A Project Report On "Online Car Rental System"

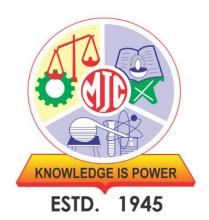
Submitted in the partial Fulfilment of the Requirements

of

BSc (Computer Science)

Submitted By,

"JAYESH MAHESH SAVANT"



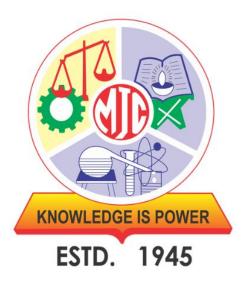
Khandesh College Education Society's M. J. College Jalgaon

An autonomous Institute Affiliated to Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon

Academic Year:- 2021 - 2022

Guided By

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Department Of Computer Science (BSc)

CERTIFICATE

This is to certify that the project titled "Online Car Rental System" has been done by Mr. Jayesh Savant under my guidance in practical fulfillment of BSc (Computer Science) of Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon, during the academic year 2021/2022. To the best of my knowledge and belief this work has been submitted,

Elsewhere for award of any other degree.

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I acknowledge most sincerely and respectfully Mrs. Hemlata H Patil, Head of Department of BSc (Computer Science), Khandesh College Education Society's M. J. College Jalgaon

We are grateful to our project guide Mrs. Swapnali P Waghulade for the guidance, inspiration and constructive suggestions that helped us in the preparation of this project.

Finally, I appreciate my colleagues and friends who kindly offered their suggestions, comments, and criticism for the improvement of this report.

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ABSTRACT

The Car Rental System is being developed for customers so that they can book their vehicles from any part of the world. This application takes information

from the customers through filling their details. A customer being registered in the website has the facility to book a vehicle which he requires.

The proposed system is completely integrated online systems. It The automates manual procedure in an effective and efficient way. This automated system facilitates customer and provides to fill up the details according to their requirements. It includes type of vehicle they are trying to hire and location. The purpose of this system is to develop a web site for the people who can book their vehicles along with requirements from any part of the world.

In this Car Rental System, there are Three Phases, they are:

- The first phase involves the grouping of car rental locations into pools, allowing car rental locations within a pool to share a fleet of vehicles.
- In the second phase, the types and quantities of vehicles to be acquired and returned to the car manufacturer and the geographical redistribution of vehicles among pools over the long-term planning horizon are defined for each pool.
- The final phase involves the daily operations in which the deployment of thefleet within each pool among its locations is defined

INTRODUCTION TO ONLINE CAR RENTAL SYSTEM

1.1 Introduction

This project is designed so as to be used by Car Rental Company specializing in renting cars to customers. It is an online system through which customers can view available cars, register, view profile and book car.

1.2 Reason for the Project

The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between companies (services provider) and their customers of which car rental industry is not left out. This E-Car Rental System is developed to provide the following services:

- Enhance Business Processes: To be able to use internet technology to project the rental company to the global world instead of limiting their services to their local domain alone, thus increase their return on investment (ROI).
- Online Vehicle Reservation: A tools through which customers can reserve available cars online prior to their expected pick-up date or time.
- Customer's registration: A registration portal to hold customer's details, monitor their transaction and used same to offer better and improve services to them.
- Group bookings: Allows the customer to book space for a group in the case of weddings or corporate meetings (Event management).

1.3 Problem Statement

A car rental is a vehicle that can be used temporarily for a fee during a specified period. Getting a rental car helps people get around despite the fact they do not have access to their own personal vehicle or don't own a vehicle at all. The individual who needs a car must contact a rental car company and contract out for a vehicle. This system increases customer retention and simplify vehicle and staff management.

1.4 Aims & Objectives

- To produce a web-based system that allow customer to register and reserve car online and for the company to effectively manage their car rental business.
- To ease customer's task whenever they need to rent a car.

1.5 Scope

This project traverses a lot of areas ranging from business concept to computing field, and required to perform several researches to be able to achieve the project objectives. The area covers include:

- Car rental industry: This includes study on how the car rental business is being done, process involved and opportunity that exist for improvement.
- PHP Technology used for the development of the application.
- General customers as well as the company's staff will be able to use the system effectively.
- Web-platform means that the system will be available for access 24/7 except when there is a temporary server issue which is expected to be minimal.

Feasibility Report

2.1 Feasibility Report:-

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economical Feasibility

2.1.1 Technical Feasibility

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipments have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. It is a web based user interface for audit workflow at NIC-CSD. Thus it provides an easy access to the users. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified.

2.1.2 Operational Feasibility

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits.

2.1.3 Economic Feasibility

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

2.2 How Car Rental Services Work

A car rental is a vehicle that can be used temporarily for a period of time with a fee. Renting a car assists people to get around even when they do not have access to their own personal vehicle or don't own a vehicle at all. The individual who want to rent a car must first contact the car rental company for the desire vehicle. This can be done online. At this point, this person has to supply some information such as; dates of rental, and type of car. After these details are worked out, the individual renting the car must present a valid Identification Card.

Most companies throughout the industry make a profit based of the type of cars that are rented. The rental cars are categorized into economy, compact, compact premium,

premium and luxury. And customers are free to choose any car of their choice based on their purse and availability of such car at the time of reservation.

2.3 Benefits of Online Car Rental Services

- This online car rental solution is fully functional and flexible.
- It is very easy to use.
- This online car rental system helps in back office administration by streamlining and standardizing the procedures.
- It saves a lot of time, money and labour.
- Eco-friendly: The monitoring of the vehicle activity and the overall business becomes easy and includes the least of paper work.
- The software acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the customers.
- It provides custom features development and support with the software.

FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

3.1Functional Requirements

Requirement analysis is a software engineering technique that is composed of the various tasks that determine the needs or conditions that are to be met for a new or altered product, taking into consideration the possible conflicting requirements of the various users.

Functional requirements are those requirements that are used to illustrate the internal working nature of the system, the description of the system, and explanation of each subsystem. It consists of what task the system should perform, the processes involved, which data should the system holds and the interfaces with the user. The functional requirements identified are:

- a. Customer's registration: The system should allow new users to register online and generate membership card.
- b. Online reservation of cars: Customers should be able to use the system to make booking and online reservation.
- c. Automatic update to database once reservation is made or new customer registered: Whenever there's new reservation or new registration, the system should be able update the database without any additional efforts from the admin.
- d. Feedbacks to customers: It should provide means for customers to leave feedback.

