored in ring files.

5.2.4 The limitation of system

This system has its limitation; the limit of this system is it does not have an electronic-payment in this system, must deal with manual payment. This means that if Petakom members want to pay their fee or any payment to the club, they will have to come to Petakom club office to deal with payment. Another limit of this system is that these systems are depending on internet connection. Without any connection, this system cannot run and functioning.

5.3 DISCUSSION

Online Repository System for Petakom Club is a system which is consists of 6 modules include 6 major functions. Admin and user are the main user in this system. Both users have relation between each other to operate and to make this system running effectively. There are lots of constraints from the beginning of the system development documentation until at the end of development process. Testing are always being a part of development in any development process. In this system testing is very important to test the functionality of the system or modules, to make sure the systemis reliable to use. Assumptions of the final system characteristic consist of two, functional and non-functional testing. Error handling is one of functional testing. For non-functional testing, it has four requirements such as maintainability, usability, performance and availability. One example of the system test case is when unit testing login, test case will successful log on into the system, the step is when user give the correct username and password (input). The expected output is user will be able to log in through this module when all input data is valid. It will not valid if user did not follow the steps.

5.4 CONCLUSION

There are altogether 5 chapters in this thesis starting from introduction chapter that briefly described about the idea of the project. Second chapter is the literature review which described about the work related to the project, a techniques and constraints related to the project. Next chapter is the methodology. In this chapter it discuss about the software process and methodology that will implement to the project. The fourth chapter discussed about the expected result of the project and the last chapter will describe about the conclusion of the proposed project.

The main objective of this system is to help the organization of the club. By using this system the organization of Petakom club have an authority to keep track the members of the Petakom activities while using this system.

This online repository system helps centralizing data in Petakom club operation. Members that have been registered by administrator can register online by accessing this system and update their information. Members of Petakom can also share information by download and upload file to the system. Any activities will be made and approve by administrator, searching can be made in order to find member in Petakom club. In the end, this online repository system is important to ensure a successful outcome and better time consuming in managing difficult operation.

This system used Rapid Application Development (RAD) methodology because RAD is suitable for project in a short period of time and it also lower cost. There is several phases in this development which is Planning, Iterative Process include Document Requirement, Design, Developing, Testing, User Review, JAD session and finally Deploy phase.

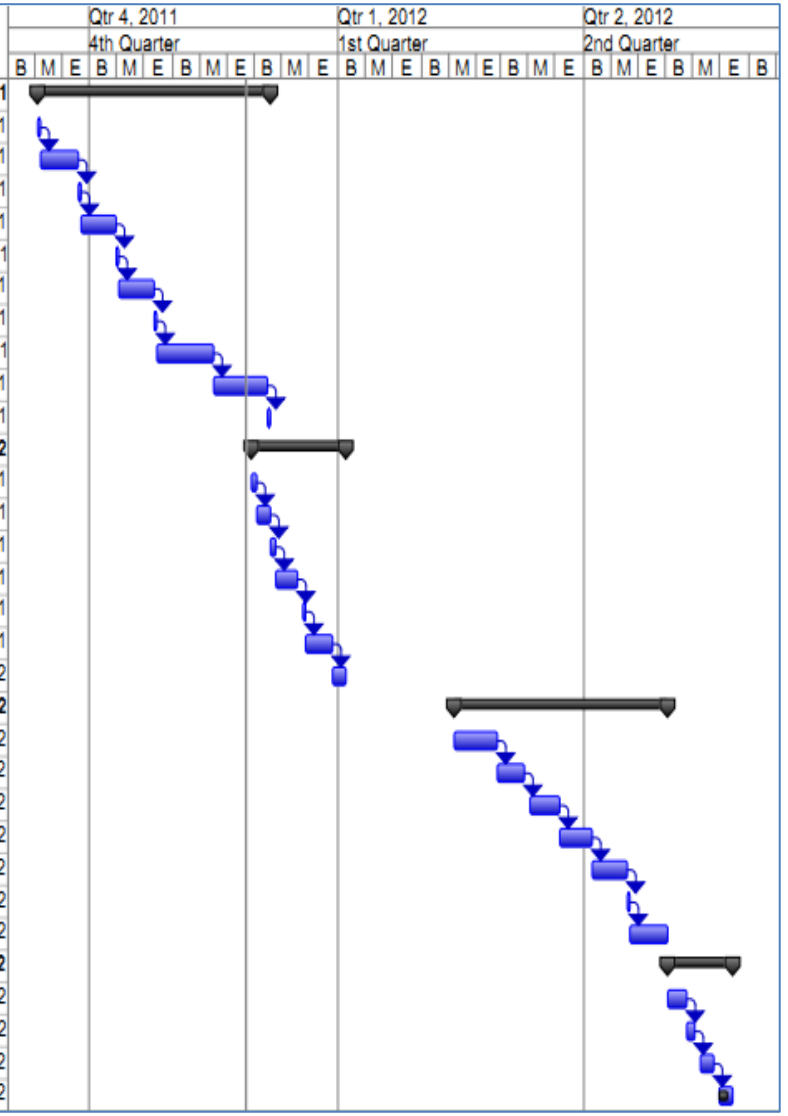
This system is planned to be developed using Dreamweaver CS5, and PHP for interface design and programming as it provides a visual development environment for building application rapidly. These projects also use MySQL as database.

