

DYNAMIC WEB-BASED DRIVER TASK  
ASSIGNMENT CALENDAR SYSTEM PROJECT

LEE LAY KHOON

THESIS SUBMITTED IN FULFILMENT OF THE  
DEGREE OF COMPUTER SCIENCE  
(SOFTWARE ENGINEERING)

FACULTY OF COMPUTER SYSTEM AND  
SOFTWARE ENGINEERING

2013



**UNIVERSITI MALAYSIA PAHANG**

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## STUDENT DECLARATION

I am hereby declare that the project work entitled “Dynamic web based drive assignment task calendar system project” submitted to the University Malaysia Pahang is original work done by me under guidance of Mr.Muhammad Idaham bin Umar Ong, Lecturer of faculty Computer system & engineering, University Malaysia Pahang, and this project work is submitted in the partial fulfill requirements for the award of the degree of software engineering. The result embodied in this technical report has not been submitted to any University or Institute for the award of any degree or diploma.

Date: May 12<sup>th</sup>,2013

-----  
Student Name: Lee Lay Khoon

Student Number: CB10035

## SUPERVISOR 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 degree of Bachelor of Computer Science & Software Engineering”

Signature : .....

Supervisor : Mr.Muhammad Idaham bin Umar Ong

Date : May 12<sup>th</sup>, 2013

## ACKNOWLEDGMENTS

I am very appreciate and grateful because I have a very patient and helpful supervisor, Mr.Muhamad Idaham bin Umar Ong .Deepest thanks for his invaluable guidance and advise, continuous encouragement and stimulating suggestions helped me in all the time while developing this report and system.

Especially, I would like to express my gratitude to all those who gave me the possibility to complete this technical report, my friend I want to thanks the Setiausha Kerajaan Pahang (SUK) for giving me opportunity to develop this project.

Last but not least, I am deeply indebted to my parents who's always constantly support, help and concern me

## **ABSTRACT**

Dynamic Web-Based Driver Task Assignment Calendar System (DCS) is a system specially design for Setiausaha Kerajaan Pahang (SUK) to help staff manages booking for customer and driver assignment task. Due to old traditional paper booking vehicle and paper assign driver's task method, SUK decided to have a proper system to manage all the stuffs, and bookings. This system is developed by using open source tool which is notepad, XAMPP and MySQL. Besides that DCS also implement Rapid Application Development (RAD) methodology as a guideline to keep track the entire tasks complete on time.

## ABSTRAK

Dynamic Web-Based Driver Task Assignment Calendar System (DCS) secara dijema dalam bahasa, boleh diberi maksud sebagai Web dinamik untuk membahagi tugas kepada pemandu yang berasaskan dengan calendar. (DCS) merupakan satu sistem yang direka khas untuk Setiausaha Kerajaan Pahang (SUK) untuk membantu kakitangannya menguruskan tempahan bagi pelanggan dan membahagikan tugas antara pemandu. Disebabkan kaedah membahagikan tugas antara pemandu amatlah menyusahkan, SUK memutuskan untuk mempunyai sistem yang lebih sesuai untuk mengurus semua barang-barang, dan tempahan, maka terbinalah system DCS. Sistem ini dibangunkan dengan menggunakan alat sumber terbuka iaitu notepad, XAMPP dan MySQL. Selain itu DCS juga mengamalkan metodologi Rapid (RAD) sebagai garis panduan untuk memantau tugas-tugas keseluruhan boleh melengkap pada masanya.

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## **PART I**

### **INTRODUCTION**

In part 1, an introduction to scheduling will be presented, followed by the problem statement, the objective and scope of the project.

#### **1.1 Introduction**

This is the continuous project of previous student named: Nurkhairunnisa Binti Zainudin under supervision of Mr. Muhammad Idaham Bin Umar Ong entitled with: Transport Management System (TMS) using Web-based. This part of report briefly explains about the background, problem statement, and the objectives of the dynamic web-based driver task assignment system calendar (DSC) project.

##### **1.1.1 Background**

Transportation is one of the leading indicators of the society's economic growth. Unfortunately, if it is left unorganized, the indicator shows a declining trend as time passes. Currently most of the transportation system is still using the traditional way to assign tasks to respective drivers, where this method requires the staff to write out the pairing by hand and word by word. This does not integrate well with a human's lifestyle. On the other hand, customers need to fill in all the transport reservation form with handwriting. A lot of problems will arise when staff starts to check the records for the bookings again.

Dynamic web-based driver task assignment system calendar (DSC) is a system that allows the staff to manage the booking information which includes the customer's

account, driver's task assignment and checking the reservation record with more effective method. Besides that, this system also manages the transportation system for other communities such as Institut Kemahiran Ikhtisas Pahang (IKIP), Kolej Islam Pahang Sultan Ahmad Shah (KIPSAS), Kolej Poly-Tech MARA (KPTM) and etc. which are all under Setiausaha Kerajaan Negeri Pahang (SUK) [1].

For customer's side, customer can view the types of transport that can be booked with ease and make the choice of selecting which transport vehicle. Customer does not need to fill in any forms manually to book the transport because this system provides a reservation form and latest information about the transport availability. Lastly, the customer's profile will be saved in the database for future use. The information management system implements the process [2] of Dynamic web-based driver task assignment system calendar (DSC) reservation form that the user requested. The data that must be sent includes pick-up date, drop-off date, transport types, rental duration, method of payment, and etc. This data must be sent to the supplier rental companies. Then, the information management system also controls the user's request that must be completed by customer. Customer's profile can be updated any time. When user completes updating it, the data must be submitted to the rental companies system.

### **1.1.2 Problem Statement**

Dynamic web-based driver task assignment system calendar (DSC) is designed to manage the transportation booking, driver's task assignment and also the maintenance of growing transportation vehicles and also in order to solve the problems faced by SUK Pahang which is a lack of proper technological development to monitor or regulate the number of vehicles and drivers

Firstly, traditional paper assignment tasks are not convenient because it consumes a lot time to assign tasks to the driver, For instance, some vehicles that have been double booked and there are some cases where the driver assigned to two different tasks at the same time. Moreover, all the data are not being kept in a secure location. Information might lost easily. Therefore, Dynamic Web-Based Driver Task Assignment System Calendar (DSC) provides a more organized and secure database to store all these vital data.



Secondly, customer needs to come over and book the transport with several forms to fill in. In addition, due to the old fashion paper recorder, it is extremely hard for the staff to check over the old record. For the transportation part, that vehicles lack maintenance after a lengthy period of using it, hence there is some feedback from customer regarding the current condition of vehicles they rented.

Poor management of transportation had led to the ineffectiveness, the miscommunication between staff and driver might cause their company to gain less profit. Thus a well planning and perfect organized management of a transportation organization is the key of success. Hopefully this system improves and arise satisfaction between customer and staff in order to reduce the workload of staffs.

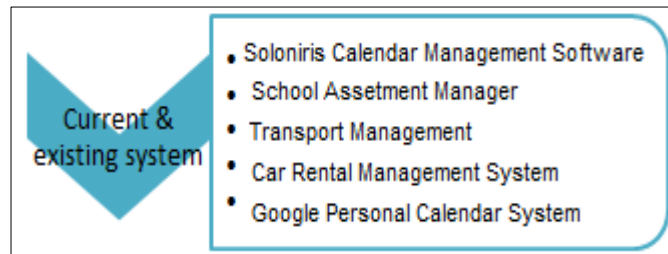
### **1.1.3 Objective**

This sub clause of the project shall define the objectives of the project are:

- To develop Dynamic web-based driver task assignment system calendar (DSC) that increases efficiency among customer, driver and staff.
- To assist Setiausaha Kerajaan Negeri (SUK) Pahang create a better transportation management via user-friendly calendar and dynamic calendar's interface.
- To reduce the need for the cost of communication like calls and the tradition paper task assignment by replacing store execution tasks and communication within a closed-loop system that can reduce the cost and streamlined communication.

## 1.2 Review of previous work/research and relationship to current project

This part consists of five reviews of the previous works that is related to Dynamic Web-Based Driver Task Assignment System Calendar (DSC).



**Figure 1 Five existing systems**

There are five systems or software included Soloniris Calendar Management Software, School Assetment Manager, Transport Management, Car Rental Management System and Google Personal Calendar System. These system and software share some similarity and different of each of the system will review one by one.

### 1.2.1: Saloniris Calendar Management Software

There are some similar parts between Saloniris Calendar Management Software with the Dynamic Web-Based Driver Task Assignment System Calendar (DSC). Both are using calendar based to assign task to stuff.



**Figure 2: Soloniris Calendar Management (Home Page)**

Saloniris calendar management software is not open source software, user need to pay €99 for 12 months to own this software. It consists of several versions like

standard package, professional package and also premium package along with phone app support. This software is specially design for salon management usage, it also support phone application to make appointment. The premium version has an extra reminder feature to remind customer for the appointment date. However, it is software and not a web application.

### 1.2.2: School Asset Manager

There are some similar parts between school asset management system with the dynamic web-based driver task assignment system calendar (DSC).Both are involved 4 modules in the system, which is staff, user, system and admin.



**Figure 3: School Assets Manager (Home Page)**

School Asset Manager Web based management system is created to help school manage their properties such as sports equipment, mobile assets including PCs and laptops to software, musical instruments and etc. This system provides convenience to schools that owns more than thousand assets. The unique part of the system is the cloud based system packed with ready-to-use school-focused functionality. In addition, each school can bespeak in the system to meet its individual needs [3].

The system helps user to save time by speeding up and simplifying asset-related process, whilst also saving money by improving asset life cycle, increasing utilization and reducing new purchases. This system offer several functions like, simplify auditing,

complete life cycle management, flexible reporting and lastly this system able to allocate & locate assets.

### 1.2.3: Transport Management System

There are some similar parts between transport management system with the dynamic web-based driver task assignment system calendar (DSC).Both system transportation manage system.

Absentee Report									
Date from 01/05/2011 to 31/05/2011					Date Generate : 31/05/2011				
Page : 1									
Transporter : CEMERLANG TRANSPORT									
Emp Code	Emp Name				Dept	Post	Hire Date	Term Date	
203322	SUHAILY BTE MD SAAD				SRCL	OPR	20/08/2002		
Date	Clock 1	Clock 2	Clock 3	Clock 4	Time In	Time Out	Reason	Shift	
3/5/2011	0	0	0	0	0	0	ABS	A	
4/5/2011	0	0	0	0	0	0	ABS	A	
7/5/2011	0	0	0	0	0	0	ABS	A	
9/5/2011	0	0	0	0	0	0	ABS	A	
18/05/2011	0	0	0	0	0	0	ABS	A	

Absentee Report									
Date from 01/05/2011 to 31/05/2011					Date Generate : 31/05/2011				
Page : 1									
Transporter : CEMERLANG TRANSPORT									
Emp Code	Emp Name				Dept	Post	Hire Date	Term Date	
Y101018	ANUAR BIN ALI				AS	SPR	25/01/2010		
Date	Clock 1	Clock 2	Clock 3	Clock 4	Time In	Time Out	Reason	Shift	
6/5/2011	0	0	0	0	0	0	ABS	A	
12/5/2011	0	0	0	0	0	0	ABS	A	
18/05/2011	0	0	0	0	0	0	ABS	A	
19/05/2011	0	0	0	0	0	0	ABS	B	
23/05/2011	0	0	0	0	0	0	ABS	B	
26/05/2011	0	0	0	0	0	0	ABS	B	

**Figure 4: Transport Management system (Home Page)**

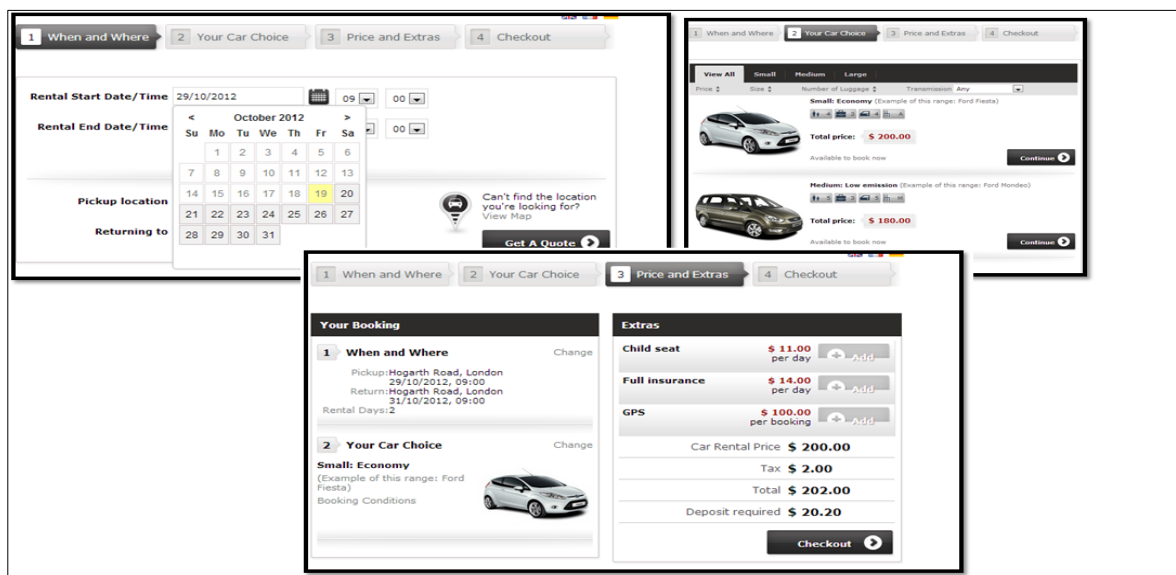
Transport Management is a system created mainly to help human resource department to arrange task between driver and vehicle, it simplifies the task of an staff, besides that, it also monitors the employee's transportation movement and automatically calculate the salary of driver and cost consumption of subsidy from company for each employee.