3.2Non-Functional Requirements

It describes aspects of the system that are concerned with how the system provides the functional requirements. They are:

- a. Security: The subsystem should provide a high level of security and integrity of the data held by the system, only authorized personnel of the company can gain access to the company's secured page on the system; and only users with valid password and username can login to view user's page.
- b. Performance and Response time: The system should have high performance rate when executing user's input and should be able to provide feedback or response within a short time span usually 50 seconds for highly complicated task and 20 to 25 seconds for less complicated task.
- c. Error handling: Error should be considerably minimized and an appropriate error message that guides the user to recover from an error should be provided. Validation of user's input is highly essential. Also the standard time taken to recover from an error should be 15 to 20 seconds.
- d. Availability: This system should always be available for access at 24 hours, 7 days a week. Also in the occurrence of any major system malfunctioning, the system should be available in 1 to 2 working days, so that the business process is not severely affected.
- e. Ease of use: Considered the level of knowledge possessed by the users of this system, a simple but quality user interface should be developed to make it easy to understand and required less training.

HARDWARE AND SOFTWARE REQUIREMENTS

Contents:

- > Hardware Requirements
- > Software Requirements

• Hardware Requirements:

- > Intel Processor 2.0 GHz or above.
- 2 GB RAM or more.
- > 160 GB or more Hard Disk Drive or above.

• Software Requirements:

- ➤ Microsoft Windows 7/8/10 or Linux.
- > XAMPP (Mysql, Apache, PHP).
- ➤ Notepad++ or any other text editor.
- > Chrome or any other browser.

DATA FLOW DIAGRAMS

5.1 Data Flow Diagram (DFD)

A Data Flow Diagram (DFD) is a graphical representation that depicts the information flow and the transforms that are applied as data moves from input to output.

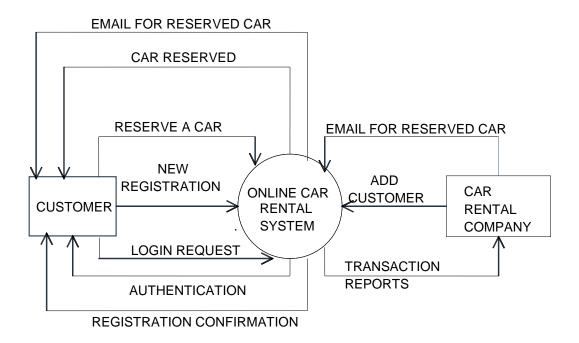


Figure 5.1 Level 0 DFD of Online Car Rental System

In this diagram, Customer and Car Rental Company are the two entity sets.

Functions of Customer:

- New Registration
- Login Request
- Registration Confirmation by the System

- Reserve Car
- Car Issued by the System
- Email received for Reserved Car

Functions of Car Rental Company:

- Add Customer
- Send E-Mails for Reserved Car
- View Transaction reports

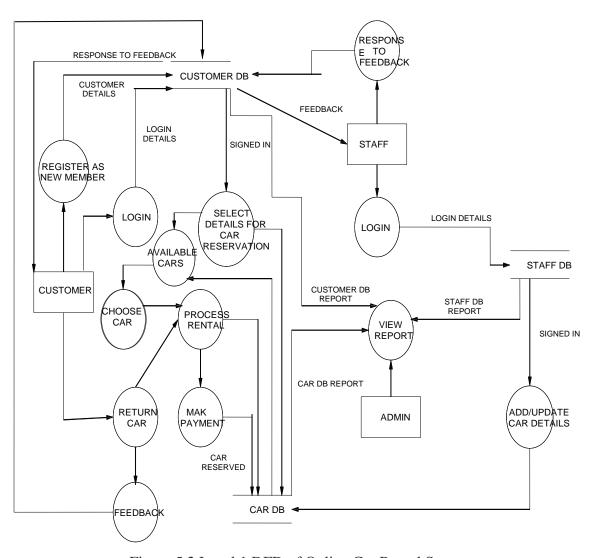


Figure 5.2 Level 1 DFD of Online Car Rental System

5.2 Actor and Use Case Description

Actor and use case description shows the detail description of interaction between the actors and their use cases. The description enables to have a proper understanding of how actor interacts with the system through their use cases.

Actor	Use Case	Use Case Description		
	Register as member	This use case describes the activities of the customer to register online and become a member. Customer's details are required as part of the registration. Login detail is automatically sent to the customer after successful registration.		
Customer	Make reservation	This use case enable customer to search and make reservation. Non-register customer will be directed to register before their reservation can be confirmed. Notification is automatically send to the customer after the task is completed.		
	Return car	This use case describes the event of customer returning the car borrowed, the use case extends "process rental" use case from the staff actor.		
	Give feedback	This use case is used by the customer to provide feedbacks/comment to the company; a confirmation notification will be send to the customer once a feedback has been submitted.		
Stoff	Add new car	This use case is used by the staff to add new car to the company's fleet database. Staff will need to login to activate this use case.		
Staff	Update car	This use case is used by the staff to edit and modify		

	details	car details whenever there is new renewal
		(insurance, road tax). It allows the company to keep up-to-date record of their fleet.
	Reply to	This use case describes the event by which staff
	customer's	sends reply to customer's earlier feedback. It
	feedback	depends on 'give feedback' use case from the
		customer.
	Process rental	This use case described the event by which staff
		updates the system when customer pick up or when
		returning car.
	Add new staff	This use case describes the event by which Admin
		add new staff detail to the company's staff database.
Admin		It is invoke whenever a new staff join the company.
	View report	This use case is used by the Admin to view
		transaction report.

Table 5.1 Actors and Use Case Description

5.3 Use Case Diagram

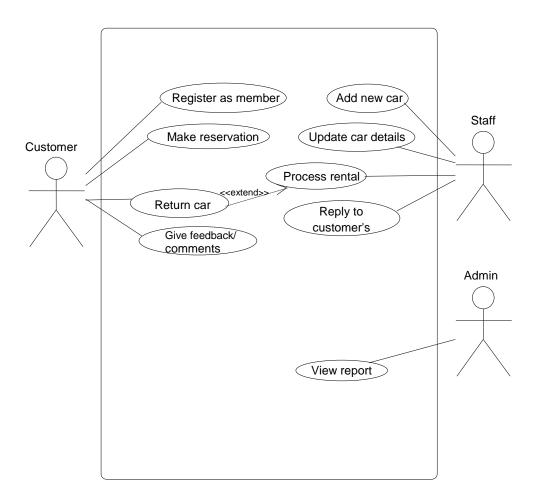


Figure 5.3: E-Car Rental System [use case]

5.4 Use-Case Dependency Diagram

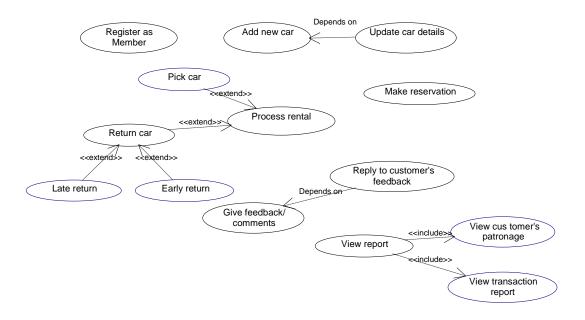


Figure 5.4: Use Case Dependency Diagram

5.5 Activity Diagram

Activity diagrams graphically represent the sequential business and operational workflows of a system. It is a dynamic diagram that shows the activity and the event that causes the object to be in the particular state. The workflows from activity diagram will serve as guide for system navigation in the final design phase of the system.

