

DRIVING SCHOOL INFORMATION SYSTEM (DriSIS)

MOHD HAZIQ BIN ISHAK

A thesis submitted in fulfilment of the requirement for the award of the degree of
Bachelor of Computer Science (Computer Systems & Networking)

Faculty of Systems Computer & Software Engineering

Universiti Malaysia Pahang

JUNE, 2012

STUDENT'S DECLARATION

“I declare that this thesis entitled called ‘Driving Schol Information System (Drisis)’ 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”

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SUPERVISOR'S DECLARATION

“I hereby declare that, I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of the degree of Bachelor of Computer Science (Computer Systems & Networking)”

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In the name of Allah, the Most Gracious and the Most Merciful

Alhamdulillah, all praises to Allah for the strengths and His blessing in completing this thesis. Special appreciation goes to my supervisor, En. Jamaludin Bin Sallim who has supported me throughout my thesis with his patience and knowledge whilst allowing me the room to work in my own way. I attribute the level of my Bachelor degree to his encouragement and effort and without him this thesis, too, would not have been completed or written. One simply could not wish for a better or friendlier supervisor.

Sincere thanks to all my friends especially Mal, Adi, Paan, Reza, Faka, Man, Faiz, Najib and others for their kindness and moral support during my study. Thanks for the friendship and memories.

Last but not least, my deepest gratitude goes to my beloved parents; Ishak Bin Sampan and Nora Binti Tambi for their endless love, prayers and encouragement. Thank you very much.

ABSTRACT

Driving School Information System (DriSIS) is a web based online system for any driving school. This system has several approaches. The first one is to driving school staff. This driving school staff needs to handle many students at one time. This will give problem in term of communicating with student for their driving class schedule or exam. Looking at this scenario, driving school have problem in communicating with their student if the number of student more than the available Instructors. Besides that they also need to handle the instructor in term of notification and appointment. This system will help the instructor to access student information and their driving lesson record. Others than that, the instructor also can get any important information regarding appointment or memo about their schedule from this system. And the last one is to students. Students can access their own data. Only registered student can have access to the database. The only method is through the official website that included in the system.

Methodology used in developing this project is Waterfall Software development methodology. Phases that are included are requirement, system analysis, design, implementation and system testing and maintenance. At the end of this project, it is hope that Driving School Information System (DriSIS) can contribute to driving school operation to make it better and to cater best service.

ABSTRAK

Driving School Information System (DriSIS) ialah sebuah sistem yang mempunyai pelbagai kegunaan. Yang pertama kepada pekerja sekolah memandu itu sendiri. Pekerja sekolah memandu ini perlu menguruskan ramai pelajar pada satu masa. Ini akan menyebabkan masalah komunikasi dengan pelajar mengenai pelbagai perkara berkaitan seperti jadual ujian dan keputusan ujian. Sistem ini berguna untuk menyampaikan maklumat-maklumat tersebut. Selain itu, mereka juga perlu menguruskan perkara-perkara yang berkaitan dengan tenaga pengajar. Sistem ini berguna untuk menguruskan semua hal-hal yang berkaitan dan maklumat penting seperti perjumpaan atau pun memo. Selain itu, pelajar juga dapat menggunakan sistem ini untuk akses kepada data-data mereka. Hanya pelajar yang berdaftar sahaja dapat menggunakan sepenuhnya sistem ini, jika tidak sistem dalam talian ini hanya berfungsi untuk menyampaikan maklumat sahaja.

Waterfall Software Development Methodology digunakan dalam pembinaan sistem ini. Semua bahagian yang perlu dilalui adalah keperluan, analisis sistem, pembinaan, penggunaan aplikasi dan percubaan sistem serta penambahbaikan. Akhir sekali, diharapkan Driving School Information System (DriSIS) ini boleh menyumbangkan kepada penambahbaikan sistem sekolah memandu yang sedia ada.

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CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

Driving School Information System (DriSIS) is developed mainly for driving school to manage the operation more efficient, easily to find data, record keeping more efficient and retrieve data faster. This system will be managed by the staff of driving school. This staff is responsible to the instructor and students records. The problem comes when the records are increasing and it is not systematic anymore to keep all the data in the file systems anymore. As example there are data on 5 years operation of the driving school center kept in files that fill half of the room and maybe there are 5 years

of data to come and all the files have to be keep. It is impossible for the driving school to enlarge its building just to add room to store all this files. By using this kind of system, to keep all of data in order and securely where only the authorize staff can access it seems can give more problems. Besides that, if any unexpected incident or disaster happens, for sure all of this data will vanish. Although there is new driving school using online system to manage all of these records, it is still not efficient enough. Besides this kind of problem, driving school also always having problem in term communication among all of instructor and also its students. Normally the instructor itself will contact their students to inform information about class, examination or anything related to their driving lessons. This method not practical anymore today because it is will involve a lot of money and time. So I'm proposing for the school using SMS Notification system that included in this system. For the driving school that already have their own online system, many of them using that online system just as the medium to give information about their driving school and new student registration. This online system should be need included others extra features which is can help the driving school management.

This system only used for management of the driving school, not relate to any examination. Only the result of examination will be key in and stored with this system. This is because examination will handle by the Jabatan Pengangkutan Jalan (JPJ) itself, where it is not control by driving school. For the SMS Notification, it will depends to the phase of learning process. Normally this SMS Notification will be used for three time for every student. It is during the reminder for class and seminar, examination date and the last is to inform their result whether pass or not.

So, this Driving School Information System will be developed as a solution for the entire problem. The Driving School Information System will keep all the information of the daily driving school center operation which is from the instructor's records, schedule, notification system and many more. Besides than that, Driving School Information System will keep track all of the operation information securely and orderly and even with backup option. It is also can make the management easy for searching and retrieving data, and making changes to all stored data. While in term of cost, they

can reduce a lot of money by using SMS Notification system. Normally the instructors need to call and send short messaging message to their students, but with this system the admin of this system will send of that notification to the student's mobile phone.

1.1 PROBLEM STATEMENT

- I. Communicating with numbers of students at one time.

Driving schools that handle many students at one time face problem communicating with student for their driving class schedule or exam. Looking at this scenario, driving school have problem in communicating with their student if the number of student more than the available instructors.

- II. Tracking student progress.

Tracking progress of student takes times if staff handling many student at a time. Beside, staff can't easily remember each student progress. Normally there are no proper system to handle the progress. Everything by manual.

- III. Managing daily data.

Managing daily data is a basis of a system. Daily data of a driving school involve government procedures, policies and laws. Staff cannot neglect any single file or data.

1.2 OBJECTIVES

- I. To develop a driving school notification system that implement web-based and Short Message Service (SMS) technology to display related information and a reminder.
- II. To setting up and configure a web-based system that is more practical
- III. To integrate between the web-based systems and mobile device through a logical link that enable communication among the 2 components.

1.3 SCOPE

For this Driving School Information System (DriSIS), I separated it into three categories of user:

- I. Staff
Driving school staff, can access all data related to the students, instructor and vehicle information. This driving school staff have special privileges to the system because they can do whatever they should do like delete, add, or copy.
- II. Student
Driving school student, can access their own data. Only registered student can have access to the database. The only method is through the website.
- III. Instructor
Driving school instructor, can access to the students lesson record.

1.4 THESIS ORGANIZATION

This thesis will consist of 6 chapters.

- I. Chapter 1 will discuss on introduction to system and project.
- II. Chapter 2 will explain about the review for the chosen project.
- III. Chapter 3 will discuss the approach and framework for the project.
- IV. Chapter 4 will document all processes that involve in the development.
- V. Chapter 5 will explain about the results and data analysis that had been acquired.
- VI. Chapter 6 will briefly summarize about the developed project.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter will discuss about article review of my project. Literature review is the summary of article that sourced from reliable article. This article review important because it is used to help the developer to build the system, so the developer get some knowledge of the strengths and limitation of the system. All of this helps the developer to choose the best way to develop the system. Researches and analysis an existing system or current system have to be done in order to build a good system. Good system always comes after enhancement of existing system. For this project, literature review serves the purpose of gathering information related to the development of driving school management system. This review will focus on the current existing system. The

result of the review will serve to better equip the developer with knowledge relevant or essential in the design and planning of the system. It will also discuss the approach that will be used for this project and related research and information about the approach, methodology and tools that will be used to develop this project.

Besides that, literature review serves the purpose of gathering information related to the development of Driving School Information System (DriSIS). This review will focus on the method how the system will operate by implementing some technologies.

2.1 FACTS AND FINDING

The main purpose of this study is to identify the problems and drawbacks of current system. Apart from that this study is carried out to analyze the problems that occurred from the current system to come out with the solutions to overcome the regarding drawbacks. Then, it is purposely to study and analyze the management process and activities in order to identify the requirements of the future system. Next is to conclude the future system and to classify the main modules for the system.

2.2 EXISTING OF DRIVING SCHOOL ONLINE SYSTEM

This chapter will discuss about existing online system of driving school around Malaysia.

I. SKEM Driving Academy Sdn. Bhd.

Refer to figure 1, it show one of example of the current simple online system that is used by one of the driving school in Malaysia. This SKEM Driving Academy Sdn. Bhd. using their online system just to give information about their driving school to potential students. They are using seven main menus in their online system. The first one is front page. This front page will show all of recent promotion, package and announcement of

their driving school. In this front page also, there is login box for the instructor to access their email and memo. Then information menu where they will list all information that related to their driving school. Third is service where they list out all of service that they can provide like license application, campaign about road safety and consultation. The next is branch menu. In this menu they listed their entire branch that located around Kuala Lumpur. Then customer feedback form where their customer can post any feedback about this driving school whether it is good, neutral or bad. The last one is their contact details.



Figure 2.1 SKEM Driving Academy online system

This website only provide normal typical function like others online system. Although the system have function for instructor to access their email and memo, but student cannot fully utilize the online system. So this is can consider the online system main purpose only for the staff or instructor of this driving school.

II. Metro Driving Academy Sdn. Bhd.

The second online system is from Metro Driving Academy Sdn. Bhd. Refer to figure 2. Their online system also like normal online system that used by other driving school. They were using seven menus. The first menu is for their general information. Then the next menu is for their service. Here they listed all of their service like driving license program, advance training program, road safety education program, special service and consultancy service. Next menu is for their facilities information. In this menu they also were using graphics. The next is information about their franchise and branch. They list all of their franchise and branch here, all of it located around Kuala Lumpur. Beside of this menu is their map location and special package they provide.

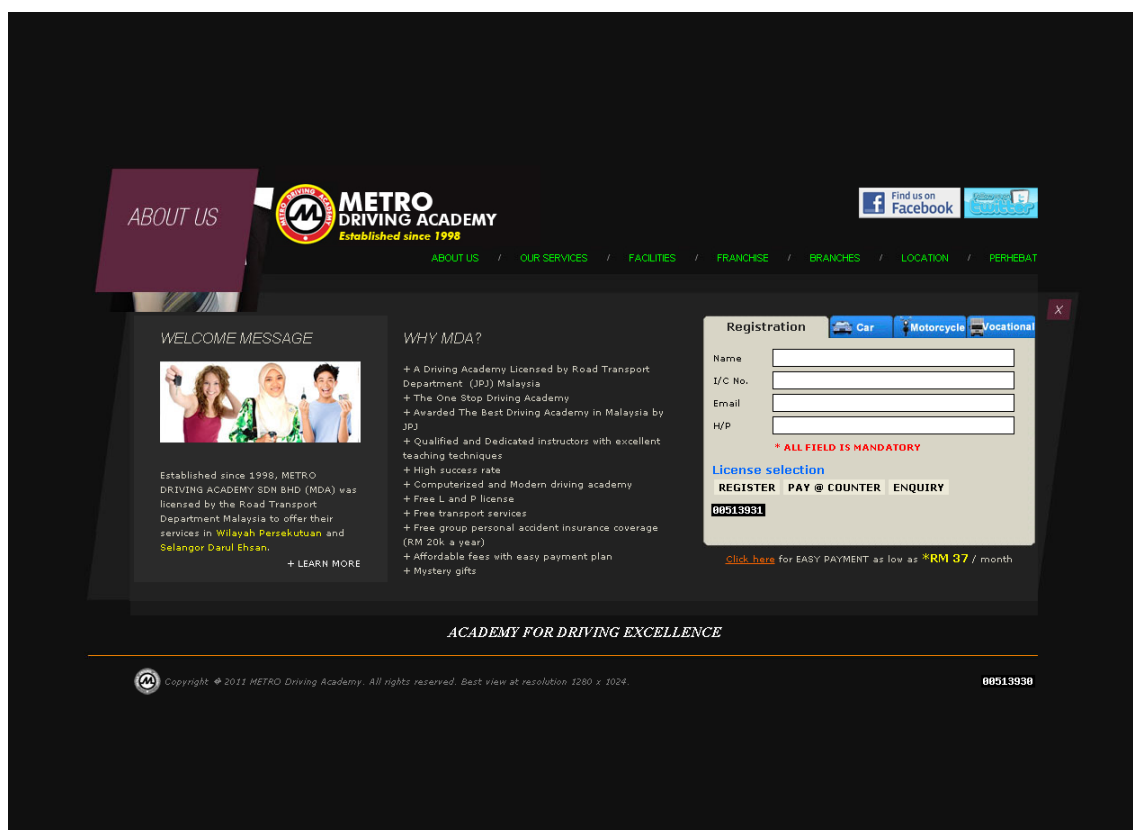


Figure 2.2 METRO Driving Academy online system

This online system that using by Metro Driving Academy Sdn. Bhd. also not too much different than SKEM Driving Academy Sdn. Bhd. online system. The different only their website can used by potential student to register if they interested to join their driving license program. This potential student just needs to fill in their information like name, email, identity card number and phone number. Then they can choose to register, pay at counter or enquiry.