This system is very easy to use, since every single button has metadata to guide those fresh/ novice user. The system can be time saving simply just by updating the attendance from time to time by the staff. The main advantage of the system is that user can track which is the employee's highest movement area, and hence an accurate and precise analysis data will be created for future reference. Based on the analysis, user can be alert to those unauthorized worker that uses the transport service, supervise route of

every transport, be aware of the employee who always absent from the transport service

### 1.2.4: Car Rental Management System

The car rental management system is slightly common with the Dynamic Web-Based Driver Task Assignment System Calendar (DSC), it is because SUK (Pahang) also allow customer from communities to book their transport vehicle



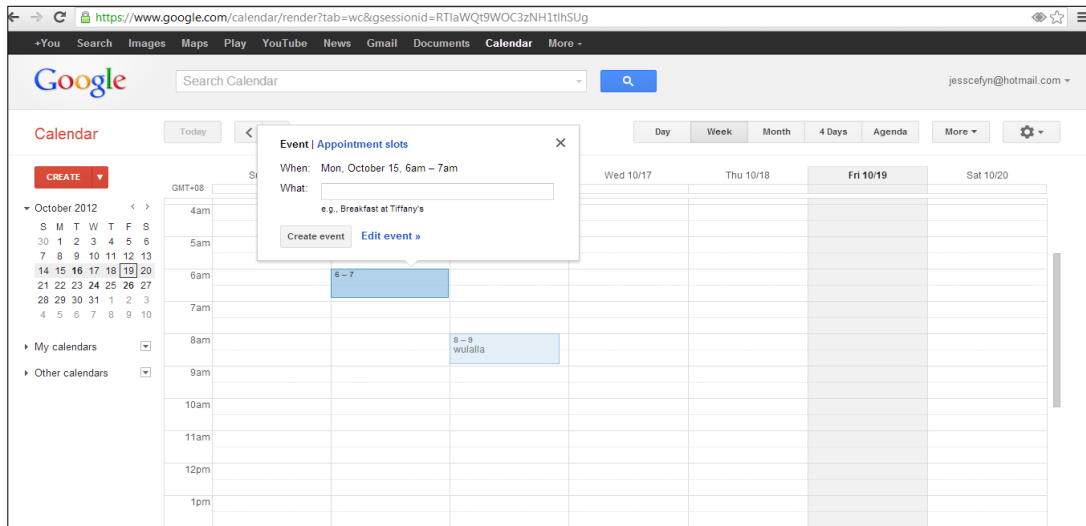
**Figure 5: Car rental management system**

Car rental management system is an online system used to manage car booking of customer. There are a few snap shots of the system which vividly indicate how customer books a car from the organization where it is similar to the DSC system that will be developed soon. This system is slightly similar to the client SUK Pahang's request which also offers vehicle booking for customer.

This web application has simple yet neat interface design. The horizontal breadcrumbs ease the car booking process and make the booking process very organized. It illustrates the booking process step by step and the booking system ends with generate booking receipt. Every step is very clear and without confusing the user.

### 1.2.5: Google Personal Calendar Management System

Google Personal Calendar Management System is similar to Dynamic Web-Based Driver Task Assignment System Calendar (DSC), both system offer online calendar based to schedule tasks.



**Figure 6: Google personal calendar management system**

Google Personal Calendar Management System is an impressive online calendar which is a free web application offered by Google. It is a static calendar system which allows user to manage their daily task, easily keep track of the daily event without missing out them. The interface is simple and the system is easy to use. This free calendar system provided a few viewing mode, user either can view in terms of daily, weekly or monthly which is very user-friendly. Besides that, each of the view can be printed. Google calendar allows user to be able to jot down their daily task by using natural language, and using multiple choices of colors to highlight user's task.

### 1.2.6 Comparison between the five existing systems

In the table below, a summarize table has been made based on the review above.

**Table 1: Comparison between existing systems**

<b>SYSTEM</b>	<b>ADAVANTAGES</b>	<b>LIMITATION</b>
Saloniris Calendar Management Software (SCM)	<ul style="list-style-type: none"> <li>• Well organized for daily appointments</li> <li>• Send an alert to customer via phone</li> <li>• Not an open source</li> </ul>	<ul style="list-style-type: none"> <li>• Weak interface.</li> <li>• Expensive</li> <li>• Only suitable for small business</li> </ul>
School Asset Manager (SAM)	<ul style="list-style-type: none"> <li>• Provided a systematic management form school asset in more organize way.</li> <li>• A huge database to store every asset's information in orderly, easier user for future review.</li> <li>• Provided a lot of function for user to explore, such as flexible reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Only focuses on the asset management of the school.</li> <li>• Not easy to use in a short period, due to ambiguous user's guideline.</li> <li>• Expensive</li> </ul>

Transport Management	<ul style="list-style-type: none"> <li>• Standardized the entire work tasks for every vehicles and drivers.</li> <li>• Provides greater visibility between management level and worker level.</li> <li>• Auto calculate salary of staffs</li> </ul>	<ul style="list-style-type: none"> <li>• Only suitable for human resource (HR) department.</li> </ul>
Car Rental Management System	<ul style="list-style-type: none"> <li>• Manage the car booking from customer</li> <li>• Consists of tremendous functions such as: car booking, information of car, promotion.</li> </ul>	<ul style="list-style-type: none"> <li>• Only support car rental management part.</li> </ul>
Google Personal Calendar Management System	<ul style="list-style-type: none"> <li>• Manage user's daily task</li> <li>• Simple and easy to use</li> </ul>	<ul style="list-style-type: none"> <li>• No error handling function(clash)</li> <li>• Static calendar</li> </ul>

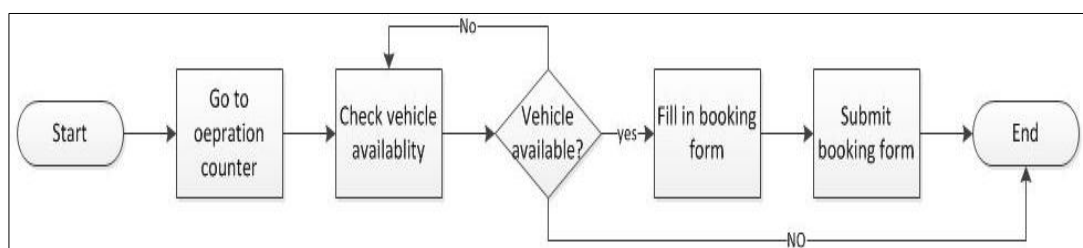
According to the pros and cons of the existing system, there are some good features that will be taken to develop dynamic web base driver task assignment system calendar (DSC). For example, the Google's user-friendly calendar system, car rental's easy booking process and idea from the transport management system also will be included in the develop of dynamic web-based driver task assignment system calendar.



### 1.3 Explain the current system and its limitation

#### 1.3.1 Customer Booking Vehicle

Figure 1.3.1 shows the flow of manual booking vehicle implementing in Setiausha Kerajaan Pahang (SUK).

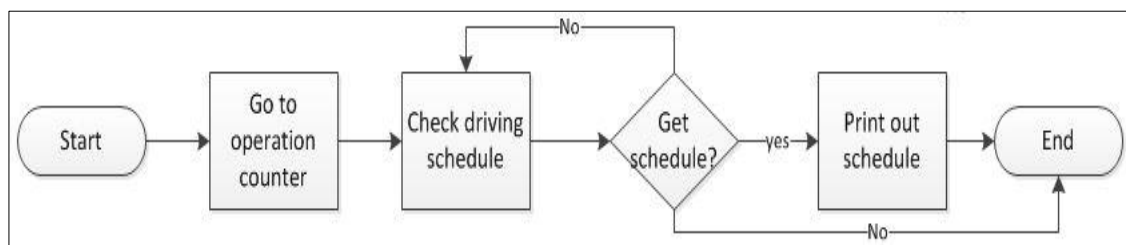


**Figure 7: Customer booking vehicle**

Customer need to go to the operation counter and check availability of vehicle, if the vehicle is booked, customer can check another vehicle's availability or end the booking process. After identify the vehicle status, customer need to fill the booking form and submit the booking form. Staff will contact customer about the booking whether successful or fail.

#### 1.3.2 Driver Check Schedule

Figure 1.3.2 shows the flow of driver check schedule implementing in Setiausha Kerajaan Pahang (SUK).

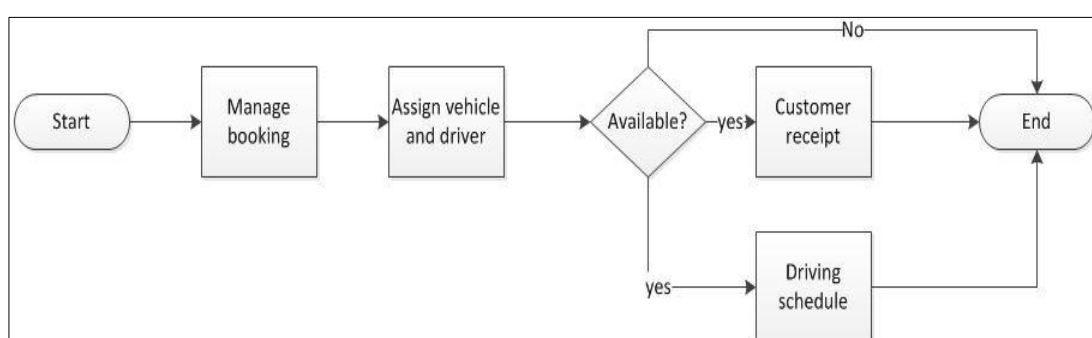


**Figure 8: Driver check schedule**

When drivers want to know their schedule, they need to go to the operation counter and check for schedule, if there is no schedule, driver may end the process or recheck again. Driver may print out their schedule.

### 1.3.3 Staff Manages Booking and Assign Driver.

Figure 1.3.3 shows the flow of staff manages booking and assign driver implementing in Setiausaha Kerajaan Pahang (SUK).



**Figure 9: Staff manages booking and assign driver**

When staff wants to manage booking, they need to check back the booking form filled by customer, followed by assign driver and vehicle, if there is insufficient of vehicle or driver, they need to contact customer to change their booking detail, if customer cannot make it, the booking form will be disapproved. Only the successful booking will generate receipt for customer and schedule for driver.

### 1.3.4 Limitation of Current System

This sub-topic will discuss about what are the limitations that cannot be done by the system.

- Inconvenient  
whenever driver and customers need to perform their action, they need to go to the operation counter; it is very waste time back and forth within operation counter.

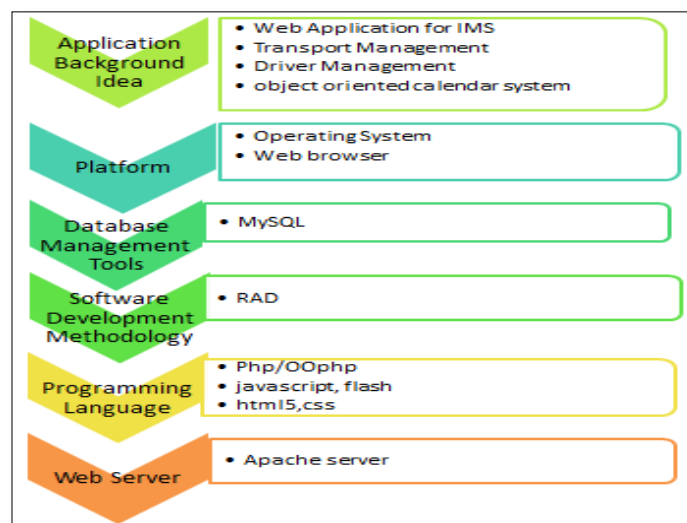
- Insecure  
All the booking forms is written down on a paper, where staff assign driver's task also jotted down on paper, it is very dangerous if all the papers not documented properly.
- Cost increased  
Communication cost is increased in term of call, fax between all users

#### 1.4 Explanation of terminology

Terminology is the term of study that will be used in this project. Term that used in this technical report consist specific meaning, where this sub topic will justify all the specific terms used in this report with explanation. Refer to Appendix A

#### 1.5 Methods of approach

The methods of approach illustrated by the Figure 10 below, which shows the project structure overview. It clearly indicates the application background idea mainly about. Besides that it shows the type of platform, database, software development methodology, programming language and also web server will be implement during the project development.



**Figure 10: DCS structure overview**

### **1.5.1 Application Background Idea**

This sub topic will exposed more ideas to user about the current technique on the web application, inventory management system and calendar management system.

#### **1.5.1.1 Web Application**

A web application in technical term can be linked with World Wide Web (www). This triple “W” is an application that can be accessed over a network no matter is internet or an intranet. It is supported by various web browsers over the internet, for instance, Google Chrome and Internet Explorer. The term used in web application is coded in a browser-supported programming language like, HTML, CSS and JavaScript .Web application provide a brilliant function which allow user interact with server by retrieve data on web page or web application’s database. The prominent advantage of web application is to allow user edit or maintain the web application without interrupting and installing software on use’s computer is the strongest supporting point for its popularity.

#### **1.5.1.2 Inventory Management System (IMS)**

Inventory Management System refers to the professional management of maintain and it keep track all the goods from the moment it reached till the moment it is sold. The management are monitoring by using a software or web application. Inventory management system is mainly about specification of the goods and placement of stocked goods. Inventory management system can produce more accurate and precise result in stock, order and in transit. There is no more assumption from running the business after implementing the Inventory Management System (IMS).

#### **1.5.1.3 Calendar Management System**

Calendar Management System Software is a system providing a convenient of daily task management in a flow of a collaborative environment. These procedures can be manually inserted or dynamic insertion of task’s detail. It reschedules the daily task

of user where this system usually builds up with various programming languages that supported by web browser for example, JavaScript, and combined with a browser-rendered markup language like HTML. To produce dynamic interface, Calendar management system will used HTML5 or java in system.

## 1.5.2 Platform

Platform in computer term can be explained as a framework that provided a space for application run on it. In this sub topic may cover the two platforms involved in the project development which is operation system (OS) and web browser.