5.5.1 Member Registration

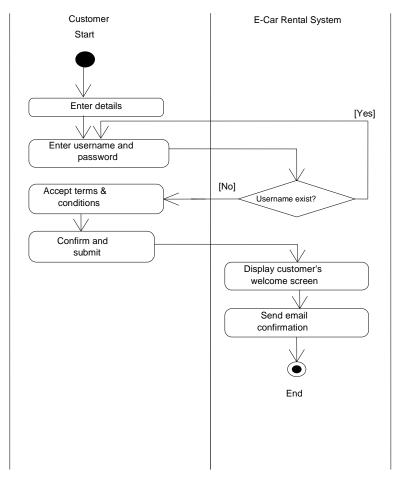


Figure 5.5: Register as member

5.5.2 Profile Modification

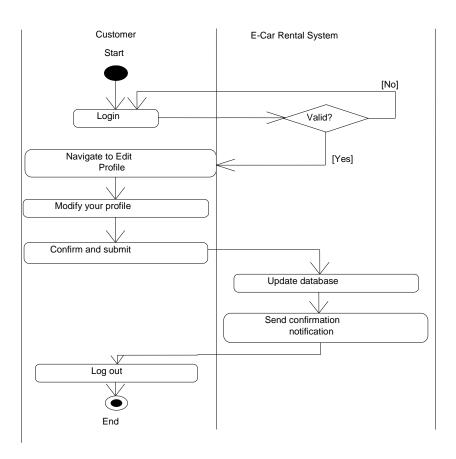


Figure 5.6: Modify profile

5.5.3 Reservation of Car

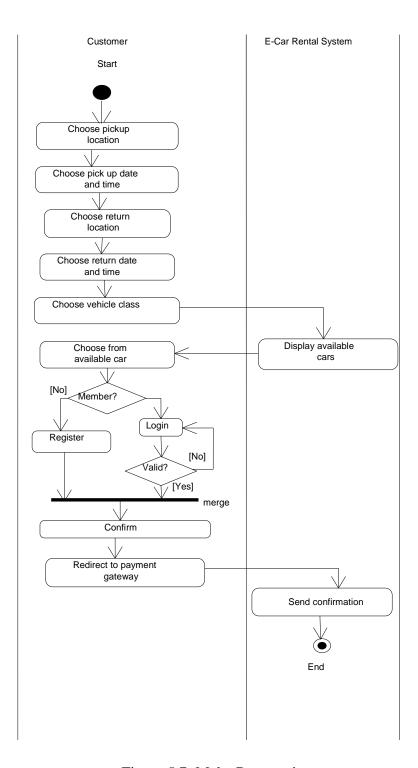


Figure 5.7: Make Reservation

5.5.4 Customer Feedback

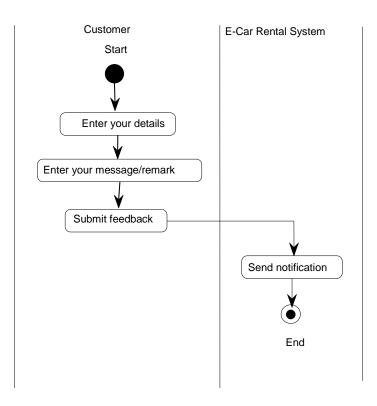


Figure 5.8: Give feedback/comment

5.5.5 Payment of Car Rent

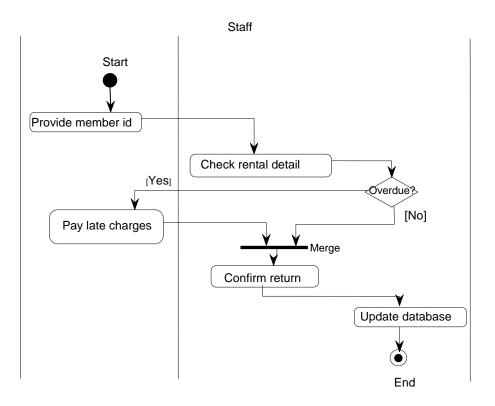


Figure 5.9: Rent a Car

5.5.6 Adding a New Car

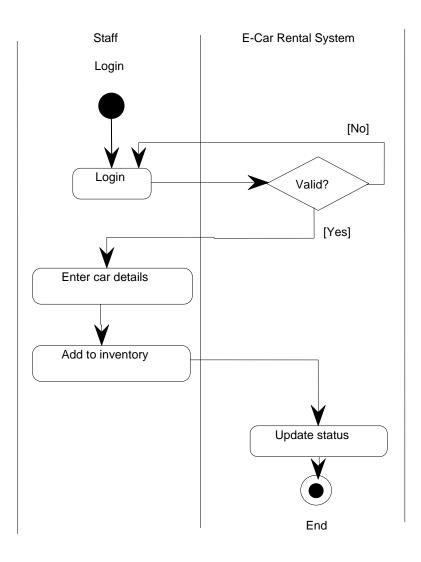


Figure 5.10: Add a New Car

5.5.7 View Report

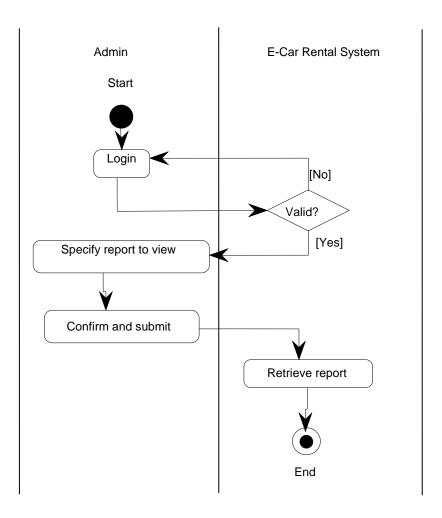


Figure 5.11: View report

SEQUENCE DIAGRAMS

6.1 Sequence Diagram

Sequence diagrams are used to demonstrate the behavior of objects in a use case by describing the objects and the messages they pass. It provides a graphical representation of object interactions over time. Sequence diagrams show an actor, the objects and components they interact with in the execution of a use case. One sequence diagram represents a single Use Case 'scenario' or events. Sequence diagrams show the flow of messages from one object to another, and as such correspond to the methods and events supported by an object.