REFERENCES

APPENDIX A

GANTT CHART

ID	Task Name	Duration	Start	Finish
1	**Planning**	**62 days**	**Mon 12/9/11**	**Tue 6/12/11**
2	Define the title, scope and objective	1 day	Mon 12/9/11	Mon 12/9/11
3	Collect data requirement	10 days	Tue 13/9/11	Mon 26/9/11
4	Submit Synopsis(Draft)	1 day	Tue 27/9/11	Tue 27/9/11
5	Collect data requirement	9 days	Wed 28/9/11	Mon 10/10/11
6	Submit Chapter 1(Introduction)	1 day	Tue 11/10/11	Tue 11/10/11
7	Review the system	9 days	Wed 12/10/11	Mon 24/10/11
8	Submit Chapter 2(Literature Review)	1 day	Tue 25/10/11	Tue 25/10/11
9	Preparation for SRS	15 days	Wed 26/10/11	Tue 15/11/11
10	Define methodology	14 days	Wed 16/11/11	Mon 5/12/11
11	Submit Chapter 3 (Methodology)	1 day	Tue 6/12/11	Tue 6/12/11
12	**Design**	**25 days**	**Wed 30/11/11**	**Tue 3/1/12**
13	Build the prototype of system	2 days	Wed 30/11/11	Thu 1/12/11
14	Design the interface	3 days	Fri 2/12/11	Tue 6/12/11
15	Design the database	2 days	Wed 7/12/11	Thu 8/12/11
16	Preparation for SDD	6 days	Fri 9/12/11	Fri 16/12/11
17	Submit Chapter 1 - 3	1 day	Mon 19/12/11	Mon 19/12/11
18	Preparation slide for presentation PSM 1	8 days	Tue 20/12/11	Thu 29/12/11
19	Present PSM I	3 days	Fri 30/12/11	Tue 3/1/12
20	**Construction**	**57 days**	**Mon 13/2/12**	**Tue 1/5/12**
21	Develop the system	12 days	Mon 13/2/12	Tue 28/2/12
22	Complete design interface	8 days	Wed 29/2/12	Fri 9/3/12
23	Implement coding	9 days	Mon 12/3/12	Thu 22/3/12
24	Link database and system	8 days	Fri 23/3/12	Tue 3/4/12
25	Program testing and validation	9 days	Wed 4/4/12	Mon 16/4/12
26	Submit chapter 4(Implementation)	1 day	Tue 17/4/12	Tue 17/4/12
27	Result and discussion	10 days	Wed 18/4/12	Tue 1/5/12
28	**Cutover**	**18 days**	**Wed 2/5/12**	**Fri 25/5/12**
29	Deploy the system	5 days	Wed 2/5/12	Tue 8/5/12
30	Test the system	3 days	Wed 9/5/12	Fri 11/5/12
31	Implement changes	5 days	Mon 14/5/12	Fri 18/5/12
32	Present PSM II	5 days	Mon 21/5/12	Fri 25/5/12