### 1.5.2.1 Operating Systems

Operating system is a program that runs after it is initially loaded into the computer by a boot program [7]. It manages all programs in a computer. The most popular operating systems in computer field are Linux, Windows and Macintosh [8]. They are undoubtedly the major operating systems used by computer users around the world. Windows has the highest user base, followed by Linux and Mac.

**Table 2: Comparison between Linux, Window and Mac**

<b>TYPE</b>	<b>WINDOW 7</b>	<b>LINUX</b>	<b>MACINTOSH</b>
Performance	<ul style="list-style-type: none"> <li>• Stable, no crash with software</li> <li>• Vulnerable to virus</li> <li>• Window update</li> <li>• Programmed in C,C++ and assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Built on UNIX tradition.</li> <li>• Less memory usage.</li> <li>• Smaller install size.</li> <li>• Broader hardware compatibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Not much viruses</li> <li>• Apple hardware</li> <li>• Support update</li> </ul>

	language		
Cost	<ul style="list-style-type: none"> <li>Expansive than Linux.</li> </ul>	<ul style="list-style-type: none"> <li>Cheap or free.</li> </ul>	<ul style="list-style-type: none"> <li>Most expensive.</li> </ul>

Based on three types of operating systems, Windows will be the choice for this program's development, because window is stable compared to the other OS. Besides that, window makes program run faster.

### 1.5.2.2 Web Browser

Secondly, another platform used in this project is web browser. Web browser is a software application is a software application for retrieving, presenting and traversing information resources on the World Wide Web .[9]There are the some famous web browsers, such as Google Chrome, Internet Explorer and Mozilla Firefox.

**Table 3: Comparison between Google, Chrome, Mozilla Firefox and Internet Explorer**

<b>CHARATERISTIC</b>	<b>GOOGLE CHROME</b>	<b>MOZILLA FIREFOX</b>	<b>INTERNET EXPLORER</b>
JavaScript Speed	542.3ms	1230.6ms	6305.5ms
CPU Usage (Under Stress)	3.0%	7.6%	13.1%
DOM Selection Speed	39ms	73ms	137ms
CSS Rendering Speed	91ms	359ms	793ms
Page Load Time	1.45s	1.34s	1.61s
Browser Cache Performance	0.72s	0.75s	0.87s
Overall Performance	1 <sup>st</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>

In conclusion, according the comparison result of the above, Google chrome will be the main web browser in my project and secondly will be followed by Mozilla Firefox. It is due to a large numbers of JavaScript will be used in the development of system; hence a fast speed loaded of JavaScript browser is needed. Overall, Google chrome is the most suitable for my project development.

### 1.5.3 Database Management Tools

Database tool is a computer programs that organized a bundle of data. The data originally form system application; it acts as a warehouse to store all the data with different table. Each table has different relationship or keys. Database management tool basically is large and complex software system; it meets many requirements to properly maintain its database function well together with web application or software. There are many different database management tools, only two popular databases will be discussed in this sub topic, which is MySQL and Oracle.

MySQL stands for Structured Query Language. It is a relational database management system that runs as a server providing multi-user access to a number of databases. Applications which use MySQL databases such as Joomla, Word Press, Drupal and other software built on the software stack. [4]

Oracle is an object-relational database management system. It produced by Oracle Corporation [11]. It is the most widely used large-scale database in business society at present and its performance influences the efficiency of application directly.

**Table 4: Comparison between MySQL and Oracle [4], [11]**

<b>Features/ Functionality</b>	<b>MySQL</b>	<b>Oracle</b>
Cost	Free	\$36000 per processor, \$1100 for updates

Features	<ul style="list-style-type: none"> <li>• Oracle Management Server</li> <li>• Oracle Change Manager</li> <li>• Administrative Alerts</li> <li>• Capacity Planning</li> <li>• Query Optimizer</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to get started</li> <li>• Various GUI:PHP My Staff</li> <li>• Little overhead</li> <li>• Support Migration</li> </ul>
Strength	<ul style="list-style-type: none"> <li>• For non-mission-critical environment</li> <li>• Great for database enabled website</li> <li>• Attractive price point</li> </ul>	<ul style="list-style-type: none"> <li>• Rock solid dependability ,reliability and features</li> <li>• Steep learning curve and expensive</li> <li>• Designed with the enterprise in mind</li> </ul>
Application Perspective	Able to run in large organization like: Facebook.	Targeted toward large organization
Popularity	Famous among web application usage.	Mostly organization targeted it.
Integration programming language	<ul style="list-style-type: none"> <li>• PHP</li> <li>• Java</li> <li>• Ruby on Rails</li> <li>• .NET</li> <li>• Perl</li> </ul>	<ul style="list-style-type: none"> <li>• Java</li> <li>• .NET</li> <li>• APEX</li> <li>• Ruby on Rails</li> <li>• PHP</li> </ul>
Storage	-	Table space, role management, snapshots, synonym and package.
Usage	Website	Insurance, banking



Stored Procedures	Very basic features, runs interpreted in session threads. Limited scalability.	Advanced features, runs interpreted or compiled. Lots of built in packages add significant functionality. Extremely scalable.
-------------------	--	---

Database management system that will be chosen in develop dynamic web-based driver assignment system calendar is MySQL. Because it is more suitable compared to oracle, oracle is more to organization usage .In this project only needed an open source database tool like MySQL.In addition, it is open source and widely use in web application development, MySQL is more fulfill requirement of client compared to oracle.

#### 1.5.4 Programming Languages

Programming Languages is the only language to communicate with computer, where by computer cannot think its own. Those languages like a bridge to help user to monitor the computer and executes instruction wanted by user. Therefore, those programming language is important for developer to create system that satisfied all levels of users. Programming Languages can produce an interactive and dynamic web page. The most popular programming languages to develop web page are PHP, JSP and ASP.NET.

PHP stands for Hypertext Preprocessor. It is a powerful tool to produce dynamic and web pages. It is the widely used, because it is free and able to integrate with other web programming language like HTML5 and JavaScript to product an interactive web page. PHP is famous with its language for server-side applications, it contribute lot in create dynamic web pages, where PHP only focus the part of server-side scripting. Since it is open source, there are lots programmers provide useful code for fresh users to customize and extend for their own use.

JSP technology can be say provides a shortcut to create dynamic web pages. It helps software developers create dynamically generated web pages especially after integrate with HTML, XML or other document types. JSP in full term is named as Java Server Pages. It was designed to address the perception that the Java programming environment did not provide developers with enough support for the Web. JSP provides a simplified and fast way to create dynamic web content.

ASP.NET is a another method to create dynamic web pages, compared to the example above, ASP.net is not a standalone language like PHP or JSP, while ASP.net is a web application framework developed by Microsoft. It is not an open source framework, however, comes together will windows package. It is built on the Common Language Runtime (CLR) that allows programmer to write ASP.NET code using any supported .NET language. [15]

**Table 5: Comparison between PHP, JSP and ASP [16]**

<b>FUCNTIONALITY</b>	<b>PHP</b>	<b>JSP</b>	<b>ASP.NET</b>
Security	Recognized safety performance	High	Rely on windows security
Platform Compatibility	Many	Many	Stand alone
Operating Efficiency	Higher	Highest	High
Cost	Open source	High	High

Based on the comparison result above, PHP shows that it has high compatibility, where is able to function well on various platforms, thus PHP will be chosen language

in the future system development and implementation. There is another support point which is PHP is open source which fulfills the client's requirement when developing the system.

### 1.5.5 Web Servers

A web server is a software or can be hardware using in the client/server model and the World Wide Web's hypertext transfer protocol (HTTP). There are many web server software applications such as NCSA and Apache HTTP server, commercial packages (IIS) from Microsoft, Netscape and others. However, only apache and internet information services (IIS) will be covered in this sub topic. Apache and IIS are the two leading web server nowadays.

Apache HTTP server commonly referred as Apache is web server software that provides open source software to run web server. The application is available for wider variety of operating system for example; Microsoft windows, UNIX and Linux Apache support variety of features, many implemented as compiled modules which extend the core functionality [17].

Internet Information Services (IIS) can be known as internet information server formerly is a web server application and set of feature extension modules created by Microsoft .It is only able to run on Microsoft Window Operating System like Window 7, Window XP or Window 8. Besides that it is not an open source tool. [18]

**Table 6: Comparison between Apache and IIS [17], [18]**

<b>TYPE</b>	<b>APACHE</b>	<b>IIS</b>
Features	<ul style="list-style-type: none"> <li>various features, including implementation of the latest protocol</li> </ul>	<ul style="list-style-type: none"> <li>support more than 3 authentications included anonymous and basic access authentication</li> </ul>

Developed by	<ul style="list-style-type: none"> <li>• Apache Software Foundation</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Corp</li> </ul>
Administration console	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
Extensible	<ul style="list-style-type: none"> <li>• Is an open source, developed by public</li> </ul>	<ul style="list-style-type: none"> <li>• Packaged with Windows</li> </ul>
Efficient	<ul style="list-style-type: none"> <li>• Lot of efforts has been put into optimizing the Apache's C code for performance.</li> <li>• Support for Apache comes from community itself</li> </ul>	<ul style="list-style-type: none"> <li>• Have ASPX, only can run in IIS.</li> <li>• Has dedicated staff to answer doubt or problems</li> </ul>
Portability	<ul style="list-style-type: none"> <li>• Runs on a wide variety OS(windows, Mac, Linux )</li> </ul>	<ul style="list-style-type: none"> <li>• Only for Windows</li> </ul>
Stability/Reliability	<ul style="list-style-type: none"> <li>• Easy to get the source code since it is open source.</li> <li>• Risk is unpredictable.</li> <li>• Bug fixed by developer, official announce will be made after the maintenance process</li> </ul>	<ul style="list-style-type: none"> <li>• The window OS is prone to security risks.</li> </ul>
SSI Support	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
Initial release	<ul style="list-style-type: none"> <li>• 1995</li> </ul>	<ul style="list-style-type: none"> <li>• With windows NT 3.5.1</li> </ul>

In conclusion, both server has its own strengthen and weakness, but, based on the client's requirement, Apache http server will be more suitable compared to Internet information services(IIS), since IIS is not open source, where client prefer open sources tools.

## **1.6 Indication of scope and limitation of study**

This sub topic explains about the scopes and limitations of study in current developing project.

### **1.6.1 Scope of study**

Dynamic web-based driver task assignment system calendar (DSC) is developed to centralize and organize the transportation system for other communities such as IKIP, KIPSAS, KPTM and etc. which are under Setiausaha Kerajaan Negeri Pahang (SUK). This system is a web-based system [19]. There are 3 parties involved in the system which is staff, customer and system.

i) Staff

Staff can manage customer's profile with the function of insert, update and delete. Staff can adjust the rate of transport follow he standard price in the market. Besides that, staff can update the condition status of a transport before renting it to customer. Staff can use readily function of calendar system to assign task to driver.

ii) Customer

Customer can edit their profile after registration process In addition, they can make a reservation of a transport after the login session, they may update their booking detail and also view of the transportation condition's status.

### iii) System

There are two modules, which is staff modules and customer modules. This system is web application where customer can access the page 24 hours, as long as there is internet connection. This system has it's strengthen part because customer can retrieve the information easily while staff can manage the system easily.

#### **1.6.2 Limitation of study**

This system cannot ensure the condition of vehicle provided by technician is 100% accurate, because this is only a web application which cannot carry out the task of inspecting the condition of vehicle. All the information is provided by technician.

#### **1.7 Outline of materials presented in the rest of the report**

This technical report consists of three (3) parts.

Part 1 will discuss on introduction to system, which included problem statement, scopes and objectives. Problem statement describes on the problem that faced by the current system. Besides that part 1.2 will review the existing system, method of approach which may described more about evolution of system from previous until current, this part will focus on current system and the technique or the software that will be used on the current system.

Part 2 of report will elaborates on report body which consists of user requirement, design description, development plan and testing plan. All the charts or diagram also need to put in this section. Besides that it is also defining on the method used to develop the system and project planning. This chapter also identified the needs of the project such as the method or materials used to develop the system.

Part 3 concludes the project finding of overall project. This part consists of project summary, the summary of gathered data and the suggestion of the enhancement related to this project.

All 3 parts contain in this technical report is responsible to show all the flow, the future work, the development process, the tools that use and others in meeting to completion of the project.

## PART II

### REPORT BODY

Part two is the report of body which included the user requirement, system design description, system development plan and testing plan.

#### 2.1 User requirement

For PSM, Detail user requirement from user with official sign off (as agreement). This is important to ensure that students have taken the detail requirement from user and user agrees that it is the correct requirement as needed. The requirement sign off form attached at Appendix E.

##### 2.1.1 Use case

The use case diagram below illustrates the actor and role that involved in the system.

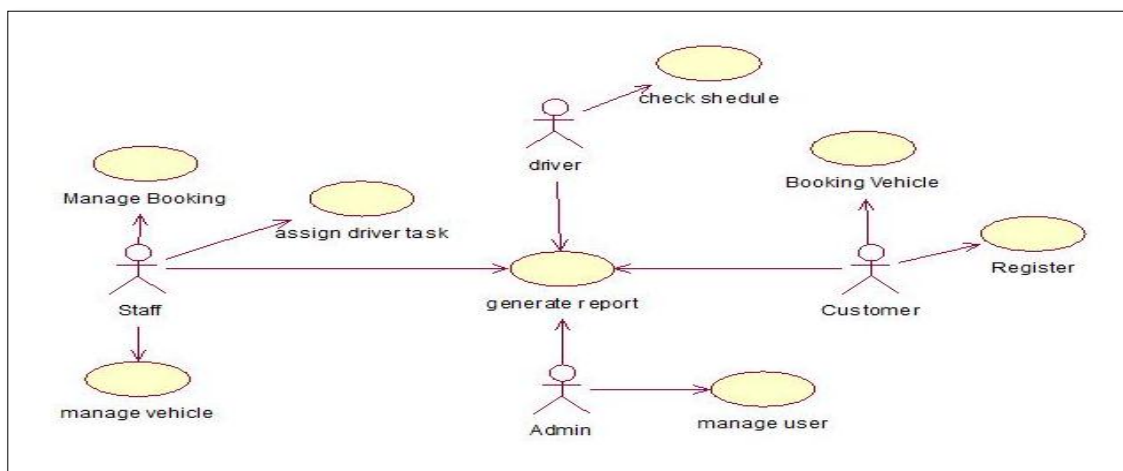


Figure 11: use case diagram



The use case indicates the three main actors which is staff, driver, admin and customer.