6.1.1 Member Registration

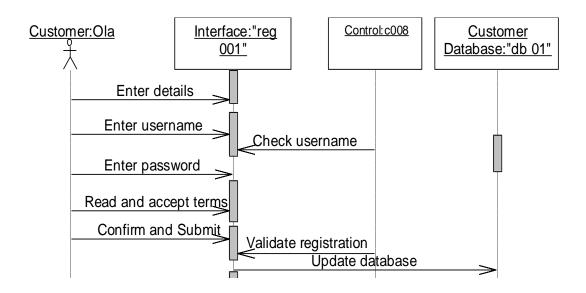


Figure 6.1: Register as member

6.1.2 Reservation of Car

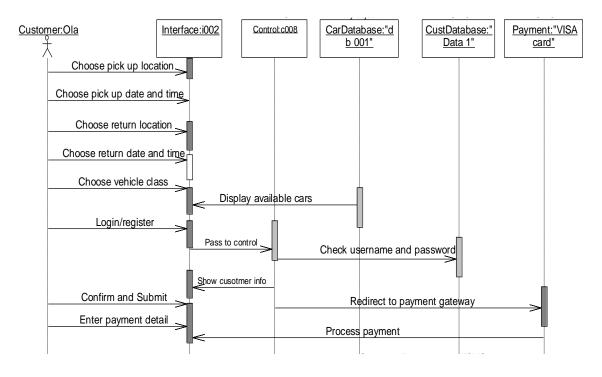


Figure 6.2: Make reservation

6.1.3 Customer Feedback

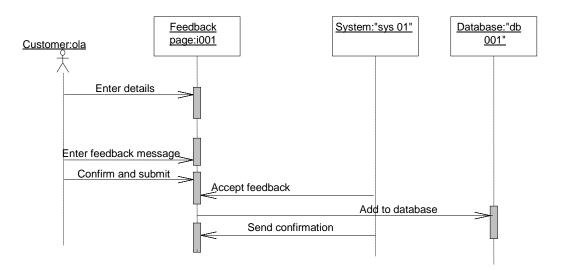


Figure 6.3: Give feedback

6.1.4 Adding a New Car

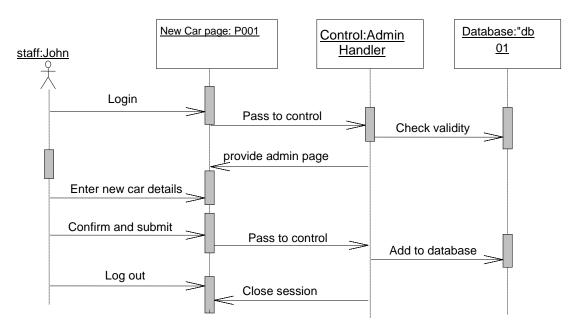


Figure 6.4: Add new car

6.1.5 Feedback Response

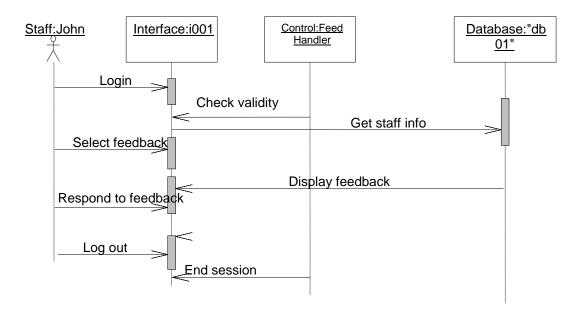


Figure 6.5: Respond to feedback

6.1.6 Return Car and Check Rental Details

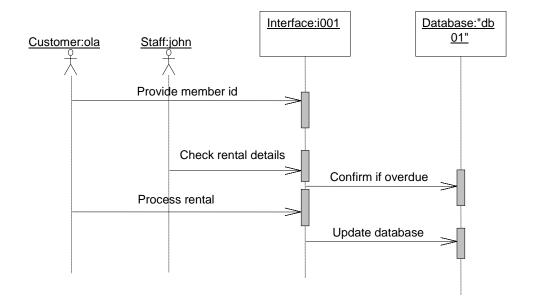


Figure 6.6: Return car

6.1.7 View Report

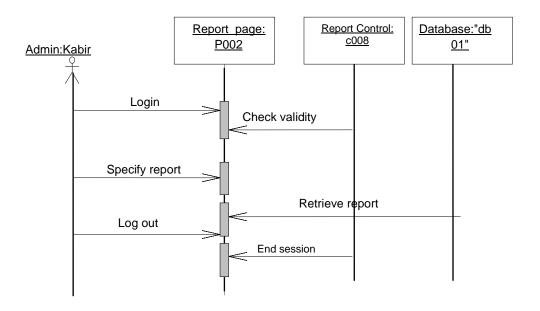


Figure 6.7: View report

6.2 Class Diagram

The class diagram is the main building block, a number of classes are identified and grouped together in a class diagram which helps to determine the statically relations between those objects.

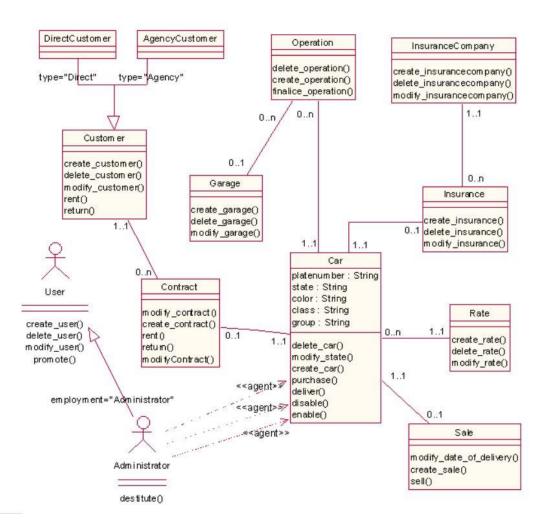


Figure 6.2.1 Class Diagram of Online Car Rental System

INTRODUCTION OF TECHNOLOGIES USED IN PROJECT

7.1 About PHP

PHP: Hypertext Pre-processor is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document.

As a general-purpose programming language, PHP code is processed by an interpreter application in command-line mode performing desired operating system operations and producing program output on its standard output channel. It may also function as a graphical application. PHP is available as a processor for most modern web servers and as standalone interpreter on most operating systems and computing platforms.

PHP was originally created by Rasmus Lerdorf in 1995 and has been in continuous development ever since. The main implementation of PHP is now produced by the PHP Group and serves as the *de facto* standard for PHP as there is no formal specification. PHP is free software released under the PHP License.