III. Api-Api Driving Center Sdn. Bhd

Third online system for driving school reviewed is Api-Api Driving Centre Sdn. Bhd. This driving school only has six menus. Refer to figure 3 for detail view. First menu is for homepage. Here they show briefly information about their driving school, show some pictures about activities at their driving school and news. There is no login function for students or instructor. Next is menu where they stated information about their driving school with more details. After that is menu where they listed all types of license that student can register. For registration, the student need to go directly to the driving school, not like Metro Driving Academy where anyone that interested to join just fill in the online form.



Figure 2.3 Api-Api Driving Centre online system

Next is recruitment menu. Here is information about job vacancy of this driving school. Again, anyone interested to get job ad instructor at this driving school, need go directly to the driving school. Beside recruitment menu, it is news and event menu. Here they listed all current news and event about this driving school. The last is menu for their information details

This online system that used by Api-Api Driving Center also like others online system reviewed before this. The main purpose is just to give information about their driving school to potential students. There are nothing unique about this online system.

2.3 DISCUSSION

As mention earlier, there are three examples of driving school online system. First is SKEM Driving Academy, Metro Driving Academy and Api-Api Driving Center. All of this online system used to give information about their driving school. It is can considered as informative online system to public. They provide information on driving practical, policies and laws, process to gain driving license and also current issues on driving. This website is very informative but there is no communication between driving school staff, instructor and student.

Although all of the online system look similar, but some of the online system have unique function integrated. For SKEM Driving Academy, they have function for instructor or staff to access email and memo. This is only for registered staff or customer, not accessible to anyone that not registered. For the Metro Driving academy, they are having online form for the potential students to register if they interested to be a student. But for the Api-Api Driving Center, there is nothing unique.

Nowadays, an online system should be complete with functions. So it is convenient for the user of the system. Online system also should allow user to access to the system anywhere without having to install software to a specific desktop computers. In my opinion, it is a good solution for Driving School Information System (DriSIS) to be build as an online system.

2.4 TECHNOLOGY

On this part, I will review about the technology that I used to develop my system. Which are web application, GSM modem, and database server, programming language and web server.

2.4.1 PHP

PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. It is a powerful server-side scripting language for creating dynamic and interactive websites [1]. PHP is the widely-used and free. PHP is perfectly suited for Web development and can be embedded directly into the HTML code. The PHP syntax is very similar to Perl and C [2]. PHP is often used together with Apache web server on various operating systems. It also supports ISAPI and can be used with Microsoft's IIS on Windows. The most important thing is PHP is an open source application and 100% free. Here are some of advantage PHP that needed for my Driving School Information System (DriSIS) project:

- I. PHP is free, and open source
- II. PHP is much easier to learn, partly because it requires no adherence to a particular programming style like Java and others language programming language
- III. PHP runs on virtually any operating system (Windows, Linux and FreeBSD) and HTTP server while others language like Java requires an application server like Tomcat, WebSphere, WebLogic which are OS-dependent. Additionally, others language not always be portable between different application servers like PHP.
- IV. PHP natively integrates with a large array of database engines.

2.4.2 Short Messaging System (SMS)

SMS is a technology that enables the sending and receiving of message between mobile phones [3]. SMS capable of sending messages of up to 160 characters (224 characters if using a 5-bit mode) to mobile phone that uses Global System for Mobile (GSM) communications. The developed project involves alert and notification service to students and instructors, so this SMS method very suitable. This is because most of peoples nowadays have at least one mobile phone. It is also being carried by its owner most of the time and almost everywhere the owner go. The students and instructors can check the alert and notifications once it is receive to their mobile phone.

2.2.3 Online System

Generally, something is said to be online if it is connected to some larger network or system. In other words, the larger network usually refers the Internet. Therefore, 'online' describes the information that is accessible through the Internet. By using online system, it is easy for students or instructors to check any information they need to know, as long as there are internet connection available.

2.4.4 MySQL

MySQL is a relational database management system (RDBMS) based on SQL (Structured Query Language). It was first released in January 1998 and is now one component of parent company MySQL AB's product line of database servers and development tools. Many internet startups became interested in the original open source version of MySQL as an alternative to the proprietary database systems from Oracle, IBM and Informix. MySQL is currently available under two different licensing agreements which is the free of charge, under the GNU General Public License (GPL) open source system or through subscription to MySQL Network for business applications. There are many advantage of MySQL in term of speed, ease of use, capability, connectivity and security, query language support and cost [4].

2.4.5 SMS Gateway

SMS Gateway is the medium to send sms without using any gsm modem. Only Internet connection, account and a computer is needed. Users need to connect a mobile operator or an independent SMS service provider for an IP address, a port number, a username and a password. It is required to customize SMS Gateway according to the provided data. During the sms delivery, the gateway connects directly to SMSC. This causes fast messaging through wireless connection. The limited performance of GSM SMS (6 SMS per minute) increased here to 500 SMS sending per second with the help of SMS Gateway.

2.5 EQUIPMENTS

On this part, I will review about the equipments that needed for proposed system as stated below:

2.5.1 Web Server

Function of a web server is to deliver web pages on the request to clients. This means delivery of PHP documents and any additional content that may be included by a document, such as images, style sheets and scripts. In the proposed system, server needed to host webpage of the system. Besides that, it is needed to save all of related media like documents and database

CHAPTER 3

METHODOLOGY

3.0 METHODOLOGY

This chapter discuss the concept of methodology used for develop Smart Driving School System. This chapter also informs and describe about the System Development Life Cycle, software and hardware specification that are needed for implementation and develop the system.

3.1 INTRODUCTION

This chapter will explain methodology or step by step approaches to use in developing project and on the same time to fulfill all of requirement that needed to make

sure this project successful. Methodology very important to describe all of step to develop the system more detail. This methodology should be chosen early during the project planning. The methodology depends on requirements and on both the general project plans and the roadmap plan. The approach will be certainly affecting all of the planning for system development therefore it plays a huge part in system development as a foundation of the system. The project approach is not established until the project completed.

Development of Driving School Information System based on System Development Lifecycle (SDLC) to achieve the entire objectives. SDLC describes important elements of project development in a common and consistent way. It is an iterative process broken down into six phases. It is planning, system analysis, design, development, testing and maintenance.

3.2 SYSTEM DEVELOPMENT LIFECYCLE (SDLC)

System Development Lifecycle is a structured methodology used in the development of software products and packages. This methodology is used from the conception phase through to the delivery and end of life of a final software product. This methodology gives much advantage to Smart Driving School System.

3.3 MODEL USAGE/APPROACH

The model or approach here is used in developing this project.

3.3.1 Planning

One of the most important tasks in the development of software using the SDLC is gathering and defining the requirements for the project. In this Smart Driving School System, this requirement phase needed for me to investigate and communicate with

existing driving school in order to get related data about existing infrastructure, staff and student activities, schedule and so on.

Then from the data, I need to analysis it and choose the all of the requirement that I need to include in the software. I need to understand the flow of that driving school. If anything problem occur during this phase, I need go back to the driving school to get the data information again. Then again I need to go through the previous step to analysis and process the information. The outcomes from requirement phase are:

- I. A vision document as general vision of the core project's
This is needed for me to know the purpose of this online system for their operation. So Driving School Information System will be fully utilize by the driving school
- II. Requirements, key features, and main constraints.
This is important for me to know their specific requirement. Then I will know their weakness for existing online system
- III. A project plan, showing phases, iterations and major milestones.
After that, from the information gathered, it will process to move to next phase.

3.3.2 System Analysis

In this system analysis phase, I need to define the requirement from previous phase. Process analysis can be by observation, interview and many more. For this of Driving School Information System (DriSIS) I decided to observe and interview administrator of driving school. By this I can get most recent and updated problem in their system. So I can avoid the same problem in Driving School Information System (DriSIS).

The important thing for make sure my project running smoothly is study for the current process because the system must follow the requirements. The problems and constraints also defined by me in this phase. The new system must overcome a problem in current system [5].

3.3.3 Design

Design is very crucial in the whole development cycle. Any glitch in the design phase could be very hard to solve in the later stage of the system development. The logical system of the product is developed in this phase. Its include functional hierarchy diagrams, screen layout diagrams, tables of business rules, business process diagrams, and a complete entity-relationship diagram with a full data dictionary [6].

For Driving School Information System (DriSIS) development, in this phase, all design about interface, database and all that is required must done. If got some problem, it is must back start to the beginning. In this phase, MySQL System design also need to setup separately with PHP web interface.