1) Manage Booking:

The function only allow staff to access to manage booking done by customer.

2) Assign driver task:

This function allows the staff arrange the driving schedule for each driver.

3) Manage vehicle:

This function allow staff update, insert vehicle that used in SUK event.

4) Check schedule:

This function allow driver to check their daily respective task

5) Booking vehicle:

This function allow user to booking vehicle through online

6) Register:

This function allow user to register them.

7) Manage user:

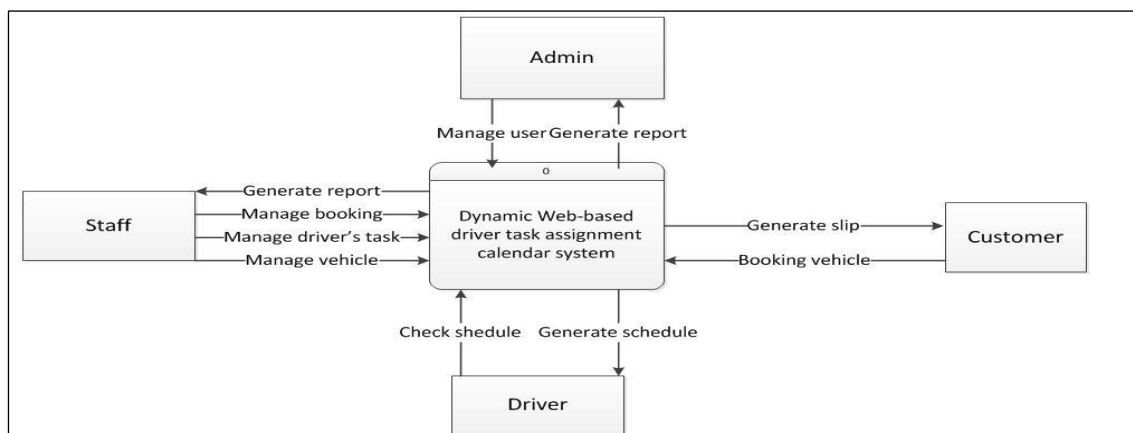
Admin able to manage all user like driver, staff and customer in the system

8) Generate record:

Driver allowed to generation their schedule record, where admin staff can generate record like booking record or payment record, customer also can generate their booking slip as record.

### 2.1.2 Context diagram

The context diagram show the activities carried by actors that interact with the system.



**Figure 12: Context diagram**

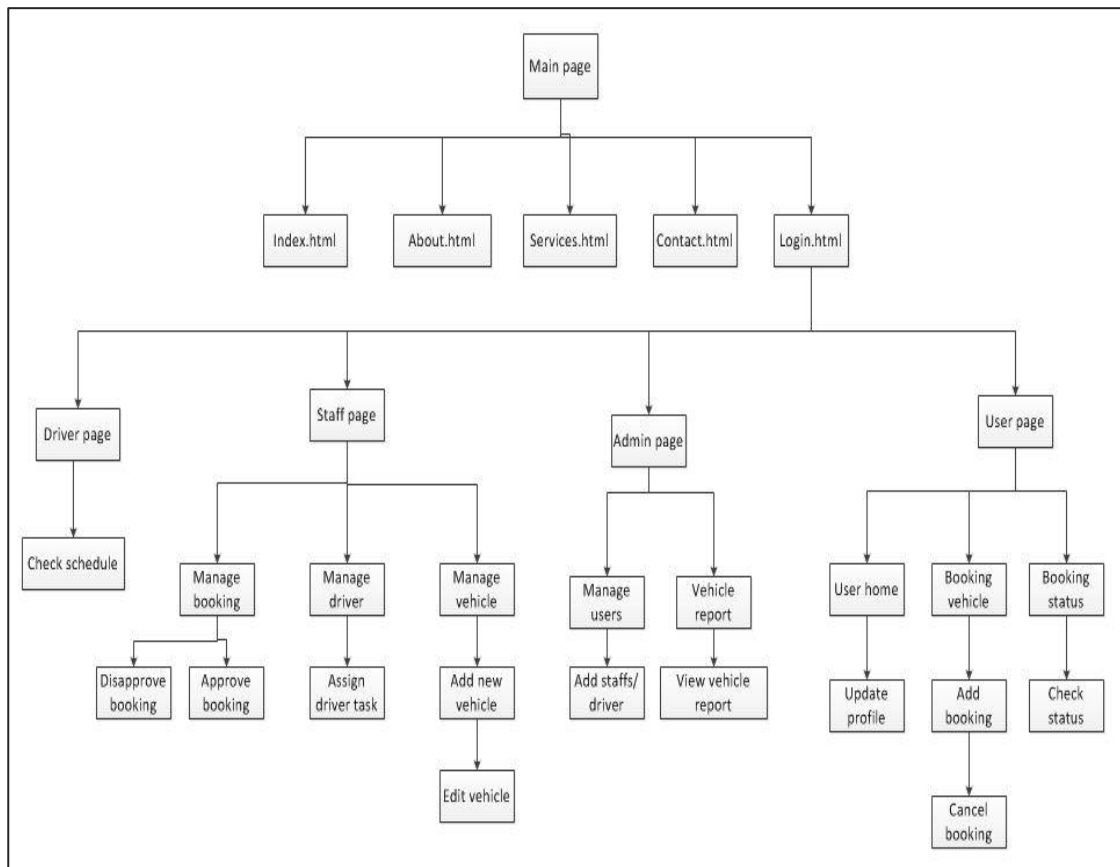
There are four actors using the system. This is admin, staff, customer and driver. The activities show in the diagram.

### 2.2 Software design description

This section will discuss design description of the system.

### 2.2.1 Screen Dialogue

The screen dialogue below describe the overall function can be done by the system. The system is using by four user type, which is user, admin, staff and driver. Those modules have different function.



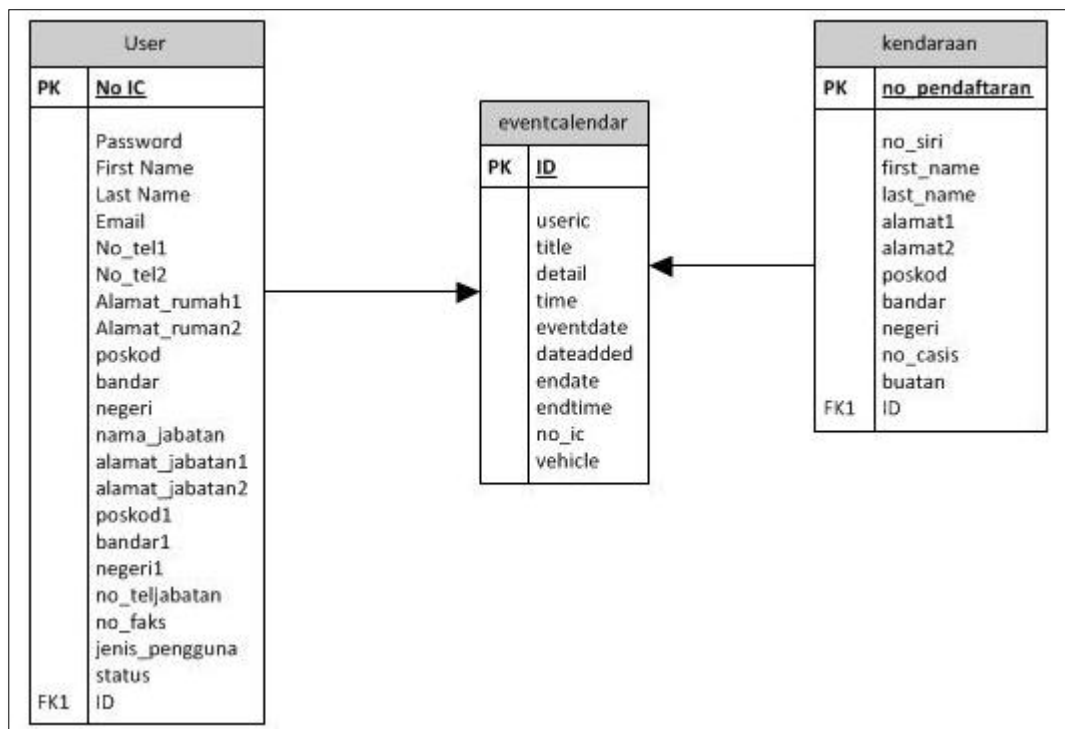
**Figure 13: Screen dialogue**

User can login into account to make a vehicle booking, besides that they can cancel booking and check their vehicle booking status; they can also generate receipt for the successful booking. Other than that, they can also update their profile. Staff can login into system manage booking that made by user, they need to assign driver task once booking had been approved, in addition they manage vehicle owed by SUK Pahang.

Driver can login into system and check driving schedule, where admin can add staff and edit status of staff, moreover admin can view the latest vehicle report.

### 2.2.2 Database Design

The database design below also named as entity relationship diagram (ERD), it is specially design for DCS system to store the data transcation between user and system. The following figure show the entity relationship diagram for dynamic web-based driver assignment task calendar system.



**Figure 14: ERD diagram**

The data design included the three tables of the system which is user, eventcalendar and kenderaana.

### 2.2. 3 Data Dictionary

The follow table is the data dictionary of user table. User table is to store all the users detail like driver, staff, admin and customer data. The primary key is no\_ic

**Table 7:Data dictionary of user table**

Data Field	Data Type	Length	Description	Constraint
no_ic	Int	12	Identity number of user	PK
password	Varchar	8	Password	
first_name	Varchar	20	First name of user	
last_name	Varchar	20	Last name of user	
email	Varchar	50	Email name of user	
no_telhp1	Varchar	10	No tel of user	
no_telhp2	Int	10	No tel of user	
alamat_rumah1	Varchar	50	Address of user	
alamat_rumah2	Varchar	50	Address of user	
poskod	Int	8	Poskod of user	
bandar	Varchar	20	Bandar of user	
negeri	Varchar	20	Negeri of user	
nama_jabatan	Varchar	50	Nama Jabatan of user	
alamat_jabatan1	Varchar	50	Address Jabatan of user	
alamat_jabatan2	Varchar	50	Address Jabatan of user	
poskod1	Int	8	Poskod Jabatan of user	
bandar1	Varchar	20	Bandar Jabatan of user	
negeri1	Varchar	20	Negeri Jabatan of user	
no_teljabatan	Int	10	No tel Jabatan of user	
no_faks	Int	10	No faks Jabatan of user	
jenis_pengguna	Varchar	20	Jenis pengguna of user	
status	Varchar	20	Status of user	

The table below is the data dictionary of daftarkenderaan table. This table is used to store all the vehicles detail.

**Table 8: Data Dictionary of daftarkenderaan table**

Data Field	Data Type	Length	Description	Constraint
no_pendaftar	Varchar	10	Identification number of daftarkenderaan	PK
no_siri	Varchar	10	Identity number of daftarkenderaan	
first_name	Varchar	20	First name of daftarkenderaan	
last_name	Varchar	20	Last name of daftarkenderaan	
alamat1	Varchar	50	Address of daftarkenderaan	
alamat2	Varchar	50	Address of daftarkenderaan	
poskod	Int	8	Poskod of daftarkenderaan	
bandar	Varchar	20	Bandar of daftarkenderaan	
negeri	Varchar	20	Negeri of daftarkenderaan	
no_enjin	Varchar	10	Number enjin of daftarkenderaan	
no_casis	Varchar	10	Number casis of daftarkenderaan	
buatan	Varchar	50	Buatan of daftarkenderaan	
nama_model	Varchar	50	Nama model of daftarkenderaan	
keupayaan_enjin	Varchar	25	Keupayaan enjin of daftarkenderaan	
bahan_bakar	Varchar	25	Bahan bakar of daftarkenderaan	
warna	Varchar	25	Warna of daftarkenderaan	
kelas_kegunaan	Varchar	25	Kelas kegunaan of daftarkenderaan	
jenis_badan	Varchar	25	Jenis badan of daftarkenderaan	
tahun_dibuat	Int	25	Tahun dibuat of daftarkenderaan	
tarikh_pendaftaran	Varchar	25	Tarikh pendaftaran of daftarkenderaan	

status_pemunya	Varchar	25	Status pemunya of daftarkenderaan	
bil_penumpang	Int	50	Bilangan penumpang of daftarkenderaan	
tarikh_tamat_cukaijalan	Varchar	25	Tarikh tamat cukai jalan of daftarkenderaan	
harga_kenderaan	Varchar	25	Harga kenderaan of daftarkenderaan	
no_invois	Varchar	25	Number invois of daftarkenderaan	
no_pesanan_kerajaan	Varchar	25	Number pesanan kerajaan of daftarkenderaan	
penempatan_kenderaan	Varchar	50	Penempatan kenderaan of daftarkenderaan	
gambar	Varchar	50	Gambar of daftarkenderaan	
pegawai_bjwab1	Varchar	25	Pegawai bertanggungjawab of daftarkenderaan	
pegawai_bjwab2	Varchar	25	Pegawai bertanggungjawab of daftarkenderaan	
pegawai_bjwab3	Varchar	25	Pegawai bertanggungjawab of daftarkenderaan	
nama_syarikat	Varchar	50	Nama syarikat of daftarkenderaan	
alamat_syarikat1	Varchar	50	Address syarikat of daftarkenderaan	
alamat_syarikat2	Varchar	50	Address syarikat of daftarkenderaan	
poskod1	Int	8	Poskod of daftarkenderaan	
bandar1	Varchar	20	Bandar of daftarkenderaan	
negeri1	Varchar	20	Negeri of daftarkenderaan	
no_telhp1	Varchar	10	No tel of daftarkenderaan	
no_telhp2	Int	10	No tel of daftarkenderaan	
no_faks	Int	10	No faks of daftarkenderaan	

email	Varchar	50	Email of daftarkenderaan	
status	Varchar	20	Status of daftarkenderaan	

The table below shows the data dictionary of EventCalendar. This table is used to store all the booking event of customer.