PHP is a general-purpose scripting language that is especially suited to server-side web development where PHP generally runs on a web server. Any PHP code in a requested file is executed by the PHP runtime, usually to create dynamic web page content. It can also be used for command-line scripting and client-side GUI applications. PHP can be deployed on most web servers, many operating systems and platforms, and can be used with many relational database management systems. It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.

Originally designed to create dynamic web pages, PHP now focuses mainly on server-side scripting, and it is similar to other server-side scripting languages that provide dynamic content from a web server to a client, such as Microsoft's Active Server Pages, Sun Microsystems' Java Server Pages, and mod_perl. PHP has also attracted the development of many frameworks that provide building blocks and a design structure to promote rapid application development (RAD). Some of these include CakePHP, Symfony, CodeIgniter and Zend Framework, offering features similar to other web application frameworks.

7.2 PHP Syntax:

HTML and PHP code is written on the same page, and to distinguish PHP code from HTML, the PHP code is enclosed within <? php ?> Tags.

```
For example:
<html>
<head><title>php basics</title></head>
<body>
<h2>HELLO</h1>
</php

echo "hello";

?>
</body>
```

In the above example PHP code is embedded within HTML. In this way PHP and HTML coding is combined on the same page.

Since PHP is a server side scripting language, the PHP coding cannot be seen by the end user through view source option, due to this feature PHP is very secure.

PHP is a parsed language; therefore PHP environment is necessary at the server for running PHP scripts.

7.3 Working of PHP:

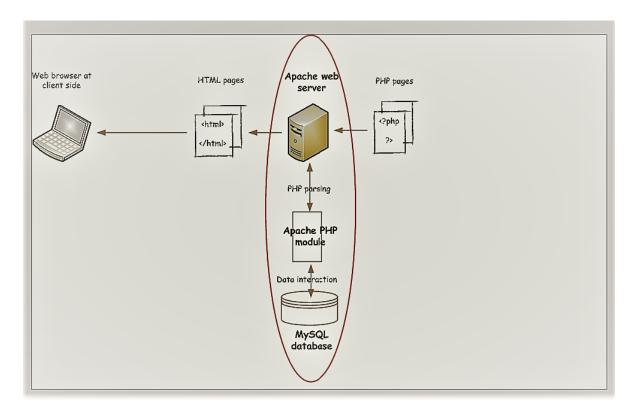


Figure 7.1 Working of PHP

When a client requests web page containing PHP code from the server, then the requested PHP pages are parsed under PHP environment and interaction with database is made if required.

After server side processing, the resulting HTML pages are passed to client and displayed on the browser.

In this way the working of php is complete.

7.4 Connecting PHP Application to MySQL Database

}

7.5 Introduction to MySQL:

MySQL is a relational database management system (RDBMS) that runs as a server providing multi-user access to a number of databases. MySQL is officially pronounced ("My S-Q-L"), but is often pronounced ("My Sequel"). It is named for original developer Michael Widenius's daughter My.

The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL is owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Sun Microsystems, a subsidiary of Oracle Corporation.

MySQL code uses C and C++. The SQL parser uses yacc and a home-brewed lexer, sql_lex.cc.

MySQL works on many different system platforms, including AIX, BSDi, FreeBSD, HP-UX, i5/OS, Linux, Mac OS X, NetBSD, Novell NetWare, OpenBSD, OpenSolaris, eComStation, OS/2 Warp, QNX, IRIX, Solaris, Symbian, SunOS, SCO OpenServer, SCO UnixWare, Sanos, Tru64 and Microsoft Windows. A port of MySQL to OpenVMS also exists.

All major programming languages with language-specific APIs include Libraries for accessing MySQL database. In addition, an ODBC interface called MyODBC allows additional programming languages that support the ODBC interface to communicate with a MySQL database, such as ASP or ColdFusion. The HTSQL - URL based query method also ships with MySQL adapter allowing direct interaction with MySQL database from any web client via structured URLs. The MySQL server and official libraries are mostly implemented in ANSI C/ANSI C++.

7.6 Introduction to APACHE SERVER:

In this project apache server is used to parse and execute PHP pages, before deploying websites on the server, the website should be tested at the developer side to get a feel of how the website will work on actual server.

Therefore apache server is like a local server on the developer side, apache server should be informed about the environment on which it should work.

In our project apache server is configured to work with PHP, in this way all the PHP pages are parsed and executed by the server.

When apache is installed on the system, then its services is controlled by apache service monitor.

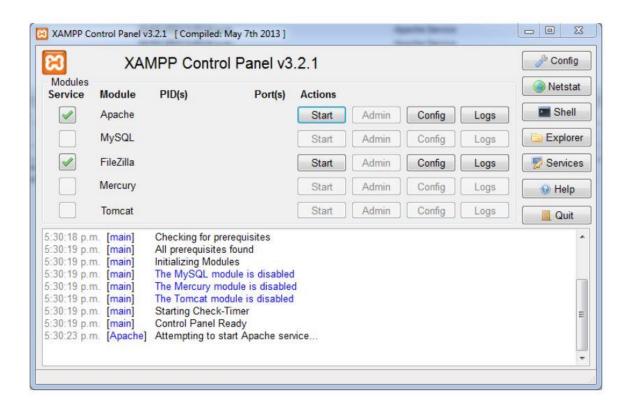


Figure 7.2 APACHE Service Monitor

CHAPTER-8

Coding

8.1 Code For book_car.php

```
<!DOCTYPE html>
<html lang="en">
<head>
       <title>Car Rental</title>
       <meta charset="utf-8">
       <meta name="author" content="pixelhint.com">
       <meta name="description" content="La casa free real state fully responsive html5/css3</pre>
home page website template"/>
       <meta name="viewport" content="width=device-width, initial-scale=1.0, minimum-
scale=1.0" />
       k rel="stylesheet" type="text/css" href="css/reset.css">
       <link rel="stylesheet" type="text/css" href="css/responsive.css">
       <script type="text/javascript" src="js/jquery.js"></script>
       <script type="text/javascript" src="js/main.js"></script>
</head>
<body>
<section class="">
```

```
<?php
                       include 'header.php';
               ?>
                       <section class="caption">
                               <h2 class="caption" style="text-align: center">Find You Dream
Cars For Hire</h2>
                               <h3 class="properties" style="text-align: center">Range Rovers -
Mercedes Benz - Landcruisers</h3>
                       </section>
       </section><!-- end hero section -->
       <section class="listings">
               <div class="wrapper">
                       ul class="properties_list">
                       <?php
                                               include 'includes/config.php';
                                               $sel = "SELECT * FROM cars WHERE car_id =
'$_GET[id]'";
                                               $rs = $conn->query($sel);
                                               $rws = $rs->fetch_assoc();
                       ?>
```

```
<a href="book_car.php?id=<?php echo $rws['car_id']
?>">
                                             <img class="thumb" src="cars/<?php echo
$rws['image'];?>" width="300" height="200">
                                      </a>
                                      <span class="price"><?php echo</pre>
'Kshs.'.$rws['hire_cost'];?></span>
                                      <div class="property_details">
                                             <h1>
                                                     <a href="book_car.php?id=<?php echo
$rws['car_id'] ?>"><?php echo 'Car Make>'.$rws['car_type'];?></a>
                                             </h1>
                                             <h2>Car Name/Model: <span
class="property_size"><?php echo $rws['car_name'];?></span></h2>
                                      </div>
                              <h3>Proceed to Hire <?php echo $rws['car_name'];?>. </h3>
                              <?php
                                      if(!$_SESSION['email'] && (!$_SESSION['pass'])){
                              ?>
```