3.3.3.1 Flowchart

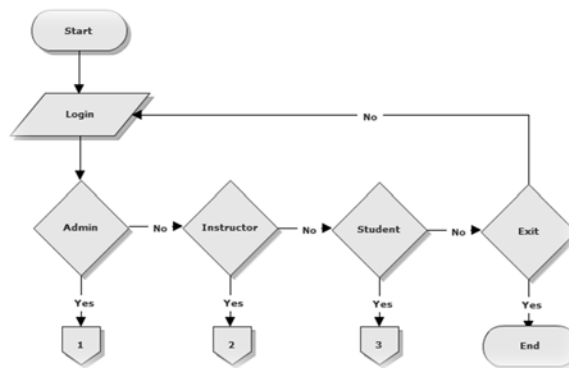


Figure 3.1 Flowchart in main page

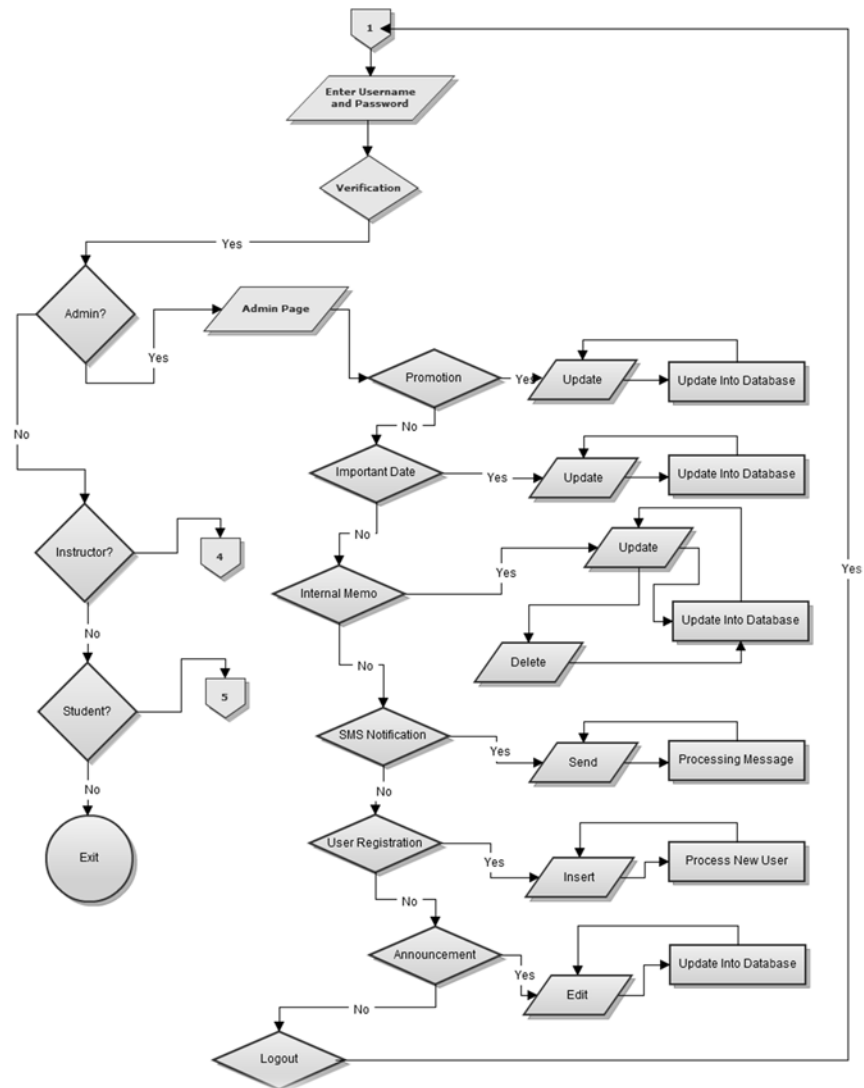


Figure 3.2 Flowchart in Admin Page

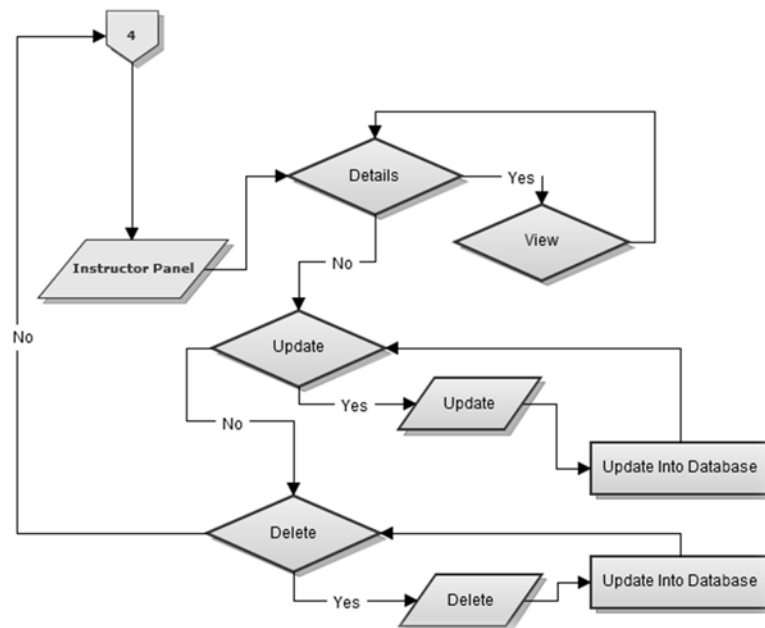


Figure 3.3 Flowchart Instructor Panel inside Admin Page

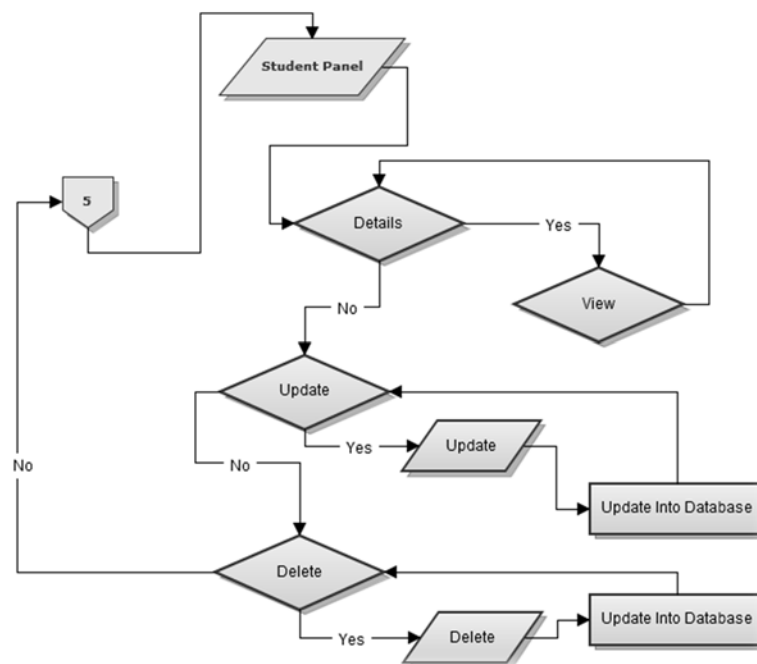


Figure 3.4 Flowchart Student Panel inside Admin Page

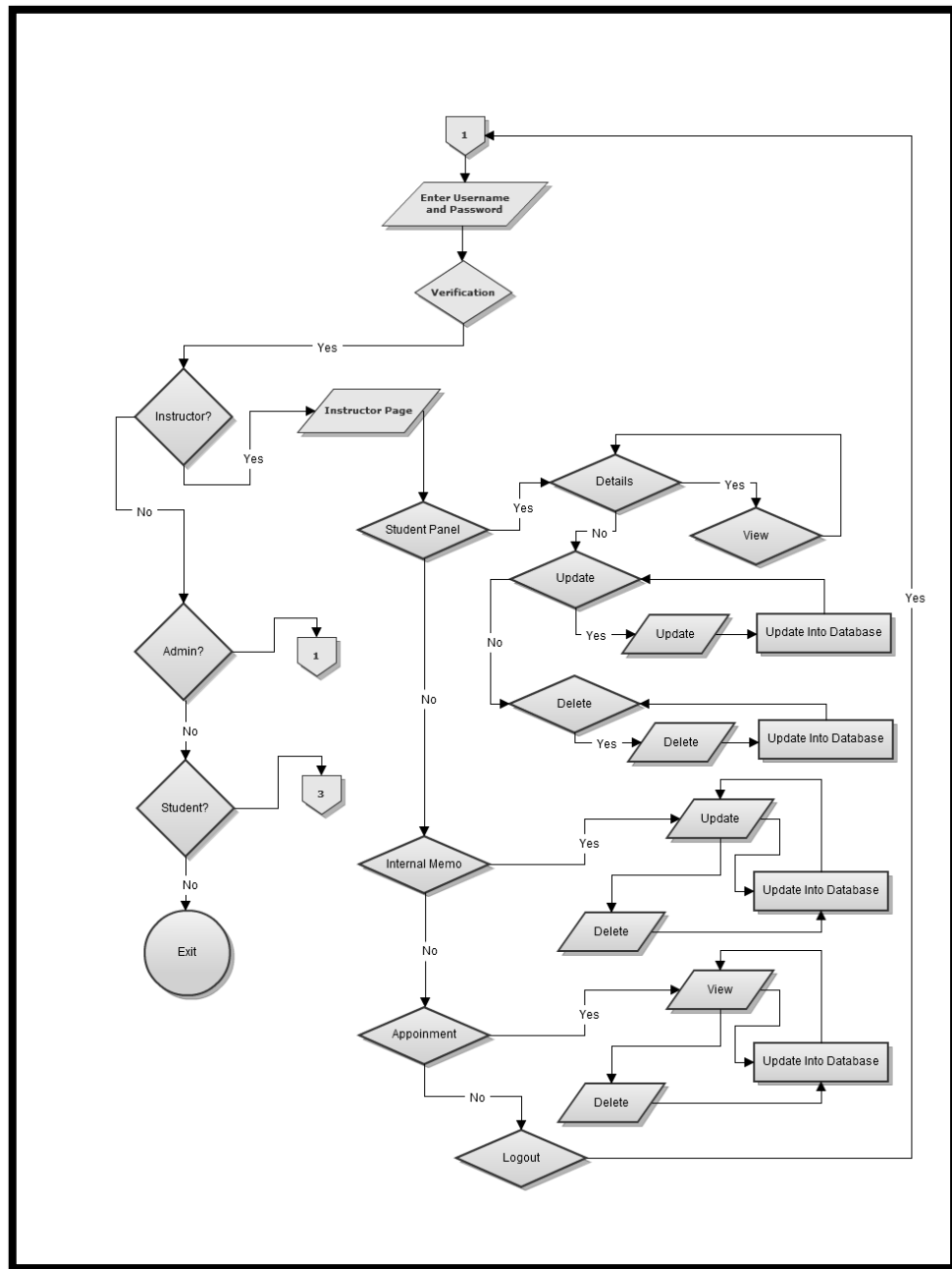


Figure 3.5 Flowchart in Instructor Page

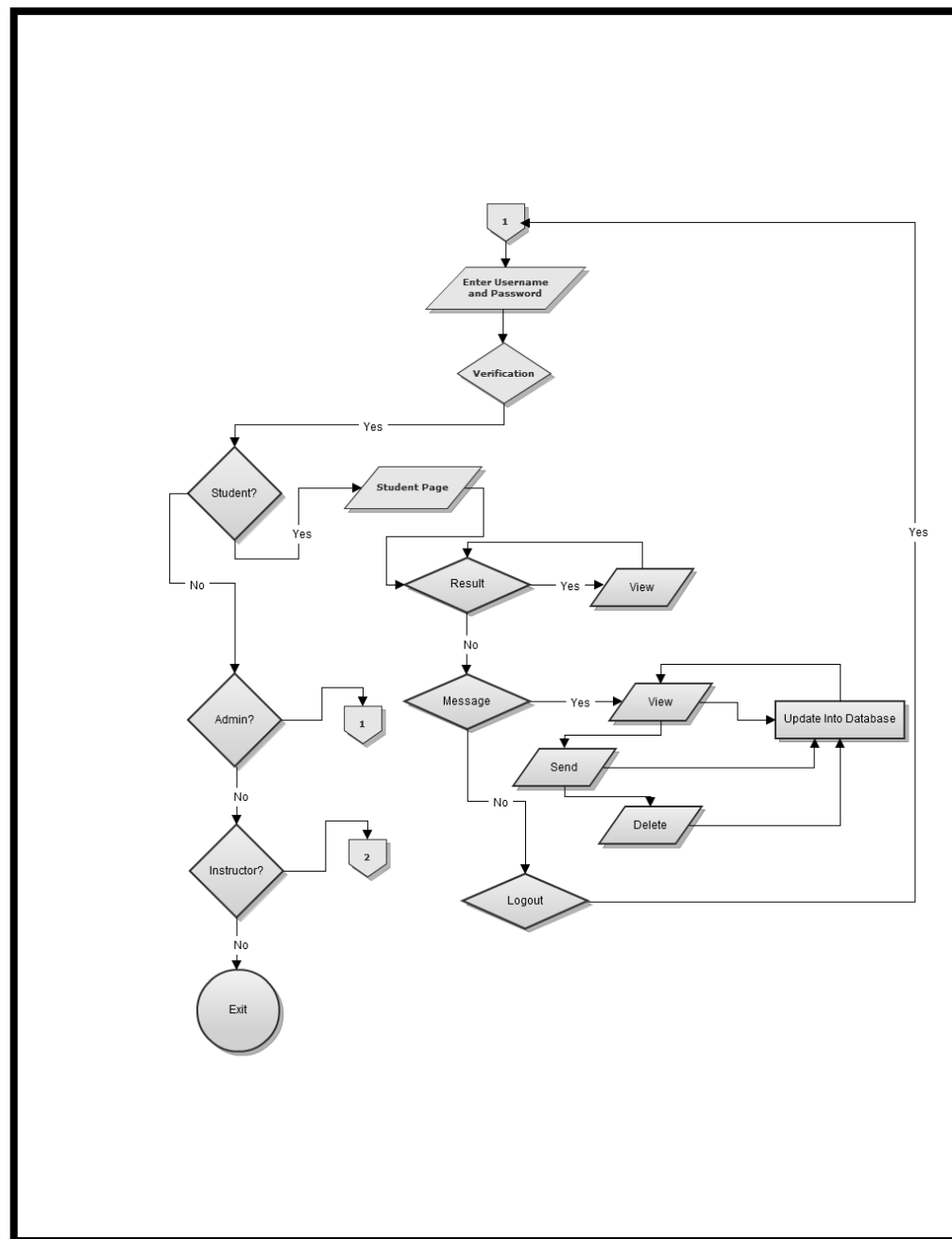


Figure 3.6 Flowchart in Student Page

3.3.4 Development

During this phase, Driving School Information System will focus into implement database system with PHP web interface. The aspects of the database implementation involved are Database Development, Database Access, Database Maintenance and Database Management and Administration. Then for the PHP web interface, it is need for the user interface.

Driving School Information System need user friendly user interface to make sure every user know how to handle the system. User will deal with this user interface to access all of the function that available in Driving School Information System (DriSIS). For sms notification function, it is integrated with the system. Only Internet connection, account and a computer is needed. Users need to connect a mobile operator or an independent SMS service provider for an IP address, a port number, a username and a password. It is required to customize SMS Gateway according to the provided data

3.3.5 System Testing and Maintenance

Once the coding for Driving School Information System is generated, the software program testing begins. This is a phase for testing and evolution. All the data have been load into the database. Its include test the database performance, integrity, and concurrent access and security constraints. The test conditions conducted by comparing expected outcomes to actual outcomes [7].

For Driving School Information System (DriSIS), all of the requirement must meet what the user want like the data input, output, notification system, schedule and so on. If the result not what the user want, then need go back to the previous phase. If all of the requirement meet what user want, then maintenance support should given to user. In case got glitch or error while user use the system, then need back to design phase again.

3.4 PROJECT REQUIREMENT

3.4.1 Development Tools

The development tool or software specified here is use in developing this project.

3.4.1.1 Adobe Dreamweaver

In designing the Smart Driving School System, Adobe Dreamweaver is a most suitable and powerful WYSIWYG site building tool. It is most suitable tools to develop an online system like my project, Driving School Information System (DriSIS). Adobe Dreamweaver have many features, and most important for my project is:

- I. MySQL database support
It is includes high-end features for creating database-driven web site. It is integrated with a PHP programming language and MySQL and other database support. It is customizable and I may set preferences controlling how and to what extent accessibility is coded.
- II. Ease and efficiency for use
It have the ability to select different views when creating web pages for my project. A 'code view' shows only the html code for the page. A 'design view' gives an indication of how the html page will appear in a browser. 'A split view', as the name implies, allow me to see the code view and design view at the same time. Both views are updated automatically as changes are being made and I can immediately see the effect of any changes.
- III. The ability to create consistent looking
It also includes feature to create template to assist in the design process. Template files can be created by me at any time. This feature makes it possible for me to reduce the time taken to complete the project as the workload is reduced. With this feature, my project interface will have a consistent style and therefore be more users friendly.
- IV. Easy to upload using FTP

Dreamweaver software comes with built in FTP features so it is possible to upload files directly to my website. By this feature also make my work easier because it is reduce the time taken by me if using normal upload method.

3.4.1.2 Adobe Photoshop

It is used in Driving School Information System (DriSIS) development for picture and image editing. Adobe Photoshop allow me to design the interface more efficiently, I already have basic knowledge and know how to use this Adobe Photoshop, so I know every function that available in it. Besides that, it also has many features that can make my project smooth. Some of the features that important for my project are:

I. Image creation software as well as an editor.

Photo shop can create any effect or style needed in a drawing or painting or layout. There are no graphic software that can do specialized work faster and more efficient than Adobe Photoshop. So in order to make my project finish in time, Adobe Photoshop is the best choice.

II. Vector drawing support

Photo shop is best with images that have complex textures, blends and photo realism, but Photo shop is also very good at vector drawing as long as the image doesn't need to be scaled and you don't need specialized CAD drawing tools. Then the image for sure very sharp. It is important because my project based on web system. Sometimes different user using different monitor resolution. So by this vector support, interface of my project user friendly to everyone.

3.4.2 Operating System/Server

The Operating System use to develop this project is Window Seven Ultimate. This E-Driving School is an online or a web based system, so it is requires web server and database server tools. I choose this Windows Seven Ultimate because much software nowadays needed high requirement in order to make sure the software running smoothly.

3.4.3 Programming/Scripting Language

The programming/scripting language specified here used in developing this project.

3.4.3.1 PHP Programming Language

Driving School Information System using PHP as main platform for the online system. PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. It is a powerful server-side scripting language for creating dynamic and interactive websites. PHP is the widely-used and free. PHP is perfectly suited for Web development and can be embedded directly into the HTML code. The PHP syntax is very similar to Perl and C. PHP is often used together with Apache web server on various operating systems. It also supports ISAPI and can be used with Microsoft's IIS on Windows. The most important thing is PHP is an open source application and 100% free. Here are some of advantage PHP that needed for my Driving School Information System (DriSIS) project:

- I. PHP is free, so instead of spending money on software licenses, I can use it for another purpose that more important for my project
- II. PHP is much easier to learn, partly because it requires no adherence to a particular programming style like Java and others language programming language. This is important because maybe I need to add on some new feature to my project, then I need to learn the feature coding from basic.
- III. PHP runs on virtually any operating system (Windows, Linux and FreeBSD) and HTTP server while others language like Java requires an application server like Tomcat, WebSphere, WebLogic which are OS-dependent. Additionally, others language not always be portable between different application servers like PHP. This is important because sometime I need to test my project to others computer.
- IV. PHP natively integrates with a large array of database engines. In my case, im using My SQL as the database for my project.