APPENDIX B

SOFTWARE REQUIREMENT SPECIFICATION

APPENDIX C

SOFTWARE DESIGN DESCRIPTION

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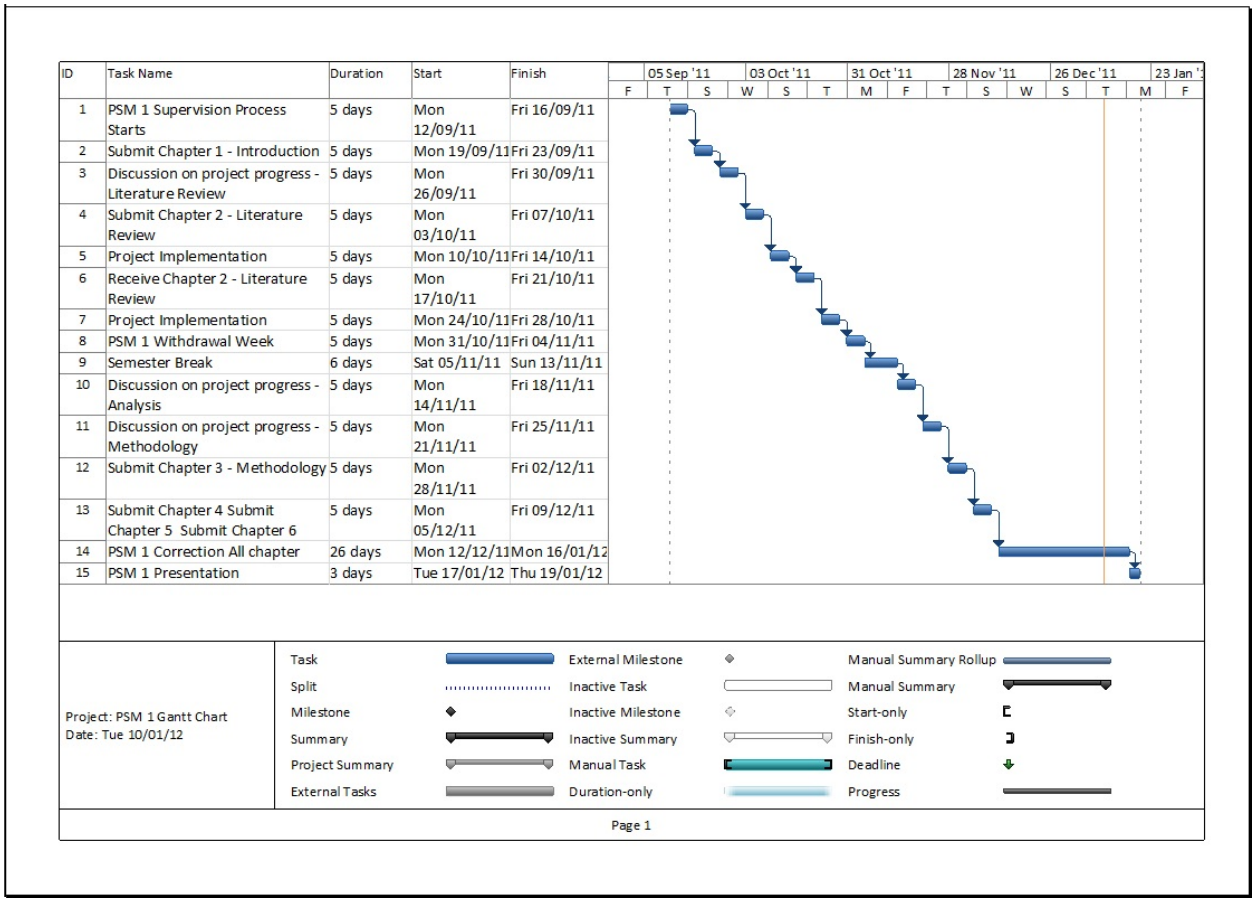
APPENDIX

A - Gantt Chart



ID	Task Name	Duration	Start	Finish
1	PSM 1 Supervision Process Starts	5 days	Mon 12/09/11	Fri 16/09/11
2	Submit Chapter 1 - Introduction	5 days	Mon 19/09/11	Fri 23/09/11
3	Discussion on project progress - Literature Review	5 days	Mon 26/09/11	Fri 30/09/11
4	Submit Chapter 2 - Literature Review	5 days	Mon 03/10/11	Fri 07/10/11
5	Project Implementation	5 days	Mon 10/10/11	Fri 14/10/11
6	Receive Chapter 2 - Literature Review	5 days	Mon 17/10/11	Fri 21/10/11
7	Project Implementation	5 days	Mon 24/10/11	Fri 28/10/11
8	PSM 1 Withdrawal Week	5 days	Mon 31/10/11	Fri 04/11/11
9	Semester Break	6 days	Sat 05/11/11	Sun 13/11/11
10	Discussion on project progress - Analysis	5 days	Mon 14/11/11	Fri 18/11/11
11	Discussion on project progress - Methodology	5 days	Mon 21/11/11	Fri 25/11/11
12	Submit Chapter 3 - Methodology	5 days	Mon 28/11/11	Fri 02/12/11
13	Submit Chapter 4 Submit Chapter 5 Submit Chapter 6	5 days	Mon 05/12/11	Fri 09/12/11
14	PSM 1 Correction All chapter	26 days	Mon 12/12/11	Mon 16/01/12
15	PSM 1 Presentation	3 days	Tue 17/01/12	Thu 19/01/12