<form method="post">

		Full Name:
required>		, , , , , , , , , , , , , , , , , , ,
		Phone Number:
		<input <="" name="phone" th="" type="text"/>
required>		
		Email Address:
		<input <="" name="email" th="" type="email"/>
required>		
		ID Number:
required>		<input <="" name="id_no" th="" type="text"/>
	-017	Gender:
		\tu>
	41	

```
<select name="gender">
                                                       <option> Select Gender
</option>
                                                       <option> Male
</option>
                                                       <option> Female
</option>
                                                 </select>
                                           Location:
                                           <input type="text"
name="location" required>
                                     <td colspan="2" style="text-
align:right"><input type="submit" name="save" value="Submit Details">
                                     </form>
                        <?php
                              } else
```

```
{
                                                       ?>
                                                              <a href="pay.php">Click to
Book</a>
                                                       <?php
                                               }
                               ?>
                               <?php
                                               if(isset($_POST['save'])){
                                                      include 'includes/config.php';
                                                       $fname = $_POST['fname'];
                                                       $id_no = $_POST['id_no'];
                                                       $gender = $_POST['gender'];
                                                       $email = $_POST['email'];
                                                       $phone = $_POST['phone'];
                                                       $location = $_POST['location'];
                                                       $qry = "INSERT INTO client
(fname,id_no,gender,email,phone,location,car_id,status)
       VALUES('$fname','$id_no','$gender','$email','$phone','$location','$_GET[id]','Pending')";
                                                       $result = $conn->query($qry);
                                                       if($result == TRUE){
```

```
echo "<script type =
\"text/javascript\">
       alert(\"Successfully Registered. Proceed to pay\");
       window.location = (\"pay.php\")
       </script>";
                                                       } else{
                                                               echo "<script type =
\"text/javascript\">
        alert(\"Registration Failed. Try Again\");
       window.location = (\"book_car.php\")
       </script>";
                                                       }
                                               }
                                         ?>
                        </div>
        </section>
                       <!-- end listing section -->
```

```
<footer>
     <div class="wrapper footer">
          class="links">
                     OUR COMPANY
                          <a href="#">About Us</a>
                          <a href="#">Terms</a>
                          <a href="#">Policy</a>
                          <a href="#">Contact</a>
                     class="links">
                     OTHERS
                          <a href="#">...</a>
                          <a href="#">...</a>
                          <a href="#">...</a>
                          <a href="#">...</a>
```

```
class="links">
     OUR CAR TYPES
           <a href="#">Mercedes</a>
           <a href="#">Range Rover</a>
           <a href="#">Landcruisers</a>
           <a href="#">Others.</a>
     <?php include_once "includes/footer.php" ?>
```

8.2 Code For add_car.php

```
<?php
       include '../includes/config.php';
?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<a href="http://www.w3.org/1999/xhtml">
<head>
       <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
       <title>Admin Home</title>
       <link rel="stylesheet" href="css/style.css" type="text/css" media="all" />
</head>
<body>
<div id="header">
       <div class="shell">
               <?php
                      include 'menu.php';
               ?>
               </div>
       </div>
</div>
```

```
<div id="container">
       <div class="shell">
               <div class="small-nav">
                      <a href="index.php">Dashboard</a>
                      <span>&gt;</span>
                      Add New Vehicles
               </div>
               <br />
               <div id="main">
                      <div class="cl">&nbsp;</div>
                      <div id="content">
                              <div class="box">
                                      <div class="box-head">
                                             <h2>Add New Vehicles</h2>
                                      </div>
```

<form action="" enctype="multipart/form-data" method="post"></form>					
	<div class="form"></div>				
		max			
100 symbols					
		<label>Vehicle Name</label>			
(Required Field)					
class="field size1" name="car_name" re	equired />	<input <="" td="" type="text"/>			
class mela sizer manie car_name re					
20 symbols		max			
		<label>Vehicle Make</label>			
(Required Field)		Nabel/Verificie Make			
		<input <="" td="" type="text"/>			
class="field size1" name="car_type" req	quired />				
		max			
20 symbols					
		<label>Vehicle Hire</label>			
Price (Required Field) <td>abel></td> <td></td>	abel>				
	4 9				

	<input <="" th="" type="text"/>
	<span< td=""></span<>
	clahal>Vahicla Imaga
	<label>Vehicle Image</label>
	<input <="" td="" type="file"/>
	In
	<label>Vehicle</label>
	Number Vernote
	<input <="" td="" type="text"/>
s="buttons">	

```
<input type="button" class="button"
value="preview" />
                                                      <input type="submit" class="button"
value="submit" name="send" />
                                              </div>
                                       </form>
                                       <?php
                                                      if(isset($_POST['send'])){
                                                              $target_path = "../cars/";
                                                              $target_path = $target_path .
basename ($_FILES['image']['name']);
       if(move_uploaded_file($_FILES['image']['tmp_name'], $target_path)){
                                                              $image =
basename($_FILES['image']['name']);
                                                              $car_name =
$_POST['car_name'];
                                                              $car_type = $_POST['car_type'];
                                                              $hire_cost =
$_POST['hire_cost'];
                                                              $capacity = $_POST['capacity'];
```

```
$qr = "INSERT INTO cars (image,
car_name,car_type,hire_cost,capacity,status)
        VALUES ('$image','$car_name','$car_type','$hire_cost','$capacity','Available')";
                                                                $res = $conn->query($qr);
                                                                if($res === TRUE){
                                                                        echo "<script type =
\"text/javascript\">
        alert(\"Vehicle Succesfully Added\");
        window.location = (\"add_vehicles.php\")
        </script>";
                                                                        }
                                                               }
                                                               else 'Failed';
                                                       }
                                                ?>
                                </div>
                        </div>
```

```
<div id="sidebar">
                            <div class="box">
                                    <div class="box-head">
                                           <h2>Management</h2>
                                    </div>
                                    <div class="box-content">
                                          <a href="add_vehicles.php" class="add-
button"><span>View Our Vehicles</span></a>
                                           <div class="cl">&nbsp;</div>
       <input type="checkbox" class="checkbox" /><label>select
all</label>
                                           <a href="#">Delete Selected</a>
                                           <!-- Sort -->
                                           <div class="sort">
                                                  <label>Sort by</label>
                                                  <select class="field">
                                                         <option value="">Car
Type</option>
```

```
</select>
                                                       <select class="field">
                                                              <option value="">Car
Name</option>
                                                      </select>
                                                       <select class="field">
                                                              <option value="">Hire
Price</option>
                                                      </select>
                                               </div>
                                       </div>
                               </div>
                       </div>
                                               <div class="cl">&nbsp;</div>
               </div>
       </div>
</div>
<div id="footer">
       <div class="shell">
               <span class="left">&copy; <?php echo date("Y");?> - projectworlds</span>
```