3.4.3.2 My SQL Database System

MySQL nowadays widely use as database platform. It is suitable for my project because PHP also can integrate with MySQL database. There are many reason why I choose MySQL. This is some of the reason:

- I. Ease of use.
MySQL is a high-performance but relatively simple database system and is much less complex to set up and administer than larger systems. All of the syntax can be understood by me. If got some new feature that use new syntax, it would be much easier than others database system.
- II. Query language support
It is also understands SQL (Structured Query Language), the standard language of choice for all modern database systems.
- III. Capability.
The MySQL server is multi-threaded, so many clients can connect to it at the same time. Each client can use multiple databases simultaneously. So user of my system can access MySQL interactively using several interfaces that let the me and user enter queries and view the results.
- IV. Connectivity and security
Besides that, it is fully networked, and databases can be accessed from anywhere on the Internet, so user can share your data with anyone, anywhere. But MySQL has access control so that one person who shouldn't see another's data cannot. To provide additional security, MySQL supports encrypted connections using the Secure Sockets Layer (SSL) protocol. This is will provide to the administrator of this system later.
- V. Availability and cost.
MySQL is an Open Source project with dual licensing. First, it is available under the terms of the GNU General Public License (GPL). This means that MySQL is available without cost for most in-house uses. Second, for organizations that

prefer or require formal arrangements or that do not want to be bound by the conditions of the GPL, commercial licenses are available. But for this project, I can use the in-house uses lisence. It is an open source lisence.

3.4.4 Hardware Requirement

The hardware requirement here are used in developing this project

3.4.4.1 Workstation

In this system development, a workstation is the most important hardware. Table below explain the minimum requirements:

| Hardware | Minimum Specification |
|-------------------------------|----------------------------|
| Central Processing Unit (CPU) | Intel Pentium IV or higher |
| Memory Cache | 3MB |
| Random Access Memory (RAM) | 512MB |
| Hard Disk Space | 60GB |
| Network Transmission Speed | 100Mbps |

Figure 3.7 Workstation needed for the system

CHAPTER 4

IMPLEMENTATION

4.0 INTRODUCTION

This chapter will explain how this system developed until the end and highlight the main part of the system. Adobe Dreamweaver used as the main platform for the coding part, includes building and testing process. Main language for the system is PHP language. It is also supported by HTML and Javascript to make sure all of the function works perfectly. Besides than that, it is also used Mysql as the database storage and Xampp server as the platform when testing the system on localhost.

This chapter divided into two parts. In the first part, it will explain about the database configuration, implementation and followed by the coding part.

4.1 DATABASE CONFIGURATION AND IMPLEMENTATION

Every system that having data for sure need database in order to keep all of the related data. With this database, system can use data stored anytime needed. The system also can manipulate or adjust the data like add, insert, delete and edit. In this system, Xampp were used for the localhost server. It is because Xampp complete with all needed plugin like PhpMyAdmin, MySQL and FTP. In order to make sure the system running perfectly, database must be connected with the system engine which is the coding before the codes executing. In this system, it using only one database, named skem. Inside this skem database, there are only four table. This table named user_system, question_web, date, internal_memo and promotion.

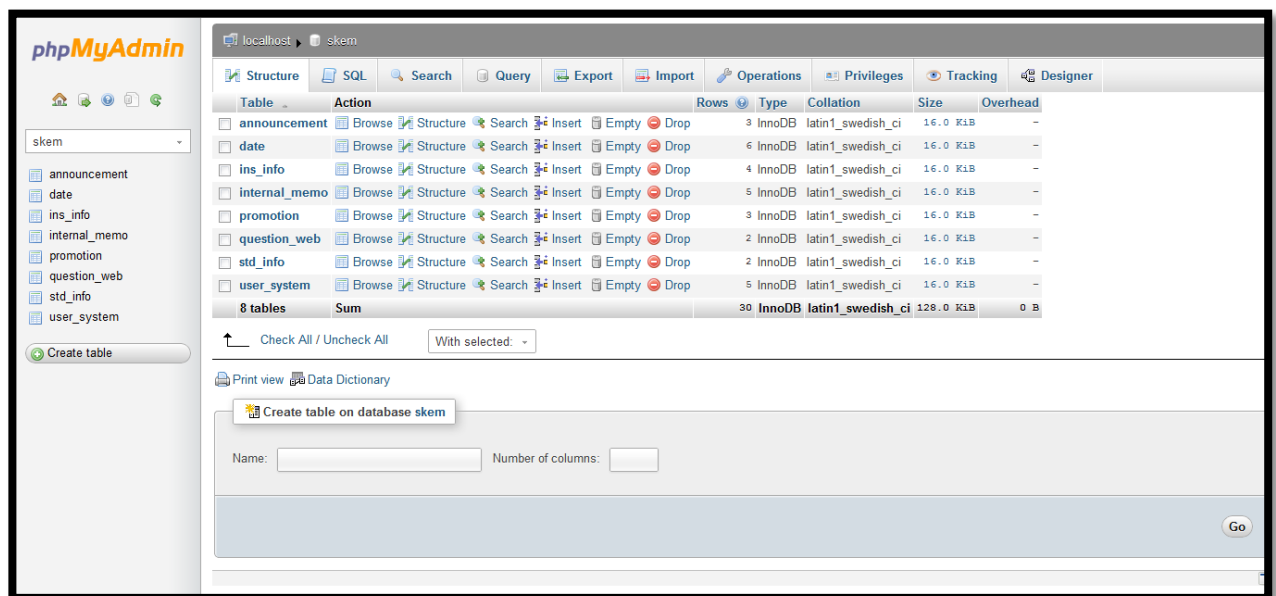


Figure 4.1 List of database table in PhpMyAdmin

4.2 INTERFACES AND SYSTEM PAGES

This online system has two categories. The first one is the web interface for information. Another interface is internal system which is for the admin, instructor and student. For the web, there are eight pages. It is home, introduction, mission and vision, facilities, services, pricing, branches and contact information.

4.2.1 Front Page – Login Box

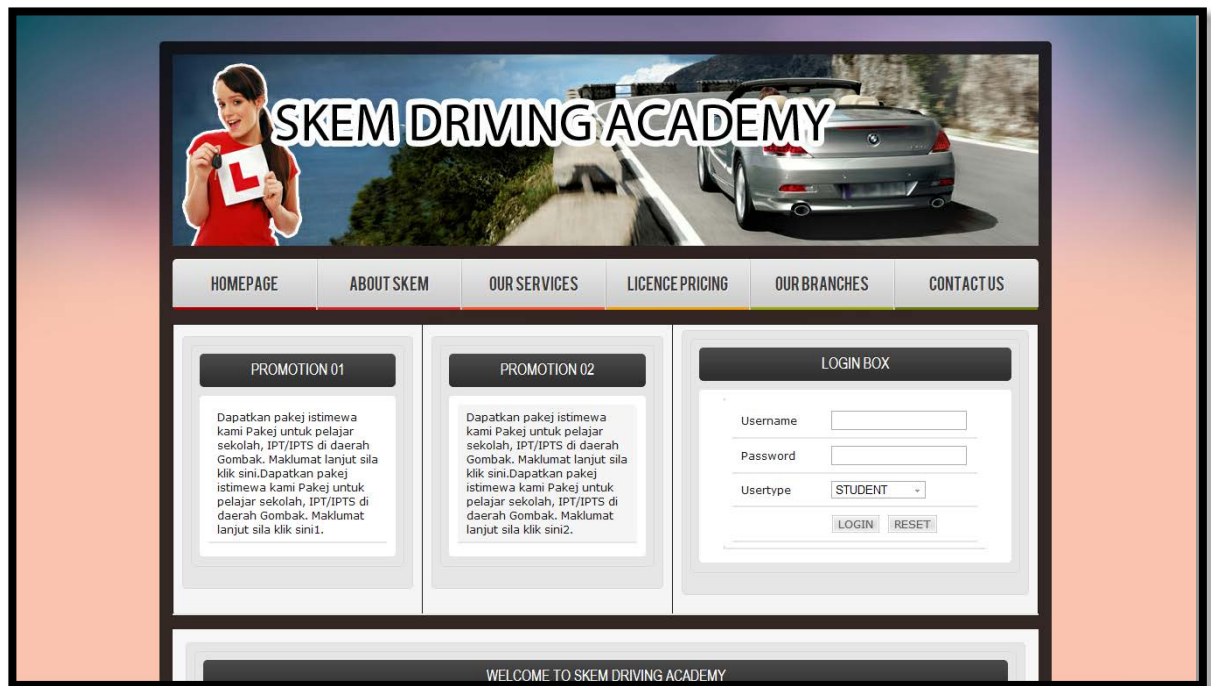


Figure 4.2 Front page of the system with login box

This is the main page of the webpage. In this webpage, there are two promotion boxes which is can edit by the admin. Besides this two promotion boxes, it is login box for the admin, instructor and student. These users were registered by the admin.

```
<table width="300" border="0" align="center" cellpadding="0" cellspacing="1" bgcolor="#CCCCCC">
```

```

<tr>
<form name="form1" method="post" action="checklogin.php">
<td>
<table width="100%" border="0" cellpadding="3" cellspacing="1" bgcolor="#FFFFFF">
<td width="40%" class="style6 style5">Username</td>
<td width="60%"><input name="myusername" type="text" id="myusername" /></td>
</tr>
<tr>
<td><span class="style6">Password</span></td>
<td><input name="mypassword" type="password" id="mypassword" /></td>
</tr>
<tr>
<td><span class="style6">Usertype</span></td>
<td>
<select name="myusertype">
<option name="myusertype" type="text" id="myusertype">STUDENT</option>
<option name="myusertype" type="text" id="myusertype">INSTRUCTOR</option>
<option name="myusertype" type="text" id="myusertype">ADMIN</option>
</select></td>
</tr>
<td></td>
<td><input name="Submit" type="submit" class="style7" value="LOGIN" />
<input name="Reset" type="reset" class="style7" value="RESET" /></td>
</table></td>
</form>
</tr>
</table>

```

Figure 4.3 Coding for login function

This is the coding for login box. Every user will given their own username and password. While login, they need to choose their category from the drop down menu. Process for check this login will be at another page named checklogin.php. If the user enter wrong username, password or category, they all will go to error page and asked to key in again. Besides that login box, there are promotion boxes. This promotion boxes relate with database named “promotion”. Admin can edit this box in Admin Panel.

Then there is welcome note for the user. Under this welcome note, there are three components. The first one is important date listing. This important date listing will show all of the important then in a week. So the student/user will not miss out any important date. Beside it is the live chat that can be use by anyone. Anyone can communicate

using this live chat without any registration. At the most left, there is two boxes that show video for the learning purpose.

4.2.2 Front Page – Important Date, Chat Box and Videos

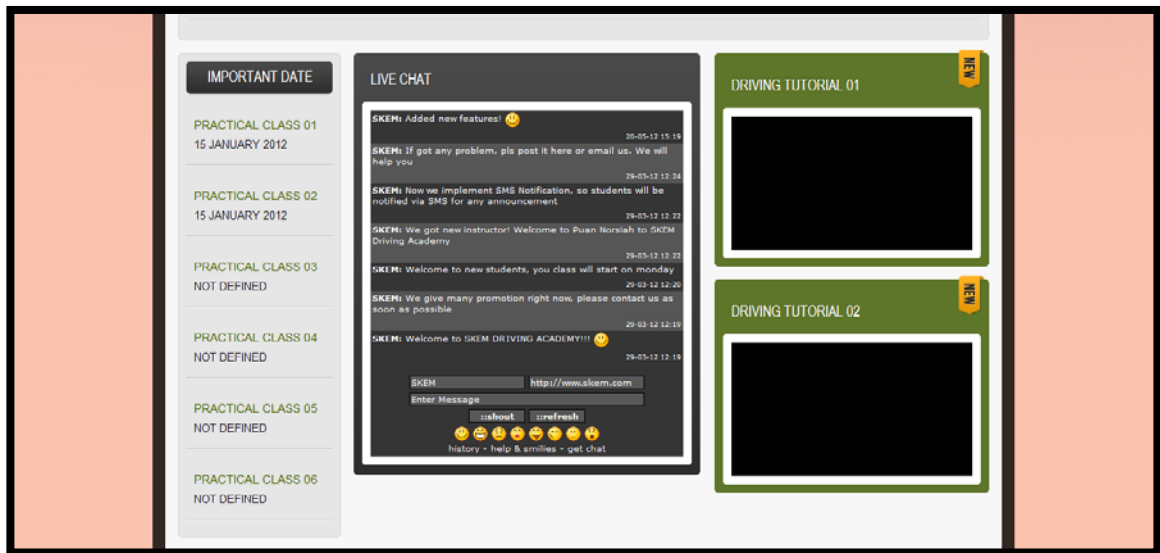


Figure 4.4 Front page of the system with important date and live chat

```
<div class="greyblock right_spacing15 fleft">
<center><h4 class="ttl nomar">IMPORTANT DATE</h4></center>
<ul class="gamebox_list">
<li>
<?
while($rows=mysql_fetch_array($result3)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
<? echo $rows['date']; ?>
<?
}
?>
<?
while($rows=mysql_fetch_array($result4)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
```

```

<? echo $rows['date']; ?>
<?
}
?>
</li>

<li>
<?
while($rows=mysql_fetch_array($result5)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
<? echo $rows['date']; ?>
<?
}
?>
</li>
<li>
<?
while($rows=mysql_fetch_array($result6)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
<? echo $rows['date']; ?>
<?
}
?>
</li>

<li>
<?
while($rows=mysql_fetch_array($result7)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
<? echo $rows['date']; ?>
<?
}
?>
</li>

```

```

</li>
<?
while($rows=mysql_fetch_array($result8)){
?>
<span class="style5 dropcaps"><span class="style14"><? echo $rows['event']; ?></span></span><br>
<? echo $rows['date']; ?>
<?
}
?>
</li>
</div>