**Table 9: Data Dictionary for eventcalendar table**

Data Field	Data Type	Length	Description	Constraint
ID	Int	11	Identity number of booking	PK
useric	varchar	12	Identity number of user who make booking	FK
Title	Varchar	65	Title of booking	
Detail	varchar	255	Detail of booking	
Time	time	-	Time of booking	
eventDate	Varchar	10	Booking date	
dateAdded	date	-	Booking apply time	
enddate	Varchar	10	End Date of booking event	
endtime	time	-	End time of booking event	
No_ic	Varchar	100	Identity number of driver	FK
vehicle	Varcher	100	Number plate of vehicle	FK



### 2.2.4 Interface Chart

Table below shows the summary of interface pages consists in the system. Interface chart is a table to summarize all the interface pages consists in the system and categories the level of authorities of different user can access which pages

**Table 10: Interface chart**

No	Features	User	Staff	Driver	Admin
1	<b>User module</b>				
	Create user				√
	Update user				√
	Register user	√			
2	<b>Vehicle module</b>				
	Create vehicle		√		
	Update vehicle		√		
	View vehicle		√		√
	Generate vehicle report		√		√
3	<b>Booking module</b>				
	Make booking	√			
	Delete booking	√			
	Approve /disapprove booking		√		
	Generate booking report		√		√
4	<b>Driver assignment task module</b>				
	View task			√	
	Assign task		√		
	Update task		√		
	Generate task report		√		√

### **2.2.5 Detail module description**

In the user module, only admin able to update user and create user, where user can register themselves a new account. Next vehicle module is a module that record functions consist in the vehicle module, staff have the highest authority to create vehicle, update ,view and generate vehicle report, where admin only able to view vehicle and generate vehicle report.

The third module is booking module, user can make booking and delete booking, where staff can change the status of booking either approve or disapprove the booking, moreover, staff and admin can generate booking report for future refer.

The last module is driver assignment task module, driver can view the task assigned by staff, where staff can assign task, update and generate report. In addition admin can generate task report too.

## **2.3 Software development plan.**

This subtopic will covered the development method and implementation of source code with database.

### **2.3.1 Software Development Methodology**

Good software is not created in a day, software exposed to higher risk if the software project runs for a longer duration of time, hence, to produce high quality software, software development methodology plays a vital role in the development process .Software development methodology is a framework used to structure wise step in developing an information system. There is lots of methodology, where by to develop dynamic web-based driver task assignment system calendar (DSC), three popular methods have been chosen to make a review and comparison, which is waterfall, prototyping and rapid application development (RAD).

First of all, Waterfall model is a sequential design process. It is often used in software development processes [12], because it is simple to understand and easy to use, however it is not suitable for complex project. Waterfall model's progress is seen as

flowing steadily downwards (like a waterfall) through the phases of requirement specification, software design, implementation, testing and maintenance.

Otherwise, prototyping model is a systems development method in which a prototype (an early approximation of a final system or product) is built, tested and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed [13].

Lastly, Rapid Application Development (RAD) is a software development process that allows usable systems to build in a short period as possible, often with some compromises. The planning of software developed using RAD is interleaved with writing the software itself. The lack of extensive pre-planning generally allows software to be written much faster. There are four major components focused in this method. [14]

**Table 11: Comparison between waterfall, prototyping and RAD**

METHOD	WATERFALL MODEL	PROTOTYPING	RAD
Review	Easy to understand, even a short view of the diagram.  More suitable to those simple project.	Creates several rough working applications and involve constant user interaction until the developer comes up with the final application which satisfies the user.	To converge early toward design acceptable to the customer and feasible for developer.
Flow of method	Linear.	Non-linear.	Non-linear.
Compatibility	Suitable for a more conventional software project where user requirement are clear.	Suitable for online application where user interfaces is the most important component and clients are not clear about what they exactly need in	Suitable for online application where user interfaces is the most important component and clients.

		the final product.	
Strength/Weakness	Difficult to implement any changes suggested by user after initial specification.	Ensure user involvements which make last minute changes possible.	Save developing time, in order to reduce the cost.

Based on the software development methodology being compared in the table above, RAD will be used in system development and implementation. The reasons are summarize below:

- Save development time

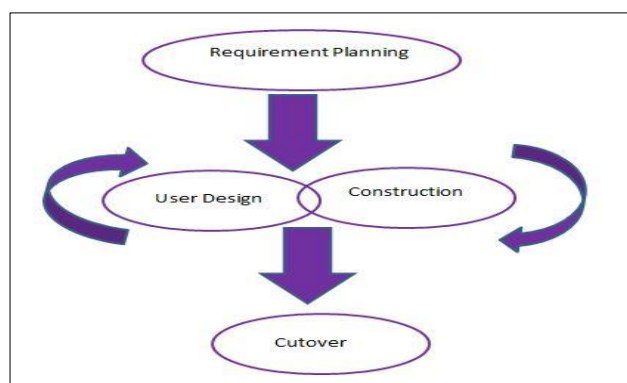
The biggest advantage of Rapid Prototyping Models is that time-to-market is greatly reduced. It saves a lot of development time where RAD is flexible and adaptable to changes.

- Scope and size of DCS system

RAD can handle a large project. From the comparison table about, it indicate that online web application like DCS system is likely suitable.

- User participate is vital

In the implementation of RAD method, it increase the involvement of client, since client is need to work together with developer, in order to achieve requirement of client. Client provided a lot of useable information during system development.



**Figure15: Diagram of RAD**

- **Requirements Planning Phase** – The element of system planning and system analysis will combine together. Developer will meet and interview client about their needs in the system, such as scope and constraints. Developer starts to research on existing systems and analyse the requirements and determine the software, hardware going to use in the future development process. The outcome is slightly similar to software requirement specification (SRS). In part of 2.1, it covered user's requirements.
- **User Design Phase** – In this user design phase, developer normally flushes out the client's requirements in more detail, hence developer turns the entire requirements into data model and creates screen flows or layouts for the essential parts of system. That is the reason why report part 2.2 is included all those important diagrams such as context diagram, component diagram and use case.
- **Construction Phase** – The construction phase focuses on the program and application development task. The three important tasks will be constructed is interface design by implementing heuristic 8 golden rules, implement the live code to the system and link all tables in the database. All the implementation of code will develop by using open source language (PHP and JQuery) and tool (MYSQL) that discussed in part 1.5
- **Cutover Phase** – The final task will be resembled including data conversion, testing, changeover to the new system and user training. The entire process is compressed. After finished this phase, the new system is built, delivered and placed on operation. Its tasks are data conversion, full-scale testing, system changeover and user training.

### 2.3.2 Implementation

In this subtopic will discuss about the important of source code and construction of database

#### 2.3.2.1 Coding for calendar event :

This is the coding to use to build a calendar which can auto detect current date

```

function goLastMonth(month, year){
    if(month == 1) {
        --year;
        month = 13;}
    --month
        var monthstring= ""+month+"";
        var monthlength = monthstring.length;
        if(monthlength <=1){
            monthstring = "0" + monthstring;}document.location.href ="
<?php $_SERVER['PHP_SELF'];?>?month="+monthstring+"&year="+year;}

function goNextMonth(month, year){
    if(month == 12) {
        ++year;
        month = 0;}
        ++month
            var monthstring= ""+month+"";
            var monthlength = monthstring.length;
            if(monthlength <=1){
                monthstring = "0" + monthstring;}
                document.location.href ="<?php
$_SERVER['PHP_SELF'];?>?month="+monthstring+"&year="+year;}
</script></head><body>
<?php
if (isset($_GET['day'])){
    $day = $_GET['day'];
    } else {
        $day = date("j");}
if(isset($_GET['month'])){
    $month = $_GET['month'];
    } else {
        $month = date("n");}
if(isset($_GET['year'])){
    $year = $_GET['year'];
    }else{
        $year = date("Y");    }
    $currentTimeStamp = strtotime( "$day-$month-$year");
    $monthName = date("F", $currentTimeStamp);

```

```

        $numDays = date("t", $currentTimeStamp);
        $counter = 0;
    ?>
    <table align="center" border='2' width="100px" height="50px" ><tr>
    <td><input type='button' value='<name='previousbutton' onclick
    ="goLastMonth(<?php echo $month.", ".$year?>)"></td>
    <td colspan='5'><?php echo $monthName.", ".$year; ?></td>
    <td><input type='button' value='>'name='nextbutton' onclick ="goNextMonth(
    <?php echo $month.", ".$year?>)"></td>
    </tr>
        <tr><td bgcolor="#96A2FA" >Sun</td>
        <td bgcolor="#96A2FA" >Mon</td>
        <td bgcolor="#96A2FA" >Tue</td>
        <td bgcolor="#96A2FA" >Wed</td>
        <td bgcolor="#96A2FA" >Thu</td>
        <td bgcolor="#96A2FA" >Fri</td>
        <td bgcolor="96A2FA" >Sat</td></tr>
    <?php echo "<tr>";
    for($i = 1; $i < $numDays+1; $i++, $counter++){
    $timeStamp = strtotime("$year-$month-$i");
        if($i == 1) {
            $firstDay = date("w", $timeStamp);
            for($j = 0; $j < $firstDay; $j++, $counter++) {
                echo "<td>&nbsp;&nbsp;&nbsp;</td>";
            }
            if($counter % 7 == 0) {
                echo "</tr><tr>";
            }
            $monthstring = $month;
            $monthlength = strlen($monthstring);
            $daystring = $i;
            $daylength = strlen($daystring);
            if($monthlength <= 1){
                $monthstring = "0".$monthstring;
            }
            if($daylength <=1){
                $daystring = "0".$daystring;
            }
            $todaysDate = date("m/d/Y");
            $dateToCompare = $monthstring. '/' . $daystring. '/' . $year;

            echo "<td align='center' ";
            if ($todaysDate == $dateToCompare)
            {
                echo "class ='today'";
            }
            else
            {
                $sqlCount = "select * from eventcalendar where eventDate='".$dateToCompare."'";
                $noOfEvent = mysql_num_rows(mysql_query($sqlCount));
                if($noOfEvent >= 1)
                {

```

```

    echo "class='event';} }echo "><a
href="$_SERVER['PHP_SELF']."?month=".$monthstring."&day=".$daystring."&year
=".$year."&v=true">".$.i."</a></td>";}
    echo "</tr>";
    ?>
</table>
</br>

```

### 2.3.2.2 Coding of delete booking event

This coding is to let customer can have delete function to cancel the booking

```

<?
$objConnect = mysql_connect("localhost","root","") or die(mysql_error());
$objDB = mysql_select_db("cb10035");
$objResult = mysql_query("SELECT * FROM eventcalendar") or die("error in selection
table");
$myrow = mysql_fetch_array($objResult);
if($_GET["Action"] == "Del")
{
    $strSQL = "DELETE FROM eventcalendar ";
    $strSQL .= "WHERE ID = ".$_GET["ID"]." ";
    $objQuery = mysql_query($strSQL);
    if(!$objQuery)
    {
        echo "Error Delete [" .mysql_error()."]";
    }
    //header("location:$_SERVER[PHP_SELF]");
    //exit();
}

$strSQL = "SELECT * FROM eventcalendar where useric =
".$_SESSION['SESS_user_no_ic']." ";
$objQuery = mysql_query($strSQL) or die ("Error Query [".$strSQL."]);
?>
<form name="frmMain" method="post" action="<?=$_SERVER["PHP_SELF"];?>">

```



### 2.3.2.3 Coding for insert event:

This part of coding is to let user add booking event into database.

```

<?php
    if(isset($_GET['v'])) {
        echo "<hr>";
        echo "<a href='".$_SERVER['PHP_SELF']."'?month=".$_month."&day=".$_
day."&year=".$_year."&v=true&f=true">Add Event</br></a>";
        if(isset($_GET['f'])) {
            include("eventform.php");
        }
        if(isset($_GET['add'])){
            $title = $_POST['txttitle'];
            $detail = $_POST['txtdetail'];
            $time = $_POST['txttime'];
            $enddate = $_POST['enddate'];
            $sendtime = $_POST['txtendtime'];
            $eventdate = $month."/".$day."/".$year;
            $sqlinsert = "INSERT into
eventcalendar(useric,Title,Detail,time,enddate,endtime,eventDate,dateAdded)
values
('".$_user_no_ic."','".$title."','".$detail."','".$time."','".$enddate."','".$sendtime."','".$
eventdate."',now())";
            $resultinginsert = mysql_query($sqlinsert);
            if($resultinginsert ){
                echo "<p style='color: red'><strong>Event was
successfully Added...<strong></p>";
                echo "To check your submitted booking please
check your<a href='pinjamkenderaan_view.php'> Booking Status</a>";
                echo "<br/>";
            }else{
                echo "Event Failed to be Added....<br/>";
            }
        }
    }
}
?>

```

### 2.3.2.4 Coding for session

This coding is use to detect the current user is using the system and to ensure

```

<?php
session_start();
error_reporting(0);
if(! isset($_SESSION['SESS_user_no_ic'])){
header("location: ../index.html");
}
?>