8.3 Code For login.php

```
<link rel="stylesheet" type="text/css" href="css/responsive.css">
       <script type="text/javascript" src="js/jquery.js"></script>
       <script type="text/javascript" src="js/main.js"></script>
</head>
<body>
<section class="">
               <?php
                       include 'header.php';
               ?>
                       <section class="caption">
                               <h2 class="caption" style="text-align: center">Find You Dream
Cars For Hire</h2>
                               <h3 class="properties" style="text-align: center">Range Rovers -
Mercedes Benz - Landcruisers</h3>
                       </section>
       </section><!-- end hero section -->
       <section class="search">
```

```
<div class="wrapper">
            <div id="fom">
                  <form method="post">
                 <h3 style="text-align:center; color: #000099; font-weight:bold; text-
decoration:underline">Admin Login Area</h3>
                        Email Address:
                                    <input type="text" name="uname"
placeholder="Enter Username" required>
                              Password:
                                    <input type="password" name="pass"
placeholder="Enter Password" required>
                              <td colspan="2" style="text-
align:center"><input type="submit" name="login" value="Login Here">
                              </form>
                  <?php
```

```
if(isset($_POST['login'])){
                                       include 'includes/config.php';
                                       $uname = $_POST['uname'];
                                       $pass = $_POST['pass'];
                                       $query = "SELECT * FROM admin WHERE uname =
'$uname' AND pass = '$pass'";
                                       $rs = $conn->query($query);
                                       $num = $rs->num_rows;
                                       $rows = $rs->fetch_assoc();
                                       if(\text{$num > 0})
                                               session_start();
                                               $_SESSION['uname'] = $rows['uname'];
                                               $_SESSION['pass'] = $rows['pass'];
                                               echo "<script type = \"text/javascript\">
                                                                      alert(\"Login
Successful.....\");
                                                                      window.location =
(\"admin/index.php\")
                                                                      </script>";
                                       } else{
                                               echo "<script type = \"text/javascript\">
```

```
alert(\"Login Failed. Try
Again.....\");
                                                            window.location =
(\"login.php\")
                                                            </script>";
                                 }
                          }
                    ?>
                    </div>
                    <a href="#" class="advanced_search_icon"
id="advanced_search_btn"></a>
      </div>
      </section><!-- end search section -->
      <footer>
             <div class="wrapper footer">
                    class="links">
                                 OUR COMPANY
                                        <a href="#">About Us</a>
                                        <a href="#">Terms</a>
                                        <a href="#">Policy</a>
                                        <a href="#">Contact</a>
```

```
class="links">
          OTHERS
               <a href="#">...</a>
               <a href="#">...</a>
               <a href="#">...</a>
               <a href="#">...</a>
          class="links">
          OUR CAR TYPES
               <a href="#">Mercedes</a>
               <a href="#">Range Rover</a>
               <a href="#">Landcruisers</a>
               <a href="#">Others.</a>
<?php include_once "includes/footer.php" ?>
```

8.4 client_request.php

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
       <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
       <title>Admin Home</title>
       <link rel="stylesheet" href="css/style.css" type="text/css" media="all" />
       <script type="text/javascript">
               function sureToApprove(id){
                       if(confirm("Are you sure you want to Approve this request?")){
                              window.location.href ='approve.php?id='+id;
                       }
               }
       </script>
</head>
<body>
<!-- Header -->
<div id="header">
       <div class="shell">
```

```
<?php
                      include 'menu.php';
               ?>
       </div>
</div>
<div id="container">
       <div class="shell">
               <div class="small-nav">
                      <a href="index.php">Dashboard</a>
                       <span>&gt;</span>
                      Client Requests
               </div>
               <br />
               <div id="main">
                       <div class="cl">&nbsp;</div>
                       <div id="content">
```

```
<div class="box">
                                  <!-- Box Head -->
                                  <div class="box-head">
                                        <h2 class="left">Client Requests</h2>
                                        <div class="right">
                                               <label>search requests</label>
                                               <input type="text" class="field small-
field"/>
                                               <input type="submit" class="button"
value="search" />
                                        </div>
                                  </div>
                                  <div class="table">
                                        <table width="100%" border="0"
cellspacing="0" cellpadding="0">
                                               <input
type="checkbox" class="checkbox" />
                                                      Client Name
                                                      Client Phone
                                                      Car Booked
                                                      Mpesa ID
```

```
Status
                                                       <th width="110"
class="ac">Content Control
                                                <?php
                                                       include '../includes/config.php';
                                                       $select = "SELECT
client.client_id,client.fname,client.phone,cars.car_name,cars.hire_cost,client.status
                                                                     FROM client
JOIN cars ON client.car_id=cars.car_id";
                                                       $result = $conn-
>query($select);
                                                       while($row = $result-
>fetch_assoc()){
                                                ?>
                                                <tnput type="checkbox"
class="checkbox" />
                                                       <h3><a href="#"><?php
echo $row['fname'] ?></a></h3>
                                                       <h3><a href="#"><?php
echo $row['phone'] ?></a></h3>
                                                       <?php echo
$row['car_name'] ?>
```

```
<a href="#"><?php echo
$row['hire_cost'] ?></a>
                                                        <a href="#"><?php echo
$row['status'] ?></a>
                                                        <a
href="javascript:sureToApprove(<?php echo $row['client_id'];?>)" class="ico
del">Approve</a><a href="#" class="ico edit">Delete</a>
                                                 <?php
                                                        }
                                                 ?>
                                          <!-- Pagging -->
                                          <div class="pagging">
                                                 <div class="left">Showing 1-12 of
44</div>
                                                 <div class="right">
                                                        <a href="#">Previous</a>
                                                        <a href="#">1</a>
                                                        <a href="#">2</a>
                                                        <a href="#">3</a>
```