```

Figure 4.5 Coding for important date

4.2.3 Introduction

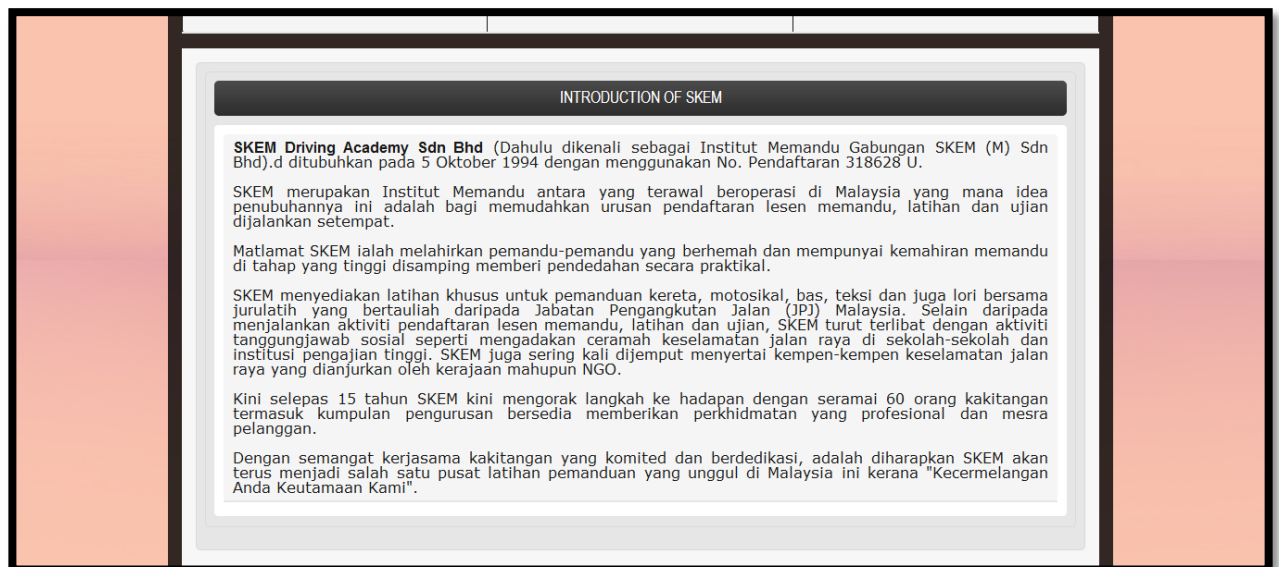


Figure 4.6 Page for introduction of SKEM Driving School

This introduction just show promotion available and the introduction of this SKEM Driving Academy

```

<table width="990" border="5">
<tr>
<td width="279">
<div class="greyblock">
<div id="gal_block1">
<div class="greyblock">
<h4 align="center" class="ttl">PROMOTION 01</h4>
<ul class="rec_comments_list">
<li>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tbody>
<tr>
<td class="style6">
<?
while($rows=mysql_fetch_array($result1)){
?>
<? echo $rows['content']; ?>
<?
}
?>          </td>
</tr>
</tbody>
</table>
</li>
</ul>
</div>
</td>
<td width="279">
<div class="greyblock">
<div id="gal_block1">
<div class="greyblock">
<h4 align="center" class="ttl">PROMOTION 02</h4>
<ul class="rec_comments_list">
<li>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tbody>
<tr>

```

```

<td class="style6">
<?
while($rows=mysql_fetch_array($result2)){
?>
<? echo $rows['content']; ?>
<?
}
?>          </td>
</tr>
</tbody>
</table>
</li>
</ul>
</div>
</td>
<td width="279">
<div class="greyblock">
<div id="gal_block1">
<div class="greyblock">
<h4 align="center" class="ttl">PROMOSI 03</h4>
<ul class="rec_comments_list"><li>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tbody><tr>
<td class="style6">
<?
while($rows=mysql_fetch_array($result3)){
?>
<? echo $rows['content']; ?>
<?
}
?>          </td>
</tr>
</tbody>
</table>
</li>
</ul>
</div>

```

```
</td>  
</tr>  
</table>  
<br />  
<div class="d-cont">
```

Figure 4.7 Coding for promotion boxes

4.2.4 Mission and Vision

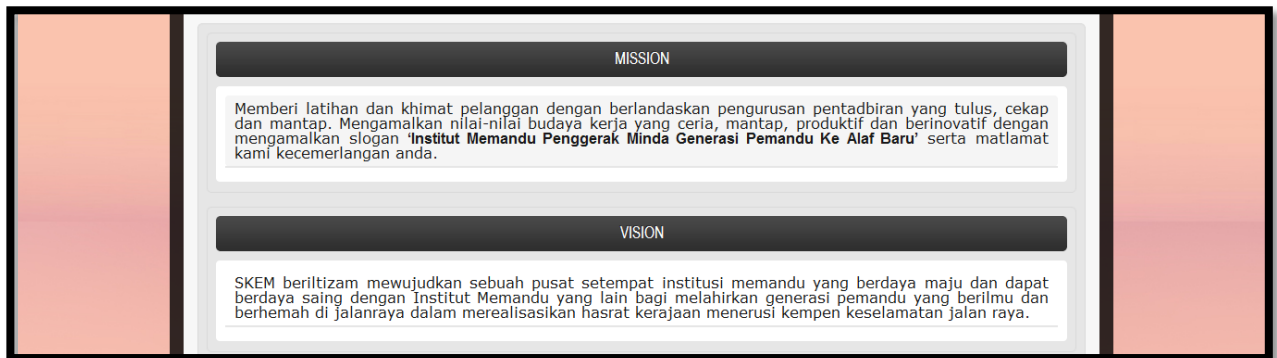


Figure 4.8 Mission and vision page

This mission and vision page just shows mission and vision for the SKEM Driving Academy. It is not relate to any table in the database

4.2.5 Facilities

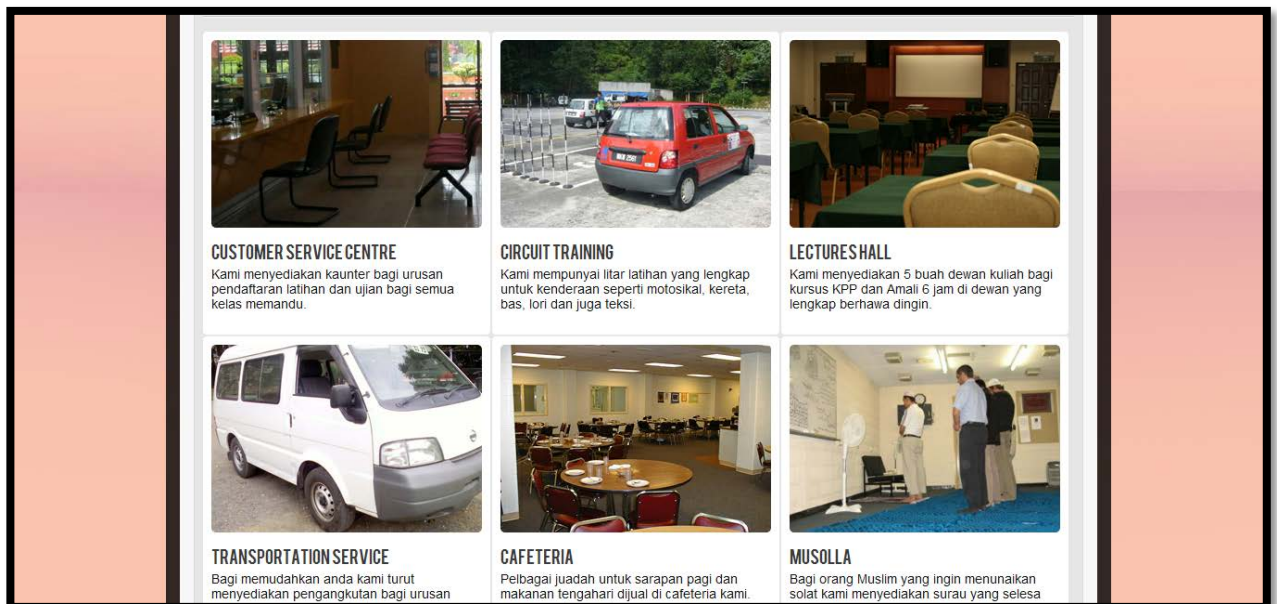


Figure 4.9 Facilities of SKEM Driving Academy page

This facilities page just show for the facilities that available at the driving academy.

4.2.6 Service

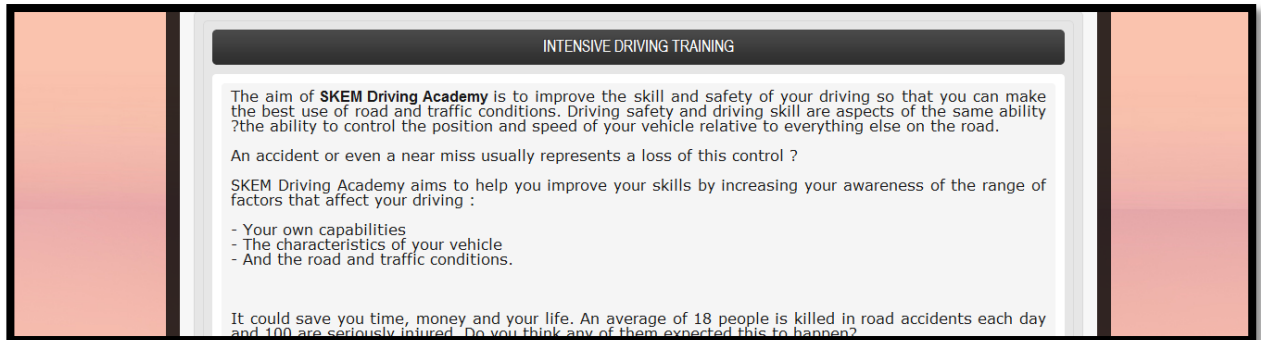


Figure 4.10 Service available at SKEM Driving Academy page

This service page just shows service that provide by SKEM Driving Academy for its students.

4.2.7 Pricelist

DRIVING LICENCE

This is the pricelist:

| Class | Description | Without 'L' Licence | With 'L' Licence | Additional Class |
|----------|--------------------|---------------------|------------------|------------------|
| D | Car only | RM 750 | RM 450 | RM 580 |
| B2 and D | Car and motorcycle | RM 950 | RM 600 | RM 750 |
| B2 | Motorcycle only | RM 400 | RM 200 | RM 300 |
| B | Motorcycle | RM650 | RM 450 | RM 550 |
| E | Lorry | RM 750 | | |

Vocasional

| Description | Price |
|-------------|--------|
| GDL | RM 170 |
| PSV Taxi | RM 350 |
| PSV Bus | RM 600 |

Pakej harga tersebut adalah merangkumi kos pendaftaran, kursus KPP, ujian bahagian 1 (undang-undang berkomputer), kursus pra L, belajar memandu 10 jam (kereta) @ 8 jam (motosikal), dan ujian JPJ bahagian 2 & 3. Tambahan bayaran dikenakan untuk lesen P 2 tahun (RM 70).

Kos untuk ulangan ujian bahagian 1 (undang-undang) adalah RM27 jika buat pada hari yang sama dan RM35 jika buat pada hari yang lain.

Kos untuk ulangan ujian bahagian 2 & 3 (JPJ) bagi kelas D adalah RM100 dan kelas B2 adalah RM60

Figure 4.11 Pricelist page

This pricing page just shows pricelist for every service/driving class that provide by SKEM Driving Academy for its students.

4.2.8 Contact Information

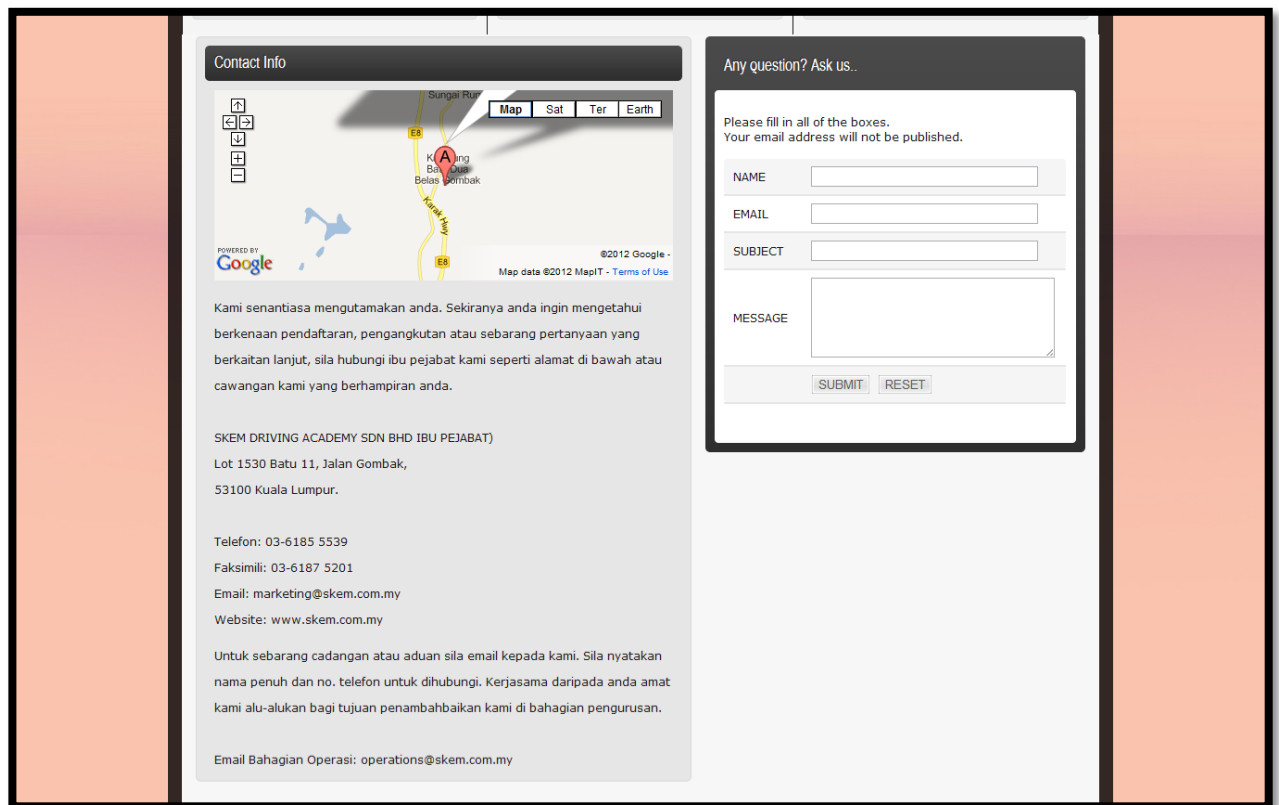


Figure 4.12 Contact information of SKEM Driving Academy

This contact page shows all of contact information of SKEM Driving Academy. In this page also, there is map for anyone that didn't know exact location of this driving academy. Besides than that, it also have form for user of this webpage to ask anything that related. The admin will reply all of the question through email.

```
<iframe width="495" height="205" frameborder="0" scrolling="no" marginheight="0" marginwidth="0"
src="http://maps.google.com/maps?f=q&source=s_q&hl=en&q=Gabungan+Skem+Sdn+B
hd,+Kampung+Batu+Dua+Belas+Gombak,+53100+Kuala+Lumpur,+Federal+Territory+of+Kuala+Lump
ur,+Malaysia&aq=&aq=&sll=19.236126,115.162168&sspn=46.770795,86.572266&ie=UT
F8&geocode=FQksMgAdQEwQBg&split=0&hq=&hnear=Gabungan+Skem+Sdn+Bh
d,+53100+Kuala+Lumpur,+Federal+Territory+of+Kuala+Lumpur,+Malaysia&t=m&z=14&am
p;ll=3.288073,101.731392&output=embed"></iframe>
```