```

### 2.3.2.5 Coding for drag drop function:

This is the JavaScript coding which control drag and drop moment.

```

<script language="JavaScript" type="text/javascript">
$(document).ready( function() { $('#ClickWordList li').click(function() {
$('#txtMessage').insertAtCaret($(this).text());
    return false});
$('#DragWordList li').draggable({helper: 'clone'});
$('#DragWordList2 li').draggable({helper: 'clone'});
$('.txtDropTarget').droppable({accept: "#DragWordList li",
    drop: function(ev, ui) {
        $(this).insertAtCaret(ui.draggable.text());}    });    });
$.fn.insertAtCaret = function (myValue) {
    return this.each(function(){
        if (document.selection) {    this.focus();
        sel = document.selection.createRange();
        sel.text = myValue;
        this.focus();}
        else if (this.selectionStart || this.selectionStart == '0') {
            var startPos = this.selectionStart;
            var endPos = this.selectionEnd;
            var scrollTop = this.scrollTop;
            this.value = this.value.substring(0, startPos)+ myValue+
            this.value.substring(endPos,this.value.length); this.focus();
            this.selectionStart = startPos + myValue.length;
            this.selectionEnd = startPos + myValue.length;
            this.scrollTop = scrollTop; } else {
            this.value += myValue; this.focus();    }    });
    };
</script>

```

## 2.4 Testing plan

User acceptance test and system functional test have been carried out to ensure the system is achieved requirement of client. User acceptance sign of form can refer to the Appendix B

### 2.4.1 Test case and test result

In this sub topic will described all the test cases and analysis the result of the system. Once the system passed implementation phrase, testing will followed by. There are few testing plan has been arranged to test the system, which is assigned by modules in the system. Test case is specially design for each of the module to test specified function of system. Below are the test cases and summaries of result. Basically most of the outcome results are true

**Table 12: Test cases and results**

<b>ID</b>	<b>Test Case</b>	<b>Expected Output</b>	<b>Result</b>	<b>Remark</b>
SUK-DCS-01-SFT-001	User registration	User will successfully register themselves.  Invalid input causes unsuccessful registration	Pass	Registration form with attached error handling.
SUK-DCS-02-SFT-001	User login	User will able to login with valid combination of password and No IC.  Invalid input causes login fail	Pass	
SUK-DCS-03-	Make vehicle	User will able to make	Pass	Error handling has been code

SFT-001	booking	booking of vehicle.  All information must be inserted in order to success the booking process		to avoid serious mistake by user.
SUK-DCS-04-SFT-001	View booking status	User to check the status of booking	Pass	
SUK-DCS-05-SFT-001	Generate booking receipt	User will be able to view and generate receipt after the booking has been approved by admin.	Pass	
SUK-DCS-07-SFT-001	Booking cancellation	User will be able to cancel the booking	Pass	
SUK-DCS-08-SFT-001	Produce management report	User will be able to produce management report.	Pass	Report can be generate
SUK-DCS-09-SFT-001	Manage user profile	User will able manage own profile account, if they wish to update the profile.	Pass	
SUK-DCS-10-SFT-001	Manage vehicle	User will be able to manage vehicle	Pass	Manage vehicle by update,insert
SUK-DCS-11-SFT-001	View task	User will be able to view their task and vehicle will be used.	Pass	

SUK-DCS-12-SFT-001	Dynamic assignment task	User will be able to assign task via drag drop function.	Pass	
SUK-DCS-16-SFT-001	Search data	User able to use search function to search data	Pass	

## **PART III**

### **CONCLUSION**

Part three is the conclusion part which included limitation and advantages.

#### **3.0 Conclusion**

There are many techniques that can be used in order to develop the project, such as Rapid Application Method (RAD), Waterfall, System Development Life Cycle (SDLC) and etc. Those techniques are the platform of implemented the project using the certain way. The technique that has been applied must be reliable and applicable with the system and project that need to develop so the system will successfully develop and can be used. Technique is very important in order to develop the system because it shows the direction of the system development and implementation. The objective of the project will be achieved and successes with systematic direction of the system development.

Refer back to the original aims and objectives of report, three of the objective has been achieved, an interview draft and statistical analysis among user has been attached inside this report. There are % of customer, %driver and % staff agreed that this system create convenient and efficiency among them, besides that they can reduce cost of communicate less than previous week.

#### **3.1 Limitations**

However there is few limitation that cannot be done by the system, such as delete function has been excluded in this system, since client request to keep track all the data even the old database, client do not wish to delete any single data., hence delete function only prepared by customer to delete or cancel booking, while staff and admin has no

delete function. Second is regarding the calendar system. Data is shown outside the calendar in form of table. The data should shows directly inside the calendar table.

### **3.2 Advantages**

There is some strength part of the system. This system support different size of layout. For instance, tablet and cell phone can also using access this system with different screen layout. For convenient staff, drag drop assignment driver task function is specially design for them. They can easily assign driver task by only drag and drop, just one click of submit button, all tasks will be saved inside database.

### **3.3 Recommendation**

This system can continue research on how web site support several layout options (for desktop, tablet, smartphone landscape and portrait) to fit all popular screen resolutions. Besides that this system may implement techniques of scheduling in the future, instead of assign driver task by using drag drop function

## Appendix A: Terminologies table


**Table 13: Terminologies**

OS	<ul style="list-style-type: none"> <li>• Operating system, example: window 7, window XP</li> </ul>
MySQL	<ul style="list-style-type: none"> <li>• A relational database management system (RDBMS) that runs as a server providing multi-user access to a number of databases.[4]</li> </ul>
SQLYog	<ul style="list-style-type: none"> <li>• GUI tool for the Relational database management system(RDBMS) MySQL</li> </ul>
IMS	<ul style="list-style-type: none"> <li>• Internet management system</li> </ul>
PHP	<ul style="list-style-type: none"> <li>• Hypertext Preprocessor is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages[5]</li> </ul>
OOphp	<ul style="list-style-type: none"> <li>• Object-oriented PHP</li> </ul>
Java-script	<ul style="list-style-type: none"> <li>• Is a prototype-based scripting language that is dynamic, weakly typed and has first-class functions(sometimes abbreviated JS)[5]</li> </ul>
Html5	<ul style="list-style-type: none"> <li>• HTML5 is the enhance version of HTML. Is a web</li> </ul>
CSS	<ul style="list-style-type: none"> <li>• Is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language [6]</li> </ul>
Apache server	<ul style="list-style-type: none"> <li>• Apache HTTP server</li> </ul>
SUK	<ul style="list-style-type: none"> <li>• Setiausaha Kerajaan</li> </ul>
DCS	<ul style="list-style-type: none"> <li>• Dynamic calendar system</li> </ul>
SFT	<ul style="list-style-type: none"> <li>• System functional test</li> </ul>





## Appendix C: Manually booking form

	<b>BORANG PERMOHONAN PENGGUNAAN KENDERAAN</b> <b>PEJABAT SETIAUSAHA KERAJAAN PAHANG</b> Bahagian Khidmat Pengurusan, Tingkat 1, Blok B, Wisma Sri Pahang No. Telefon: 09-5126651 No. Faks: 09-5163443	<b>SUK.PHG.PKS.10.01</b>
		<b>Pindaan 1 / 01.07.2011</b>

**SILA BACA SEBELUM ISI : SYARAT-SYARAT**

- Borang permohonan hendaklah diserahkan ke Bahagian Khidmat Pengurusan seawal-lewatnya 5 hari bekerja sebelum tarikh penggunaan bagi permohonan kereta / 4WD / MPV dan lain-lain manakala bagi bas tidak seawal-lewatnya 7 hari bekerja sebelum tarikh penggunaan.
- Borang ini hendaklah diisi dengan lengkap dan jelas serta disahkan oleh Ketua Bahagian / Unit.
- Borang permohonan yang tidak lengkap dan permohonan melalui telefon tidak akan diproses.
- Permohonan akan dipertimbangkan tertakluk kepada kekosongan kenderaan / pemandu.
- Borang permohonan penggunaan kenderaan boleh didapati di Portal Pahang di ruangan Must Turun atau di Bahagian Khidmat Pengurusan.

**A. MAKLUMAT PEMOHON**

Butiran Pengguna	Butiran Penggunaan																							
1. Nama : .....	11. Tujuan : (sila lengkapkan surat arahan)																							
2. Jawatan : .....	12. Destinasi : (alamat lengkap)																							
3. Jab/Bhg/Unit : .....	13. Alamat Tempat Mengambil : <input type="checkbox"/> Pejabat : ..... (Nyatakan lokasi) <input type="checkbox"/> Rumah : ..... / Lain-Lain (alamat lengkap)																							
4. No. Telefon HP : .....		(Sila tandakan X pada kotak yang berkenaan)																						
5. No. Telefon Pejabat : .....	14. Alamat Tempat Menghantar Setelah Selesai Aktiviti : <input type="checkbox"/> Pejabat <input type="checkbox"/> Rumah / Lain-Lain (Sila tandakan X pada kotak yang berkenaan)																							
6. No. Faks : .....		15. Tarikh Perjalanan																						
<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">UNTUK KEGUNAAN PEJABAT (BAHAGIAN KHIDMAT PENGURUSAN)</th> </tr> <tr> <th colspan="2">Perkara yang perlu ditanggung oleh pihak Jabatan pemohon (Tanda X):</th> </tr> </thead> <tbody> <tr> <td>Bahan api</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Tdf</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Elaun perjalanan dan lebih masa pemandu</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Insurans penumpang dan pemandu (bas)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Bayaran mencuci bas (RM120.00 / RM90.00)</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	UNTUK KEGUNAAN PEJABAT (BAHAGIAN KHIDMAT PENGURUSAN)		Perkara yang perlu ditanggung oleh pihak Jabatan pemohon (Tanda X):		Bahan api	<input type="checkbox"/>	Tdf	<input type="checkbox"/>	Elaun perjalanan dan lebih masa pemandu	<input type="checkbox"/>	Insurans penumpang dan pemandu (bas)	<input type="checkbox"/>	Bayaran mencuci bas (RM120.00 / RM90.00)	<input type="checkbox"/>	<table border="1" style="width: 100%;"> <thead> <tr> <th>Perjalanan</th> <th>Tarikh / Hari</th> <th>Masa (perlu diambil/hantar oleh pemandu)</th> </tr> </thead> <tbody> <tr> <td>Pergi</td> <td></td> <td></td> </tr> <tr> <td>Balik</td> <td></td> <td></td> </tr> </tbody> </table>	Perjalanan	Tarikh / Hari	Masa (perlu diambil/hantar oleh pemandu)	Pergi			Balik		
UNTUK KEGUNAAN PEJABAT (BAHAGIAN KHIDMAT PENGURUSAN)																								
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Bahan api	<input type="checkbox"/>																							
Tdf	<input type="checkbox"/>																							
Elaun perjalanan dan lebih masa pemandu	<input type="checkbox"/>																							
Insurans penumpang dan pemandu (bas)	<input type="checkbox"/>																							
Bayaran mencuci bas (RM120.00 / RM90.00)	<input type="checkbox"/>																							
Perjalanan	Tarikh / Hari	Masa (perlu diambil/hantar oleh pemandu)																						
Pergi																								
Balik																								
<b>7. Jenis Kenderaan Dipohon</b> Kereta <input type="checkbox"/> 4WD <input type="checkbox"/> MPV <input type="checkbox"/> Bas <input type="checkbox"/> Lain-lain. Nyatakan ..... (Sila tandakan X pada kotak yang berkenaan)	<b>8. Jumlah Kenderaan</b> ..... buah. <b>9. Bilangan Penumpang</b> ..... orang (Sila lengkapkan Lampiran A) <b>10. Kemudahan Pemandu</b> (Sila bulat yang berkenaan) a. Penginapan Ya / Tidak b. Sajian Ya / Tidak																							
<b>16. Pengesahan dan Sokongan Ketua Jabatan/Bahagian/Unit</b> Tandatangan & Cop : ..... Tarikh : .....																								

**B. UNTUK KEGUNAAN PEJABAT (BAHAGIAN KHIDMAT PENGURUSAN)**

<input type="checkbox"/> Lulus	<input type="checkbox"/> Tidak Lulus	<b>ARAHAN MEMANDU</b>		
Catatan : .....		Nama Pemandu	No. Kenderaan	No. HP
		1		
		2		
		3		
		4		
Tarikh	Tandatangan Pegawai & Cop	tandatangan pengguna kenderaan.		

Figure 17: Appendix C

### Appendix D: Driver's schedule (driver view)

**JADUAL TUGAS PEMANDU BAGI BULAN JULAI 2011**

NAMA PEMANDU :

GED : :

BIL.	TARIKH / MASA	NO. KENDERAAN	PENGGUNA / JABATAN	TUJUAN	DESTINASI

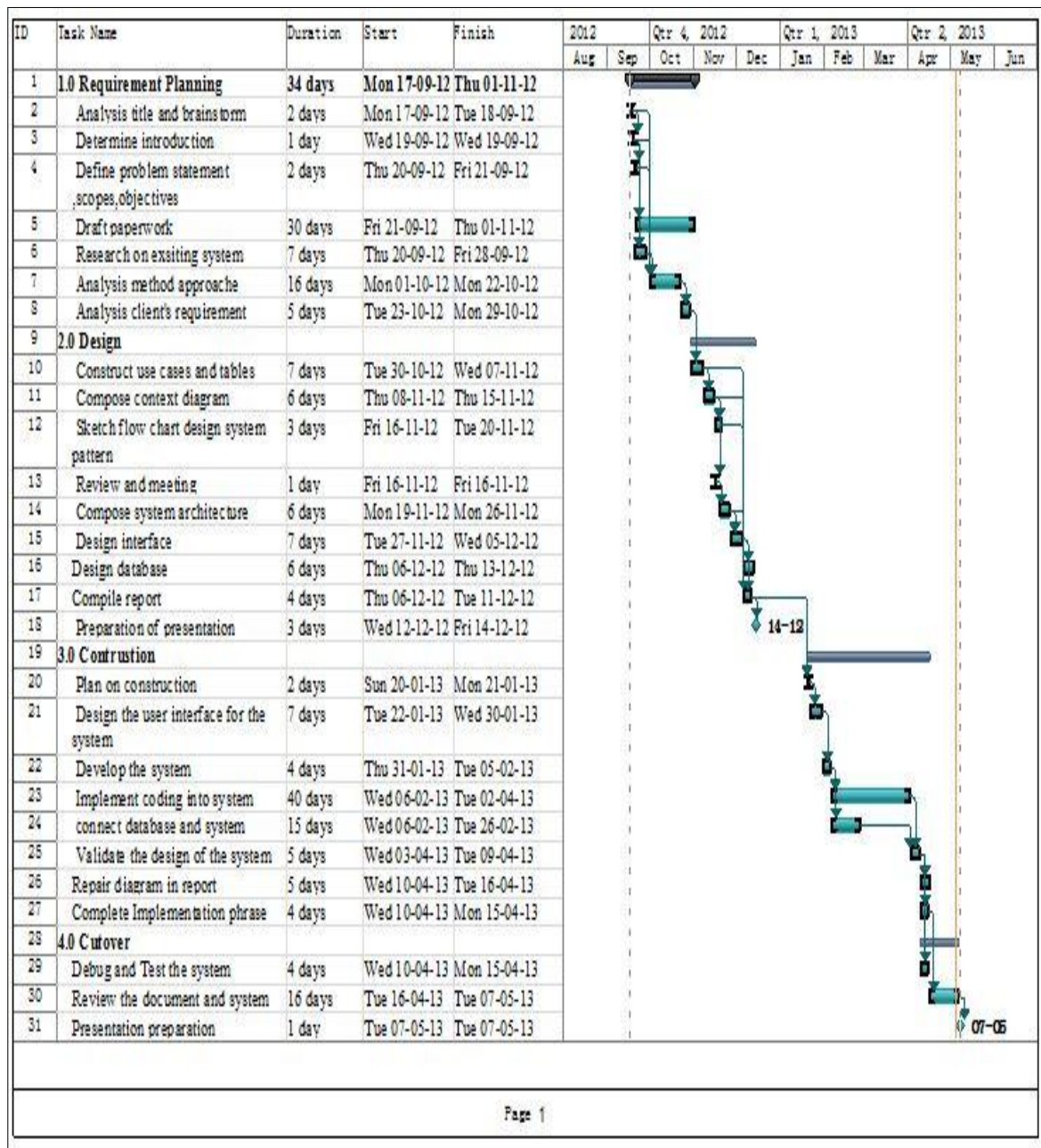
Figure 18: Appendix D

### Appendix E: Staff assign driver's task (monthly view)

JADUAL TUGAS PEMANDU KENDERAAN POOL PEJABAT SUK PAHANG BAGI BULAN JULAI 2011													NOMBOR KENDERAAN
HARI	TARIKH	AHMAD	BRAHIM	KHAIFUDDIN	NASAR	MUTALIB	KHAIRUL	HAFIZUL	MASTIDA	ZMI	NAZAR	ARIF	
JUMAAT	1												CAP 789
SABTU	2												CAT 3759
AHAD	3												CCE 4384
ISNIN	4												CCE 4378
BELASA	5												CAL 5016
RABU	6												CBD 1889
KHAMIS	7												CBW 38
JUMAAT	8												CAA 1111
SABTU	9												MERCEDES
AHAD	10												CAF 6789
ISNIN	11												CAP 232
BELASA	12												PERDANA
RABU	13												CBC 575

Figure 19: Appendix E

## Appendix F: Gantt chart



## Appendix G: Requirement Sign off

### Project Requirement sign off

Dynamic web-based driver assignment task calendar system (DCS) *developed by* University Malaysia Pahang (UMP)

**Project Name:** Dynamic web-based driver assignment task calendar system (DCS)

**Customer:** Setiausaha kerajaan Pahang (SUK)

**Date:** 03.02.2013(February 03,2013)

The project requirements has been measured and analysis

- **Requirement ( i ) : Web based calendar system**
- **Requirement ( ii): Dynamic drag drop to assign driver task**

Unless otherwise noted, the project requirement will not accept any changes.

(Customer - Signature)

(Project Manager)

(Company Name)

(Signature & Date)

(Date)

(Project Evaluation Board)

(Customer Stamp)

(Signature & Date)

## Appendix H: Testing Sign off

### Project Client Acceptance and sign off

Dynamic web-based driver assignment task calendar system (DCS) *developed by* University Malaysia Pahang (UMP)

**Project Name:** Dynamic web-based driver assignment task calendar system (DCS)  
**Customer:** Setiausaha kerajaan Pahang (SUK)  
**Date:** 17.05.2013(May 17,2013)

The project outcome has been measured against its acceptance criteria and has been formally accepted on behalf of the client.

Unless otherwise noted, the project may now be closed.

(Customer - Signature)

(Project Manager)

(Company Name)

(Signature & Date)

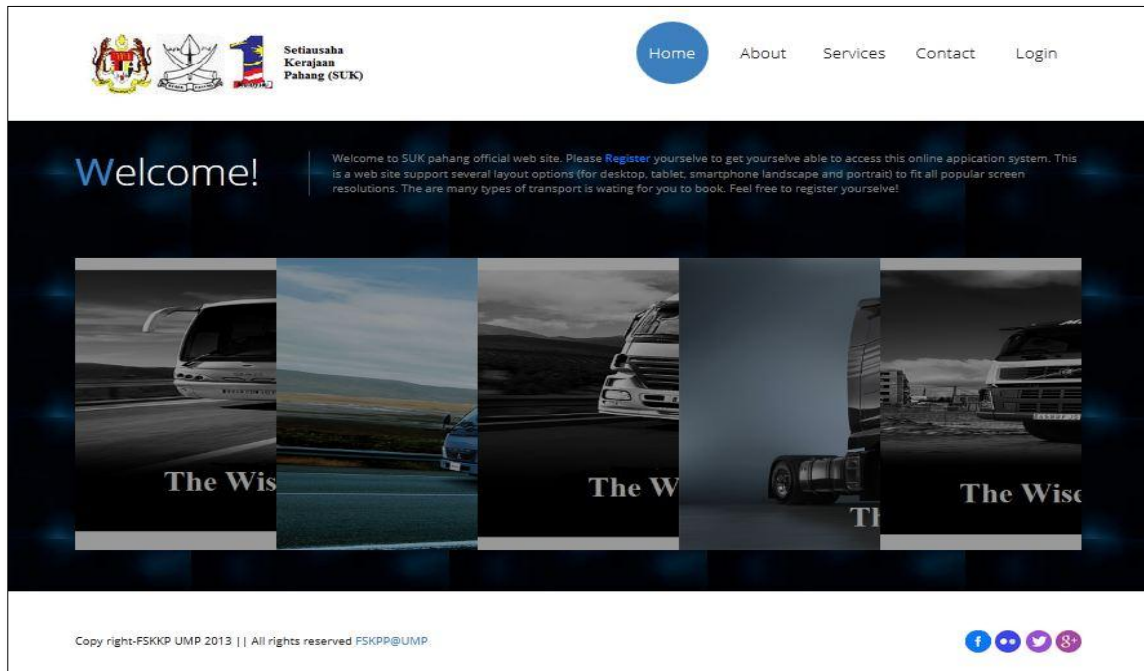
(Date)

(Project Evaluation Board)

(Customer Stamp)

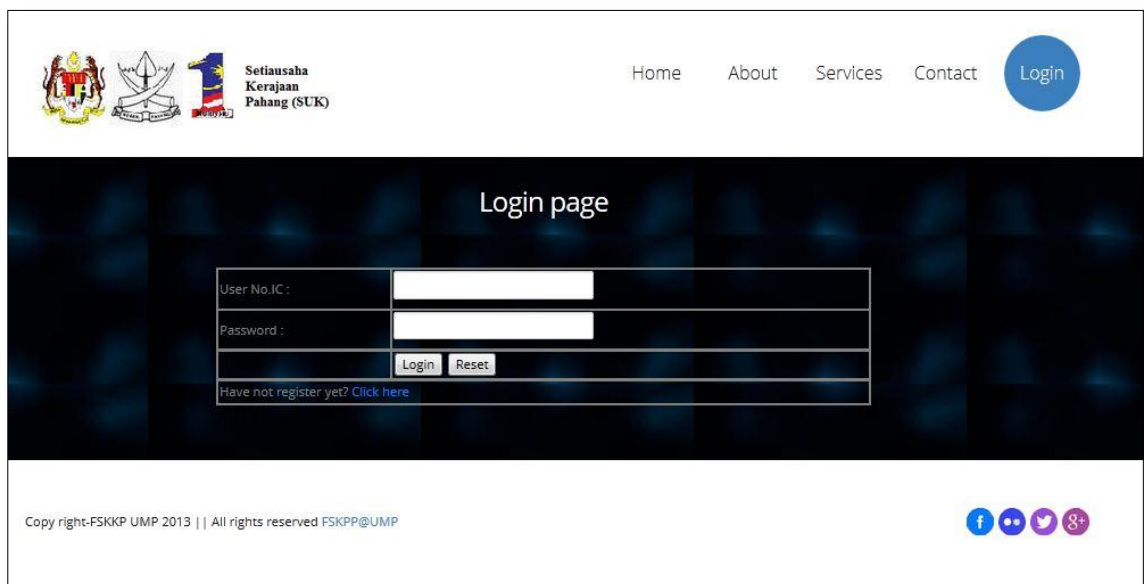
(Signature & Date)

## Appendix I: User Manual



**Figure 20:Home Page**

This is the home page for the system; it consists of few tabs above, which is about page, services page, contact page and login page. User like drivers, staffs, customers and admin can login to their own page will correct combination of no IC and password.



**Figure 21: Login page**

Another feature which is using bootstrap to detect the screen size and auto adjust the page size. This above figure is the interface of home pages after smaller the screen size.

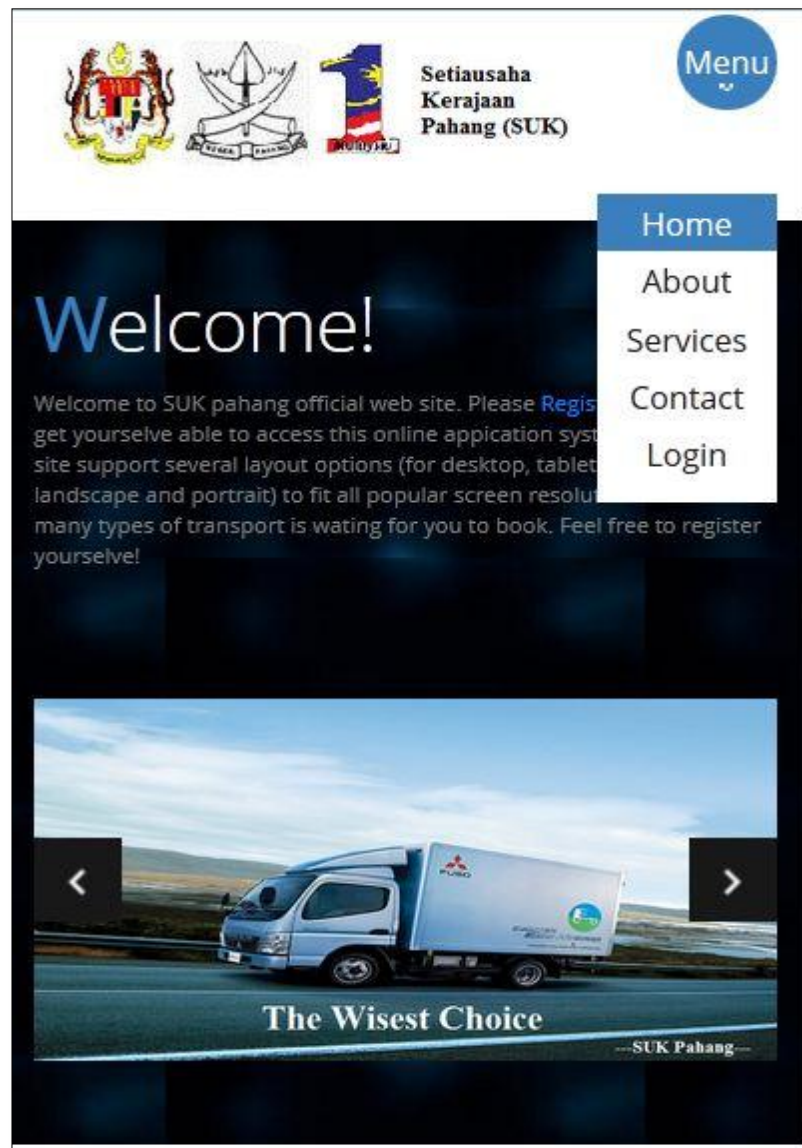


Figure 22: Bootstrap effect



This is the interface after customer login, they can update their own account profile.

Detail	Info/Date
Number IC	561226
First Name	PAZULIH
Last Name	ABDULLAH
E-mail	caidm@gmail.com
Contact number	012 3456789
Address	wutala cmg
Postcode	1234
City	mp
State	Kedah
Company Name	4322
Company address	kl sad
Postcode	43
City	43
State	Kedah
Office number	123
Fax Number	1209090
Status	AKTIF

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Figure23: customer profile

Besides that, they can check their booking status. They can cancel their booking by clicking 'delete' button on the booking table and also generate booking receipt by clicking 'more' button. The document will download to their desktop. Inside the document can clearly know about driver and vehicle being assigned. Those with empty vehicle and driver which mean the booking is still in the process

ID	Title	Detail	Event date	Time	End date	End time	Driver	Vehicle	Detail	Delete
56	officially test re	wewe	05/21/2013	17:00:00	05/22/2013	03:00:00			More	Delete
55	tesing 28	clck 28 frm 13, to 13	05/13/2013	17:00:00	05/13/2013	19:00:00			More	Delete
44	hehehe	number1	05/15/2013	17:00:00	25 05 2013	18:00:00			More	Delete
40	serengganu pertandingan drama	1 bus, 1 driver	04/30/2013	16:00:00	25 04 2013	18:00:00	COU 7231	COU 7231	More	Delete
39	Pulau redang	1 bus, need1 vehicle	04/30/2013	16:00:00	02 05 2013	18:00:00	COU 7231	COU 7231	More	Delete
30	test2	test2	04/28/2013	19:00:00	01 05 2013	18:00:00	901009	WKL 2037	More	Delete

Opening SUKbookingReceipt.doc

You have chosen to open:

**SUKbookingReceipt.doc**  
which is a: Microsoft Word 97 - 2003 Document (4.2 KB)  
from: http://localhost

What should Firefox do with this file?