Figure 4.13 Coding for the maps.

```

<div class="rightcol_contacts">
  <div class="gradientblock">
    <h4>Any question? Ask us..</h4>
    <div class="cont">
      <p><br />
      <span class="style6">Please fill in all of the boxes.<br />
      Your email address will not be published. </span></p>
      <table width="369" border="0">
        <form name="form5" method="post" action="contactcheck.php">

          <tr>
            <td width="84" class="style6">NAME</td>
            <td width="31"><label>
              <input name="name" type="text" id="name" size="35" />
            </label></td>
          </tr>
          <tr>
            <td class="style6">EMAIL</td>
            <td><input name="email" type="text" id="email" size="35" /></td>
          </tr>
          <tr>
            <td class="style6">SUBJECT</td>
            <td><input name="subject" type="text" id="subject" size="35" /></td>
          </tr>
          <tr>
            <td class="style6">MESSAGE</td>
            <td><label>
              <textarea name="message" cols="40" rows="5" id="message"></textarea>
            </label></td>
          </tr>
          <tr>
            <td>&nbsp;</td>
            <td><label>
              <input type="submit" name="button" id="button" value="SUBMIT" />
              <input type="reset" name="button2" id="button2" value="RESET" />
            </label></td>
          </tr>
        </form>
      </table>
      <p><br />
      </p>
    </div>
  </div>
</div>
<!-- /RightCol -->
<br class="clear" />
</div>

```

Figure 4.14 Coding for contact form

4.2.9 Admin Page

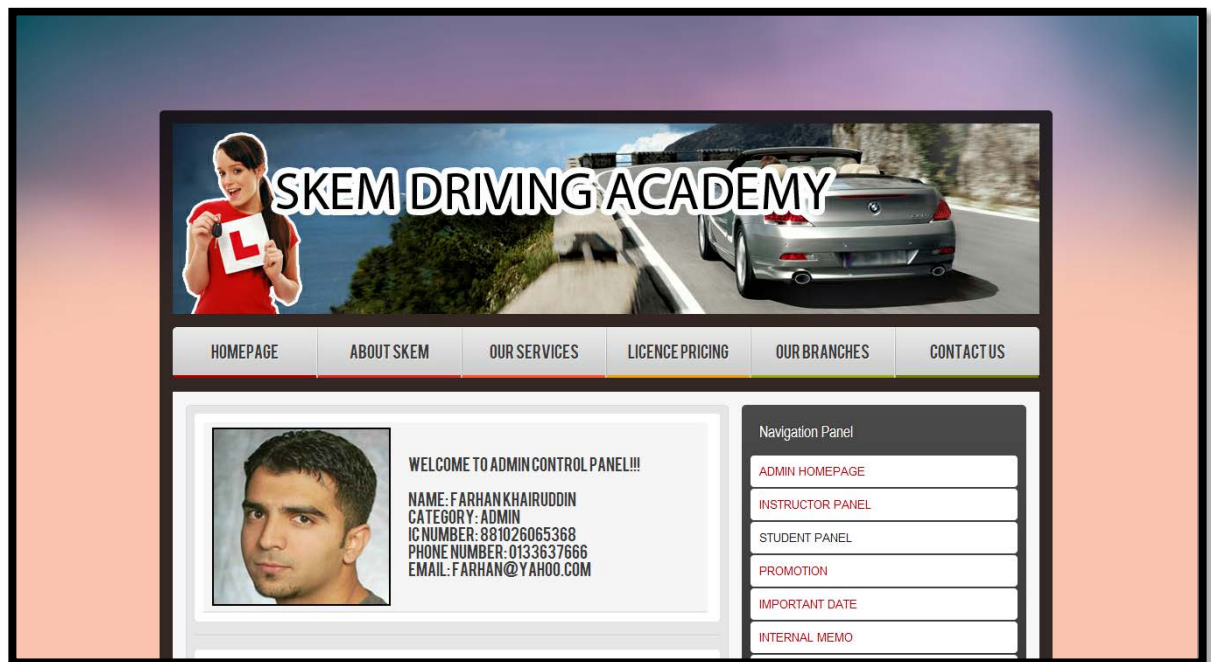


Figure 4.15 Detail view of the user (admin)

This is the main view for admin control panel. It will show name for the login user complete with picture and others information. This details change depends on admin, different admin got different information and picture. On the right situated all of the menus. Under this menu is internal memo that can view by all admin and instructor.

```
<?
while($rows=mysql_fetch_array($result3)){
?>
<input type="image" name="imageField" width="200" height="200" style="border:2px solid black"
alt="" class="pic_left" src="userpics/<? echo $rows['ic'];?>.jpg"/>
<?}
?>
<?
while($rows=mysql_fetch_array($result1)){
?>
WELCOME TO <? echo $rows['usertype']; ?> CONTROL PANEL!!!<br /> <br />
```

```

NAME: <? echo $rows['name']; ?><br />
CATEGORY: <? echo $rows['usertype']; ?><br />
IC NUMBER: <? echo $rows['ic']; ?><br />
PHONE NUMBER: <? echo $rows['phone']; ?><br />
EMAIL: <? echo $rows['email']; ?><br />
<?
}
?>

```

Figure 4.16 Coding for the information

4.2.10 Announcement Box

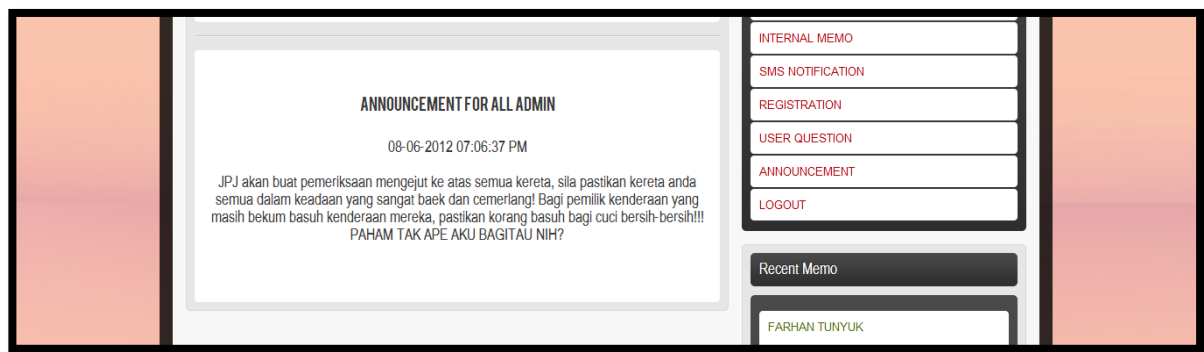


Figure 4.17 Announcement box

Below of that information, it is located announcement box for admin. This announcement box can be update only by admin. Instructor and student also have this kind of announcement box.

```

<?
while($rows=mysql_fetch_array($result5)){
?>
<h4 class="blog_head">ANNOUNCEMENT FOR ALL <? echo $rows['category']; ?></h4><br>
<h4><? echo $rows['time']; ?><br>
<br><? echo $rows['announcement']; ?><br class="clear" /><br /><br />
<?
}
?>

```

Figure 4.18 Coding for announcement box

4.2.11 Internal Memo

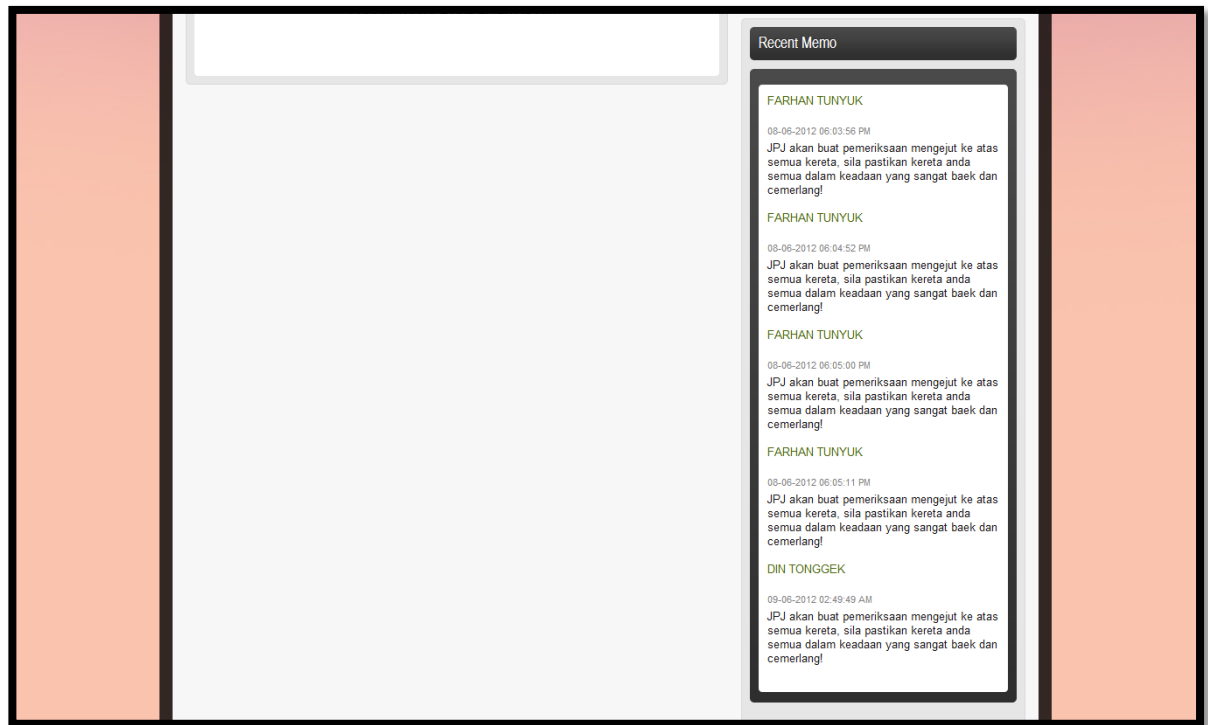


Figure 4.19 Internal memo

```
<?
while($rows=mysql_fetch_array($result2)){
?>
<span class="green"><? echo $rows['sender']; ?></span><br>
<br>
<span class="date"><? echo $rows['time']; ?></span><br class="clear" />
<? echo $rows['memo']; ?><br /><br />
<?
}
?>
```

Figure 4.18 Coding for internal memo

4.2.12 Registration

Figure 4.19 Registration of user page

This is the page for insert user. All of this information will saved into user system table in database. All of the user will differentiate based on ser category, which is admin, instructor and student

```
<table width="440" border="0" align="center" cellpadding="0" cellspacing="1">
<tr>
<td width="435"><form name="form1" method="post" action="checkuseradd.php">
<table width="100%" border="0" cellspacing="1" cellpadding="3">
<tr>
<td colspan="3" class="style6"><strong>Please fill in the required space</strong></td>
</tr>
<tr>
<td width="114" class="style6">Name</td>
<td width="18">:</td>
<td width="264"><input name="name" type="text" id="name" width="250"></td>
```

```

</tr>
<tr>
<td width="114" class="style6">IC Number</td>
<td width="18">:</td>
<td width="264"><input name="ic" type="text" id="ic" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">Address01</td>
<td width="18">:</td>
<td width="264"><input name="address1" type="text" id="address1" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">Address02</td>
<td width="18">:</td>
<td width="264"><input name="address2" type="text" id="address2" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">Phone Number</td>
<td width="18">:</td>
<td width="264"><input name="phone" type="text" id="phone" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">E-Mail</td>
<td width="18">:</td>
<td width="264"><input name="email" type="text" id="email" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">Driving Class 1</td>
<td width="18">:</td>
<td width="264"><input name="drivingclass1" type="text" id="drivingclass1" width="250"></td>
</tr>
<tr>
<td width="114" class="style6">Driving Class 2</td>
<td width="18">:</td>
<td width="264"><input name="drivingclass2" type="text" id="drivingclass2" width="250"></td>
</tr>