Open with **Microsoft Word (default)**

Save File

Do this automatically for files like this from now on.

OK Cancel

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Figure24: booking status

Setiasaha Kerajaan Pahang (SUK)

Home Booking vehicle Status Logout

**The Wisest Choice**  
--SUK Pahang--

### Booking Calendar

May, 2013						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Add Event

Subject:

Detail:

From:

Time:

to:

End Time:

May 2013						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

**Figure 25: booking vehicle calendar**

This is the booking vehicle interface, user can check the day whether has booking or not. Green color represents the date of day. While yellow color represents there is a booking being make by customer. Customer can choose a date, follow by clicking the add event hyperlink, a drop down form will appear. After filling the detail of booking, a reservation has been dropped to database and waiting for staff approval

Staff login will redirecting to staff home page, they can manage vehicle by display it, edit it or add new vehicle.

Setiausaha Kerajaan Pahang (SUK)

Manage Vehicle Driver Assignment Task Logout

### Manage Vehicle

No. Pendaftaran	Pemilik Kenderaan	Display Detail	Edit Detail	Add vehicle
21343	suk	Display	Edit	
23462563	876876	Display	Edit	
456365	876876	Display	Edit	
8768766897	876876	Display	Edit	
CAJ 5633	fsdf	Display	Edit	

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Figure26: Staff manage vehicle

This is the interface of display vehicle page.

### Vehicle Detail

Barang Pendaftaran Kenderaan			
No. Pendaftaran :	21343		
No. Siri :	WKL 2007		
Nama Pemunya		Maklumat Pemilik	
Nama Pertama :	suk	Nama Syarikat :	nn
Nama Akhir :	suk	Alamat :	nn
Alamat :	1223		nn
	133	Poskod :	125777
Poskod :	123333	Bandar :	kkjj
Bandar :	33333	Negeri :	Pahang
Negeri :	Pahang	No. Telefon HP :	09 - 6722222
		No. Faks :	222222
		Email :	jkj@hg
Maklumat Terperinci Kenderaan			
No. Enjin :	35454534	Tarikh Pendaftaran :	3425345
No. Card :	534522454	Status Pemunya :	433345
Buatan :	243454534	Bilangan Penumpang :	2345
Nama Model :	32452345	Tarikh Tamat Cukai Jalan :	23452345
Kemampuan Enjin :	4524	Harga Kenderaan :	30453
Bahan Bakar :	504354	No. Invois :	5234533
Warna :	435	No. Pesanan Kerajaan :	5432523
Kelas Kegunaan :	452	Penempatan Kenderaan :	452345435
Tenis Barian :	345	Muat Naik Gambar Kenderaan :	452
Tahun Dibuat :	3245	Pegawai/Pemandu Yang Bertanggungjawab Ke Atas Kenderaan :	X

Kembali

Figure27: Staff display vehicle

Setiusaha Kerajaan Pahang (SK)

Manage Vehicle Manage booking Logout

### Booking Calendar

Generate report

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

### Driver assignment task

<b>Driver</b>	<b>ID:</b> 42	<b>Vehicle</b>
810829	<b>Subject:</b> testing	WKL 2037
841102	<b>Detail:</b> ehehehehe	BHY 8743
850822	<b>Time:</b> 05:00:00	DAH 8996
901009	<b>End Date:</b> 25.04.2013	COU 7231
Booking Rejected	<b>End Time:</b> 17:00:00	JLS 6721
	<b>Driver:</b>	Booking Rejected
	<b>Vehicle:</b>	
	<input type="submit" value="submit"/>	

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**Figure 28: Staff assign driver task**

The figure above is interface of staff manage booking, staff can check the booking of each day. Staff can assign vehicle and driver by drag drop function provided. The left alignment box is the no IC of driver, while right alignment box is vehicle number plate. Staff can drag the driver name and drop it into driver textbox. Lastly staff can save the data into database by clicking the submit button below.

This is the main page of admin .Admin can manage users by display the detail of all users, besides that admin can add user(driver and staff only) by register them into the system database

No. IC	Staff name	Papar
43	363565 4645y4	Papar
87	salin salin	Papar
561226	FAIZUDIN ABDULLAH	Papar
650707	426454 654646	Papar
810829	MASTODA KOTA	Papar
840313	nisaa 868076	Papar
841102	ZAINUDIN maloi	Papar
850822	NUR HADI	Papar
864646	lalata lalata	Papar
870407	fatimah nursujaiha	Papar
871226	Nurhashina Hashim	Papar
888888	SAYA NISA SAYA	Papar
890520	NISA NIEYS	Papar
890909	NINI NINI DISINI	Papar
891009	ie nisa	Papar
901009	ARIF balssam	Papar
2147483647	nisaa nieys	Papar

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Figure29: Admin profile

The above figure shows the registration of admin for user (driver and staff only)

\*Sila lengkapkan maklumat yang diperlukan di ruangan yang telah disediakan.

Borang Pendaftaran Staf

No. Kad Pengenalan :	<input type="text"/>	*(cth: 89010112341)
Password :	<input type="password"/>	*
Nama Pertama :	<input type="text"/>	*
Nama Akhir:	<input type="text"/>	*
Emel :	<input type="text"/>	*(cth: staf@gmail.com)
No. Telefon HP :	Sila Pilih <input type="text"/>	*
Alamat Rumah :	<input type="text"/>	*
Poskod :	<input type="text"/>	*(cth: 25100)
Bandar :	<input type="text"/>	*
Negeri :	Sila Pilih <input type="text"/>	*
Nama Jabatan :	<input type="text"/>	*
Alamat Jabatan :	<input type="text"/>	*

Figure 29: Admin register staff

In addition, admin can view the vehicle report.

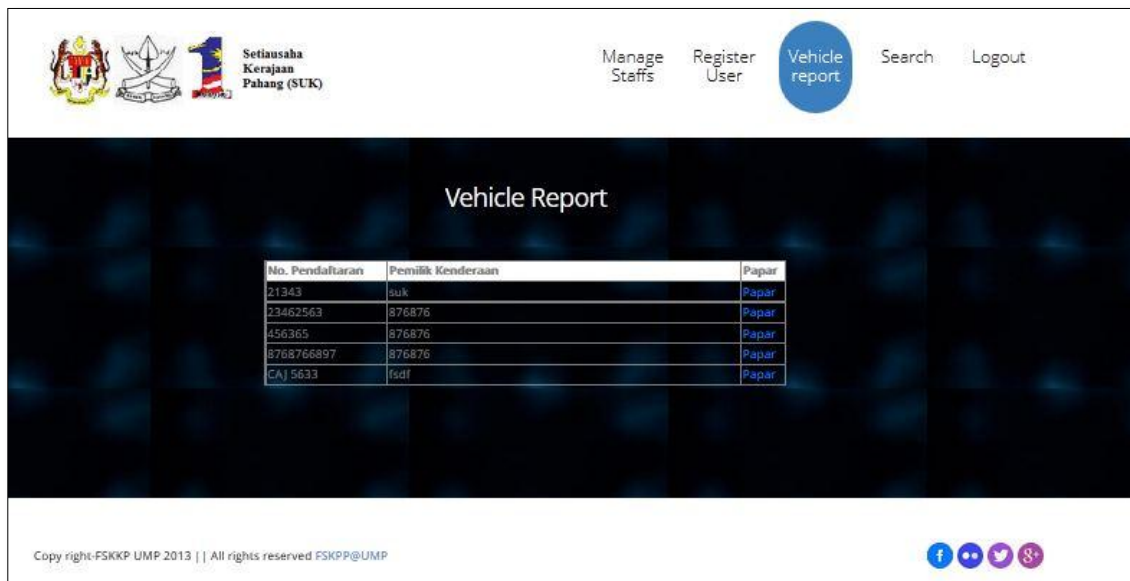


Figure 30: Admin check vehicle report

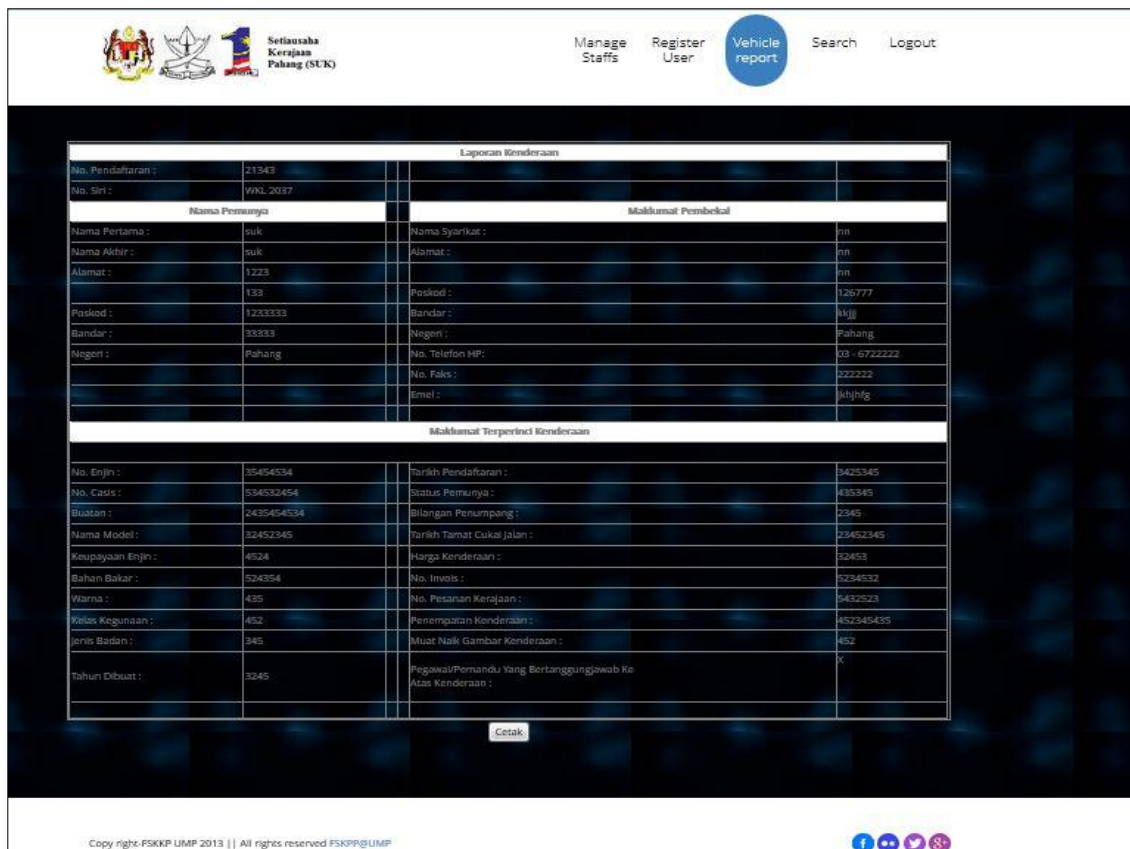


Figure 31: Admin generate vehicle report

Admin also can generate the vehicle report by click the print button

The search function is coded for admin usage, they can search the user in the system.

Setiausaha Kerajaan Pahang (SUK)

Manage Staffs Register User Vehicle report Search Logout

The Wisest Choice  
--SUK Pahang--

Search

You may enter your key word below

send Query

Results:

Minimum length is 3

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**Figure33: Search function**

The last interview in the system is driver assignment task, driver can login their own profile account to check their task.

Setiausaha Kerajaan Pahang (SUK)

Home Driver Task Logout

Driver task

ID	Title	Detail	Event date	Time	End date	End time	Driver	Vehicle
41	gtrgrg	rgergerg	04/24/2013	16:00:00	17.04.2013	19:00:00	901009	WKL 2037
36	test2	test2	04/26/2013	19:00:00	01.05.2013	18:00:00	901009	WKL 2037

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**Figure 34: driver task**

## Appendix J: Turn it in plagiarism checker

The screenshot displays the Turnitin interface for a document titled "DCS BY LEE LAY KHOON". The document content is centered and reads:

DYNAMIC WEB-BASED DRIVER TASK  
 ASSIGNMENT SYSTEM CALENDAR  
 PROJECT

LEE LAY KHOON

DEGREE:  
 BACHELOR OF SCIENCE

UNIVERSITY:  
 UNIVERSITI MALAYSIA PAHANG

The right-hand side of the interface shows a "Match Overview" panel with a total similarity score of 19%. The matches are listed as follows:

Match ID	Source	Similarity
23	Submitted to Higher Ed... Student paper	<1%
24	www2.giac.org Internet source	<1%
25	Submitted to Sunway Student paper	<1%
26	Submitted to Universit... Student paper	<1%
27	Submitted to Universit... Student paper	<1%
28	networkserver.co.za Internet source	<1%
29	www.seat.utulsa.edu Internet source	<1%
30	www.lvmedia.co.uk Internet source	<1%
31	effectivesites.gr Internet source	<1%

Figure 35: Turn it in

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[http://ieeexplore.ieee.org/search/srchabstract.jsp?tp=&arnumber=1180963&queryText%3Dinformation+management+system+provides+to+implement+process%26openedRefinements%3D\\*%26filter%3DAND%28NOT%284283010803%29%29%26searchField%3DSearch+All](http://ieeexplore.ieee.org/search/srchabstract.jsp?tp=&arnumber=1180963&queryText%3Dinformation+management+system+provides+to+implement+process%26openedRefinements%3D*%26filter%3DAND%28NOT%284283010803%29%29%26searchField%3DSearch+All)
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