```

```

<tr>
<td width="114" class="style6">Username</td>
<td width="18">:</td>
<td width="264"><input name="myusername" type="text" id="myusername" width="250"></td>
</tr>
<tr>
<td class="style6">Password</td>
<td>:</td>
<td><input name="mypassword" type="text" id="mypassword" width="250"></td>
</tr>
<tr>
<td class="style6">Category</td>
<td>:</td>
<td>
<select name="myusertype">
<option name="myusertype" type="text" id="myusertype">STUDENT</option>
<option name="myusertype" type="text" id="myusertype">INSTRUCTOR</option>
<option name="myusertype" type="text" id="myusertype">ADMIN</option>
</select>
</td>
</tr>
<tr>
<td colspan="3" align="center"><input type="submit" name="Submit" value="Submit">
<label>
<input type="reset" name="Reset" id="button" value="Reset" />
</label></td>
</tr>
</table>
</form>
</td>
</tr>
</table>

```

Figure 4.20 Coding for registration form

```

<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="user_system"; // Table name

// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

// Get values from form
$name=$_POST['name'];
$ic=$_POST['ic'];
$address1=$_POST['address1'];
$address2=$_POST['address2'];
$phone=$_POST['phone'];
$email=$_POST['email'];
$drivingclass1=$_POST['drivingclass1'];
$drivingclass2=$_POST['drivingclass2'];
$myusername=$_POST['myusername'];
$mypassword=$_POST['mypassword'];
$myusertype=$_POST['myusertype'];
// Insert data into mysql
$sql="INSERT INTO $tbl_name(name, ic, address1, address2, phone, email, drivingclass1, drivingclass2,
username, password, usertype)VALUES('$name', '$ic', '$address1', '$address2', '$phone', '$email', '$drivin
gclass1', '$drivingclass2', '$myusername', '$mypassword', '$myusertype' )";
$result=mysql_query($sql);

// if successfully insert data into database, displays message "Successful".
if($result){
session_register("myusername");
session_register("mypassword");
session_register("myusertype");

```

```

header("location:aduseradd.php");
}
else {
echo "ERROR";
echo "<a href='aduseradd.php'>Back to main page</a>";
}
// close connection
mysql_close();
?>

```

Figure 4.21 Coding for connect database with user registration

4.2.13 Promotion Boxes

The screenshot displays a web interface with a table titled "Please choose the right promotion box". The table has three columns: "Box Number", "Content", and "Update". It lists three promotion boxes, each with a description and an "Update Now" link. To the right of the table is a "Recent Memo" section containing three entries, each with a name, date, and a short message.

| Box Number | Content | Update |
|------------|--|----------------------------|
| 1 | Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini. Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini1. | Update Now |
| 2 | Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini. Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini2. | Update Now |
| 3 | Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini. Dapatkan pakej istimewa kami Pakej untuk pelajar sekolah, IPT/IPTS di daerah Gombak. Maklumat lanjut sila klik sini3. | Update Now |

Recent Memo

Khairul Azwan
2011-02-10 12:55:39
JPJ akan buat pemeriksaan mengejut ke atas semua kereta, sila pastikan kereta anda semua dalam keadaan yang sangat baik dan cemerlang!

Khairul Azwan
2011-02-10 12:55:39
JPJ akan buat pemeriksaan mengejut ke atas semua kereta, sila pastikan kereta anda semua dalam keadaan yang sangat baik dan cemerlang!

Khairul Azwan
2011-02-10 12:55:39
JPJ akan buat pemeriksaan mengejut ke atas semua kereta, sila pastikan kereta anda semua dalam keadaan yang sangat baik dan cemerlang!

Figure 4.22 Promotion box

This is page for admin edit current promotion. There are only three promotion can show at a time. So if got new promotion, admin must delete the earliest promotion in the table.

```

<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username

```

```

$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="promotion"; // Table name
// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

$sql="SELECT * FROM $tbl_name";
$result=mysql_query($sql);
?>

<table width="568" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="568">
<table width="553" border="0" cellspacing="0" cellpadding="0">
<tr>
<td colspan="3"><strong>Please choose the right promotion box</strong></td>
</tr>
<tr>
<td width="101" align="center">Box Number</td>
<td width="339" align="center">Content</td>
<td width="105" align="center">Update</td>
</tr>
<?php
while($rows=mysql_fetch_array($result)){
?>
<tr>
<td><? echo $rows['id']; ?></td>
<td height="10" align="char"><? echo $rows['content']; ?></td>
<td align="center"><a href="checkpromotion.php?id=<? echo $rows['id']; ?>">Update
Now</a></td>
</tr>
<?php

```

```
}  
?>  
</table>  
</td>  
</tr>  
</table>
```

Figure 4.23 Coding for show current promotion from database with edit link

4.2.14 Promotion Box Editing

Figure 4.24 Box for editing promotion box

This page for admin when edit current promotion.

```
<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="promotion"; // Table name
// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

// get value of id that sent from address bar
$id=$_GET['id'];
```



```

// Retrieve data from database
$sql="SELECT * FROM $tbl_name WHERE id='$id'";
$result=mysql_query($sql);

$rows=mysql_fetch_array($result);
?>
<table width="584" border="0" cellspacing="1" cellpadding="0">
<tr>
<form name="form1" method="post" action="checkpromotion2.php">
<td width="582">
<table width="100%" border="0" cellspacing="1" cellpadding="0">
<tr>
<td align="center"><strong>Content for promotion Box <? echo $rows['id']; ?></strong></td>
</tr>
<tr>
<td align="center" height="120"><textarea name="content" id="content" style="width:450px;
height:200px;"><? echo $rows['content']; ?></textarea></td>
</tr>
<tr>
<td align="center"><input name="id" type="hidden" id="id" value="<? echo $rows['id']; ?>" />
<input type="submit" name="Submit" value="Submit"/></td>
</tr>
</table>
</td>
</form>
</tr>
</table>
<?
// close connection
mysql_close();
?>

```

Figure 4.25 Coding for current promotion editing box

4.2.15 Important Date List

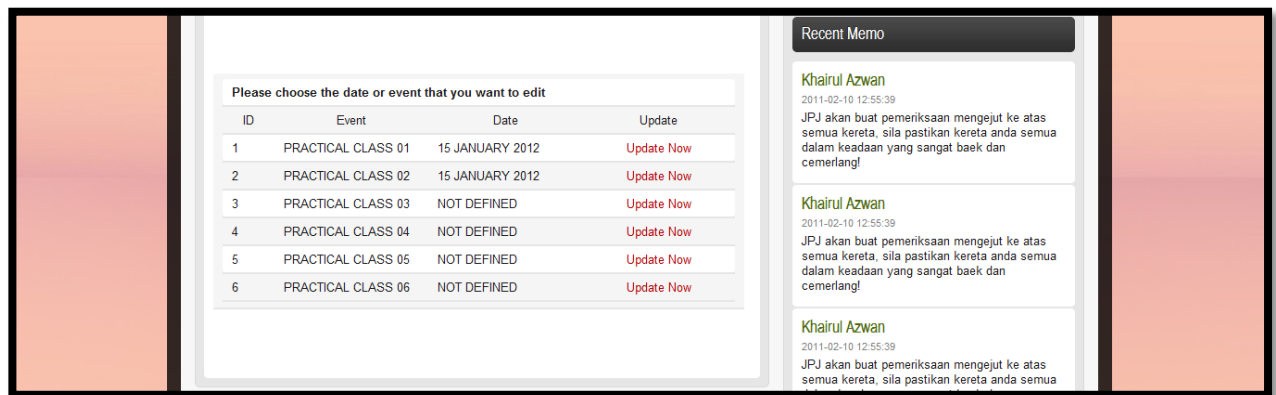


Figure 4.26 Update list important dates for main page

This page show list of important date from table date inside database. Here admin can edit current important date, complete with its date.

```
<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="date"; // Table name
// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

$sql="SELECT * FROM $tbl_name";
$result=mysql_query($sql);
?>
<table width="568" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="568">
```

```

<table width="553" border="0" cellspacing="0" cellpadding="0">
<tr>
<td colspan="3"><strong>Please choose the date or event that you want to edit</strong></td>
<td></td>
</tr>
<tr>
<td width="10%" align="center">ID</td>
<td width="30%" align="center">Event</td>
<td width="30%" align="center">Date</td>
<td width="30%" align="center">Update</td>
</tr>
<?php
while($rows=mysql_fetch_array($result)){
?>
<tr>
<td><? echo $rows['id']; ?></td>
<td height="10" align="char"><? echo $rows['event']; ?></td>
<td height="10" align="char"><? echo $rows['date']; ?></td>
<td align="center"><a href="checkimportantdate.php?id=<? echo $rows['id']; ?>">Update
Now</a></td></tr>
<?php
}
?>
</table>
</td>
</tr>
</table>
<?php
mysql_close();
?>

```

Figure 4.27 Coding for important date list

4.2.16 Important Date List Editing

Figure 4.28 Edit important date list

Here is the page where admin can edit the important date list. Before this page, admin must choose which list they want to update.

```
<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="date"; // Table name

// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

// get value of id that sent from address bar
$id=$_GET['id'];

// Retrieve data from database
$sql="SELECT * FROM $tbl_name WHERE id='$id'";
```

```

$result=mysql_query($sql);

$rows=mysql_fetch_array($result);
?>

<table width="584" border="0" cellspacing="1" cellpadding="0">
<tr>
<form name="form1" method="post" action="checkimportantdate2.php">
<td width="582">
<table width="100%" border="0" cellspacing="1" cellpadding="0">
<tr>
<td align="center"><strong>Content for <? echo $rows['event']; ?></strong></td>
<tr>
<td align="center" height="40">
EVENT NAME<br>
<input style="text-align:center" name="event" type="text" id="event" value="<? echo
$rows['event']; ?>" style="width:200px; height:50px;" /></td>
</tr>
</tr>
<tr>
<td align="center" height="40">
DATE<br>
<input style="text-align:center" align="center" name="date" type="text" id="date" value="<?
echo $rows['date']; ?>" style="width:200px; height:50px;" /></td>
</tr>
<tr>
<td align="center"><input name="id" type="hidden" id="id" value="<? echo $rows['id']; ?>" />
<input type="submit" name="Submit" value="Change"/></td>
</tr>
</table>
</td>
</form>
</tr>
</table>

```

```
<?
// close connection
mysql_close();
?>
```

Figure 4.29 Coding for edit the important date list

4.2.17 Internal Memo

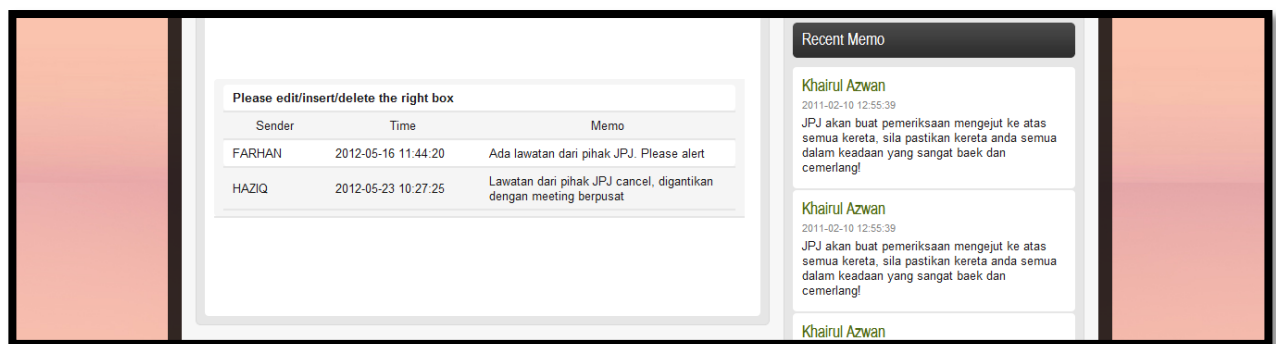


Figure 4.30 Internal memo

This is the page where admin show and edit the internal memo. This internal memo can view by admin and instructor only

```
<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="internal_memo"; // Table name

// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
```

```

mysql_select_db("$db_name")or die("cannot select DB");

$sql="SELECT * FROM $tbl_name";
$result=mysql_query($sql);
?>
<table width="568" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="568">
<table width="553" border="0" cellspacing="0" cellpadding="0">
<tr>
<td colspan="3"><strong>Please edit/insert/delete the right box<strong></td>
</tr>

<tr>
<td width="20%" align="center">Sender</td>
<td width="30%" align="center">Time</td>
<td width="50%" align="center">Memo</td>
</tr>
<?php
while($rows=mysql_fetch_array($result)){
?>
<tr>
<td><? echo $rows['sender']; ?></td>
<td><? echo $rows['time']; ?></td>
<td><? echo $rows['memo']; ?></td>
</tr>
<?php
}
?>
</table>
</td>
</tr>
</table>

```



```
<?php  
mysql_close();  
?>
```

Figure 4.31 Coding for internal memo

4.2.18 Question Form

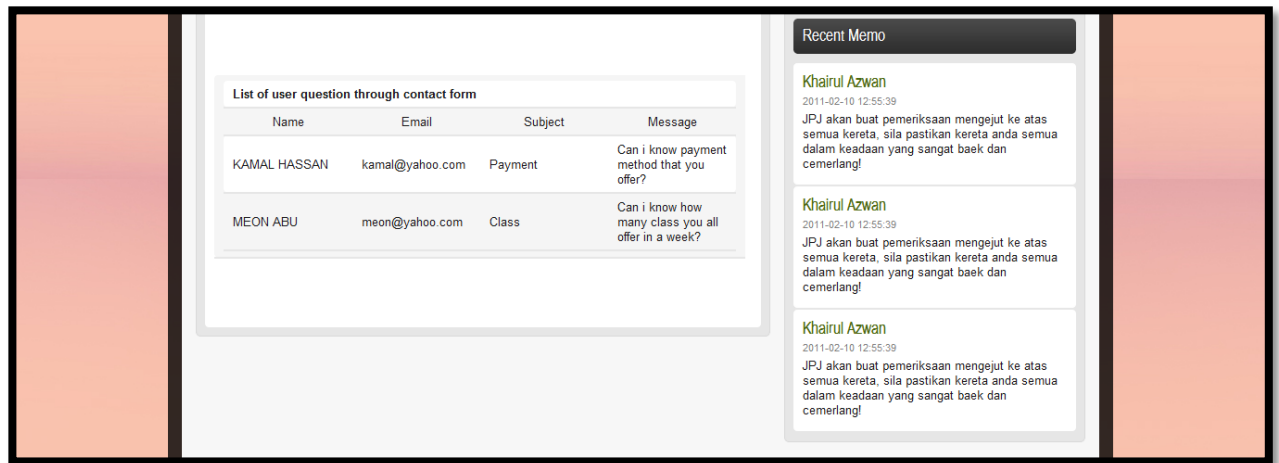


Figure 4.32 Question form information page

This is the page where admin can view all of message sent by user through contact page. It will list out the name, email, subject and the question. This list were called from question_web table in database

```
<?php
$host="localhost"; // Host name
$username="skem"; // Mysql username
$password="skem"; // Mysql password
$db_name="skem"; // Database name
$tbl_name="question_web"; // Table name

// Connect to server and select database.
mysql_connect("$host", "$username", "$password")or die("cannot connect");
mysql_select_db("$db_name")or die("cannot select DB");

$sql="SELECT * FROM $tbl_name";
```

```

$result=mysql_query($sql);
?>
<table width="568" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="568">
<table width="553" border="0" cellspacing="0" cellpadding="0">
<tr>
<td colspan="3"><strong>List of user question through contact form</strong></td>
<td></td>
</tr>

<tr>
<td width="25%" align="center">Name</td>
<td width="25%" align="center">Email</td>
<td width="25%" align="center">Subject</td>
<td width="25%" align="center">Message</td>
</tr>
<?php
while($rows=mysql_fetch_array($result)){
?>
<tr>
<td><? echo $rows['name']; ?></td>
<td><? echo $rows['email']; ?></td>
<td><? echo $rows['subject']; ?></td>
<td><? echo $rows['message']; ?></td>
</tr>
<?php
}
?>
</table>
</td>
</tr>
</table>

```

```
<?php
mysql_close();
?>
```

Figure 4.33 Coding for user question list

4.2.19 Instructor Page



Figure 4.34 Instructor page

This is the instructor page panel. From here instructor can view detail of student, schedule, send sms notification and view memo.

4.2.20 Student Page

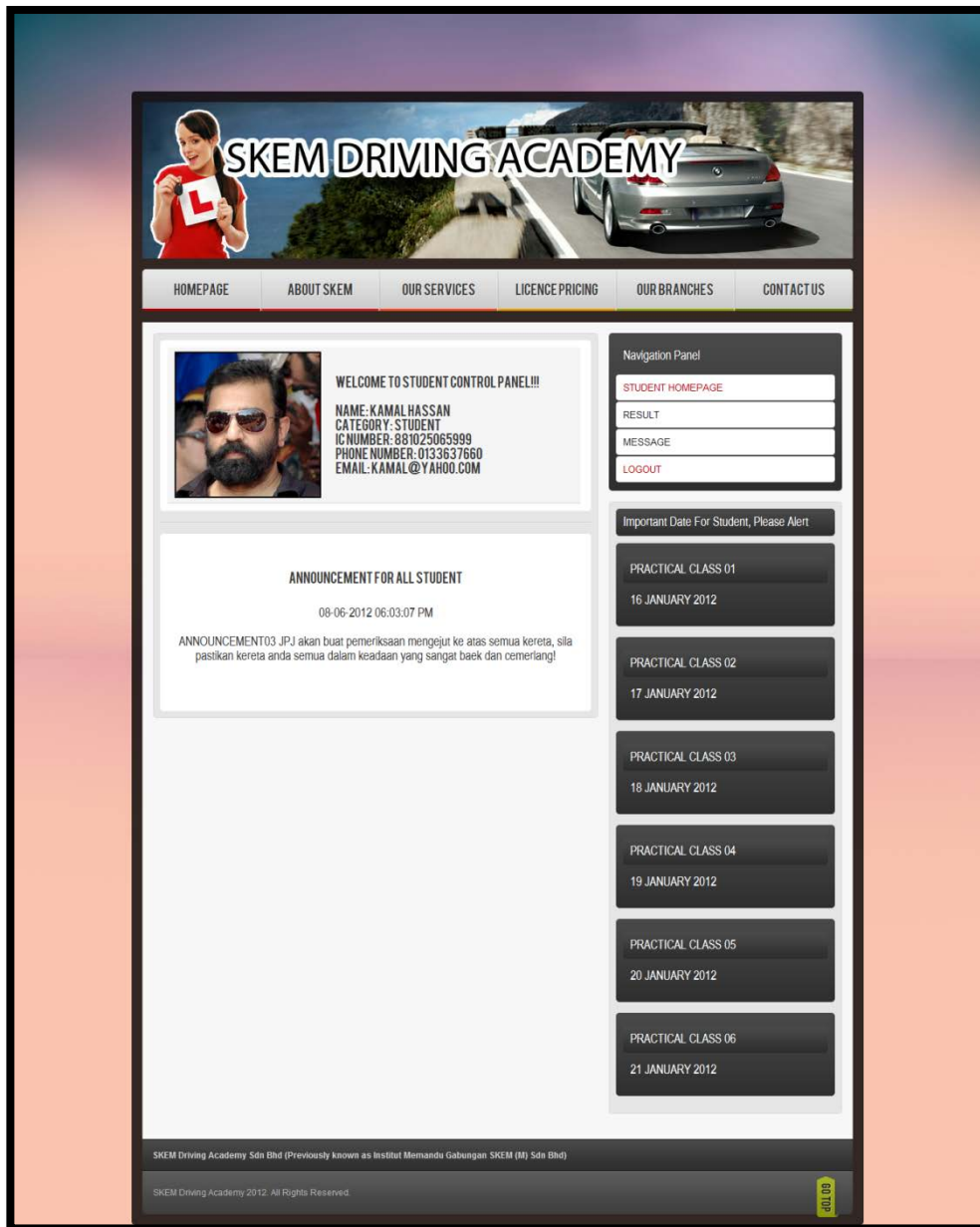


Figure 4.35 Student page

This is the student page panel. From here instructor can view schedule, result and appointment.

CHAPTER 5

RESULT, DISCUSSION AND CONCLUSION

5.0 INTRODUCTION

This chapter discuss about the result after the development and testing of Driving School Information System (DriSIS). Hopefully, this system discussion will bring out more interactive and effective system from the new developer.

5.1 RESULT AND DISCUSSION

After this system was testing, the developer found out that this system meets the objective that stated in chapter 1 before which:

- IV. To develop a driving school notification system that implement web-based and Short Message Service (SMS) technology to display related information and a reminder.
- V. To setting up and configure a web-based system that is more practical
- VI. To integrate between the web-based systems and mobile device through a logical link that enable communication among the 2 components.

But at this moment, the developer cannot finish part of sms notification. This system will be done with all the function on time given.

5.2 ADVANTAGES AND DISADVANTAGES

In any system development, there is must have advantages and disadvantages. On this system, the developer will explain briefly about the advantages and the advantages.

5.2.1 Advantages

Driving School Information System (DriSIS) built to enhance the existing online system. Before this system development, existing online system only was functioning to give information about the driving academy. This system enhances the function of that online system. So that, surely this system has advantages than previous system. All the function created can make this system run smoothly and effectively. Among of the advantages is:

- a) Instructor can communicate with its student by using the online system
- b) It can cut cost for send information through sms
- c) It give better management for data of the students
- d) It can reduce lost of data because all of the data keep well stored in database
- e) Give better communication between admin, instructor and students
- f) Students can check their result online, rather than calling or ask driving academy

5.2.2 Disadvantages

Although this system almost fulfills the user requirement, there are has the disadvantages or limitations. The disadvantage is this system cannot integrate with the main management system of Jabatan Pengangkutan Jalan (JPJ) because JPJ is the government organization. So all of the related information like mark for exam, schema of the test must be handle by them only.

Besides than that, this system also uses some component from outside source like the video, live chat and maps view. It will need more time to develop own module for this video, live chat and maps view.

5.3 CONCLUSION

As the conclusion, this Driving School Information System (DriSIS) is a system that develops using waterfall methodology. It is using six steps of phase, requirement, system analysis, design, implementation and system testing and maintenance. By using all of this phase in waterfall methodology, development of this system will be more systematic and can avoid any major problem. Besides that, development of this system also using several software like Adobe Dreamweaver and Adobe Photoshop. Adobe Dreamweaver is a powerful WYSIWYG site building tool. It is most suitable tools to develop an online system like this Driving School Information System (DriSIS). Then for Adobe Photoshop, it is used for picture and image editing. Adobe Photoshop allow me to design the interface more efficiently.

REFERENCES

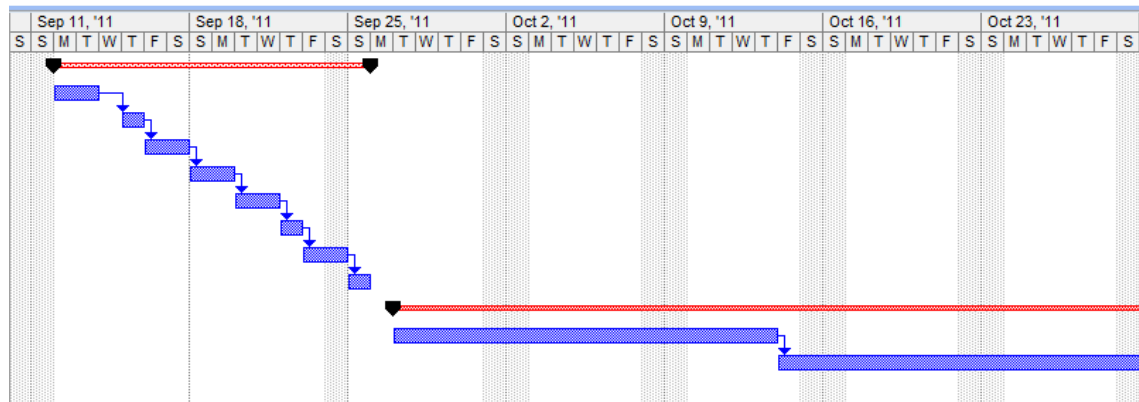
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APPENDICES

APPENDIX A

Gant chart PSM I

| | | | | | | |
|----|--|--|---------|--------------|--------------|----|
| 1 | | Project Requirement Planning | 13 days | Mon 9/12/11 | Sun 9/25/11 | |
| 2 | | Identify the title of project | 2 days | Mon 9/12/11 | Tue 9/13/11 | |
| 3 | | Identify the problem statement of project | 1 day | Thu 9/15/11 | Thu 9/15/11 | 2 |
| 4 | | Identify the objective of project | 2 days | Fri 9/16/11 | Sat 9/17/11 | 3 |
| 5 | | Identify the scope of project | 2 days | Sun 9/18/11 | Mon 9/19/11 | 4 |
| 6 | | Identify task | 2 days | Tue 9/20/11 | Wed 9/21/11 | 5 |
| 7 | | Estimate task duration | 1 day | Thu 9/22/11 | Thu 9/22/11 | 6 |
| 8 | | Develop analysis flow | 1 day | Fri 9/23/11 | Sat 9/24/11 | 7 |
| 9 | | Analysis software and hardware tools | 1 day | Sun 9/25/11 | Sun 9/25/11 | 8 |
| 10 | | User design system | 60 days | Tue 9/27/11 | Fri 12/16/11 | |
| 11 | | Chapter 1 : Introduction | 13 days | Tue 9/27/11 | Thu 10/13/11 | |
| 12 | | Chapter 2: Literature review | 26 days | Fri 10/14/11 | Fri 11/18/11 | 11 |
| 13 | | Chapter 3: Methodology | 15 days | Sat 11/19/11 | Thu 12/8/11 | 12 |
| 14 | | Chapter 4: Expected Result and Discussion | 3 days | Fri 12/9/11 | Tue 12/13/11 | 13 |
| 15 | | Chapter 5: Conclusion | 3 days | Wed 12/14/11 | Fri 12/16/11 | 14 |
| 16 | | Submission of draft thesis and PSM report to SV | 5 days | Mon 12/26/11 | Fri 12/30/11 | |
| 17 | | Submission of overview and log book to coordinat | 3 days | Wed 12/28/11 | Fri 12/30/11 | |
| 18 | | PSM presentation | 5 days | Mon 1/16/12 | Fri 1/20/12 | |
| 19 | | Submission of PSM1 report | 2 days | Fri 1/20/12 | Sun 1/22/12 | |



APPENDIX B

Gant chart PSM II

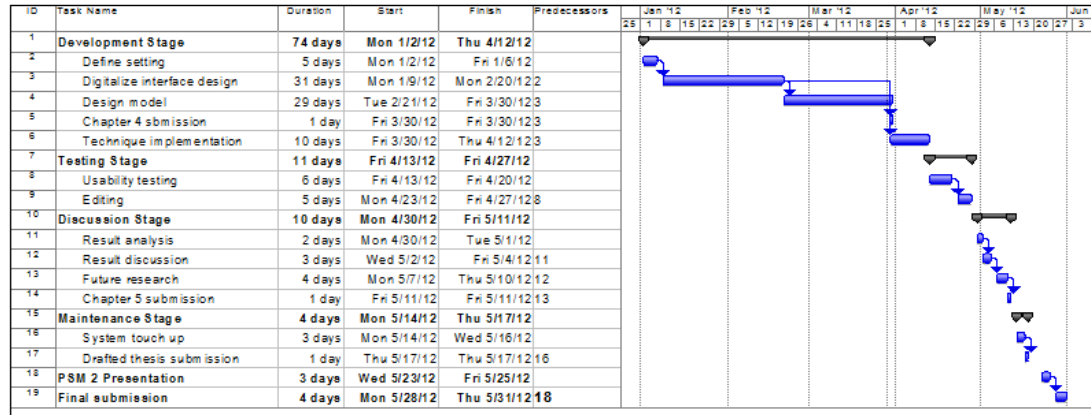


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