```
<a href="#">4</a>
                                                              <a href="#">245</a>
                                                              <span>...</span>
                                                              <a href="#">Next</a>
                                                              <a href="#">View all</a>
                                                      </div>
                                              </div>
                                              <!-- End Pagging -->
                                       </div>
                                       <h2><input type="submit" onclick="window.print()"
value="Print Here" /></h2>
                               </div>
                               <!-- End Box -->
                       </div>
                       <!-- End Content -->
                       <div class="cl">&nbsp;</div>
               </div>
```

```
<!-- Main -->
       </div>
</div>
<!-- End Container -->
<!-- Footer -->
<div id="footer">
       <div class="shell">
               <span class="left">&copy; <?php echo date("Y");?> - projectworlds</span>
               <span class="right">
                       Design by <a href="http://projectworlds.in">projectworlds</a>
               </span>
       </div>
</div>
<!-- End Footer -->
</body>
</html>
```

8.5 Code For signup.php

```
<!DOCTYPE html>
<html lang="en">
<head>
       <title>Car Rental</title>
       <meta charset="utf-8">
       <meta name="author" content="pixelhint.com">
       <meta name="description" content="La casa free real state fully responsive html5/css3</pre>
home page website template"/>
       <meta name="viewport" content="width=device-width, initial-scale=1.0, minimum-</pre>
scale=1.0" />
       <link rel="stylesheet" type="text/css" href="css/reset.css">
       <link rel="stylesheet" type="text/css" href="css/responsive.css">
       <script type="text/javascript" src="js/jquery.js"></script>
       <script type="text/javascript" src="js/main.js"></script>
</head>
<body>
<section class="">
               <?php
                       include 'header.php';
```

```
<section class="caption">
                              <h2 class="caption" style="text-align: center">Find You Dream
Cars For Hire</h2>
                              <h3 class="properties" style="text-align: center">Range Rovers -
Mercedes Benz - Landcruisers</h3>
                       </section>
       </section><!-- end hero section -->
       <section class="search">
               <div class="wrapper">
                       <form action="#" method="post">
                              <input type="text" id="search" name="search"
placeholder="What are you looking for?" autocomplete="off"/>
                              <input type="submit" id="submit_search"</pre>
name="submit_search"/>
                       </form>
                       <a href="#" class="advanced_search_icon"
id="advanced_search_btn"></a>
               </div>
```

```
<div class="advanced_search">
                       <div class="wrapper">
                              <span class="arrow"></span>
                              <form action="#" method="post">
                                      <div class="search_fields">
                                              <input type="text" class="float"
id="check_in_date" name="check_in_date" placeholder="Check In Date" autocomplete="off">
                                              <hr class="field_sep float"/>
                                             <input type="text" class="float"
id="check_out_date" name="check_out_date" placeholder="Check Out Date"
autocomplete="off">
                                      </div>
                                      <div class="search_fields">
                                              <input type="text" class="float" id="min_price"
name="min_price" placeholder="Min. Price" autocomplete="off">
                                              <hr class="field_sep float"/>
                                             <input type="text" class="float" id="max_price"
name="max_price" placeholder="Max. price" autocomplete="off">
                                      </div>
```

```
<input type="text" id="keywords" name="keywords"</pre>
placeholder="Keywords" autocomplete="off">
                                  <input type="submit" id="submit_search"</pre>
name="submit_search"/>
                           </form>
                    </div>
             </div><!-- end advanced search section -->
      </section><!-- end search section -->
      <section class="listings">
             <div class="wrapper">
                           <h3>Signup Here</h3>
                           <form method="post">
                                  Full Name:
                                               <input type="text" name="fname"
required>
                                         Phone Number:
                                       71
```

required>		<input <="" name="phone" td="" type="text"/>
		Email Address:
		<input <="" name="email" td="" type="email"/>
required>		
		ID Number:
		<input <="" name="id_no" td="" type="text"/>
required>		
		Gender:
		>
		<select name="gender"></select>
		<option> Select Gender</option>
		<option> Male</option>
		<option> Female</option>
	72	

```
Location:
                                               td><input type="text"
name="location" required>
                                        <td colspan="2" style="text-
align:right"><input type="submit" name="save" value="Submit Details">
                                        </form>
                          <?php
                                        if(isset($_POST['save'])){
                                               include 'includes/config.php';
                                               $fname = $_POST['fname'];
                                              $id_no = $_POST['id_no'];
                                               $gender = $_POST['gender'];
                                               $email = $_POST['email'];
                                               $phone = $_POST['phone'];
                                               $location = $_POST['location'];
```

```
$qry = "INSERT INTO client
(fname,id_no,gender,email,phone,location,status)
        VALUES('$fname','$id_no','$gender','$email','$phone','$location','Available')";
                                                        $result = $conn->query($qry);
                                                        if($result == TRUE){
                                                                echo "<script type =
\"text/javascript\">
        alert(\"Successfully Registered.\");
        window.location = (\"account.php\")
        </script>";
                                                        } else{
                                                                echo "<script type =
\"text/javascript\">
        alert(\"Registration Failed. Try Again\");
        window.location = (\"signup.php\")
        </script>";
                                                        }
```

```
}
                       ?>
           </div>
</section>
           <!-- end listing section -->
<footer>
     <div class="wrapper footer">
           class="links">
                      OUR COMPANY
                            <a href="#">About Us</a>
                            <a href="#">Terms</a>
                            <a href="#">Policy</a>
                            <a href="#">Contact</a>
                      class="links">
                      OTHERS
                           <a href="#">...</a>
                           75
```

```
<a href="#">...</a>
           <a href="#">...</a>
          <a href="#">...</a>
     class="links">
     OUR CAR TYPES
           <a href="#">Mercedes</a>
           <a href="#">Range Rover</a>
           <a href="#">Landcruisers</a>
           <a href="#">Others.</a>
     <?php include_once "includes/footer.php" ?>
```

8.6 Code For Connection.php

```
<?php

$host = "localhost";

$user = "root";

$pass = "";

$db = "cars";

$conn = new mysqli($host, $user, $pass, $db);

if($conn->connect_error){

    echo "Failed:" . $conn->connect_error;
}

?>
```

8.7 Code For logout.php

```
<?php

session_start();

session_destroy();

header("location: ../index.php");
?>
```

Testing

Testing of website perform coding like validation and verification testing. Different testing tools are used for testing like white box testing and black box testing.

9.1 White Box Testing :-

White box testing is a security testing method that can be used to validate whether code implementation follows intended design, to validate implemented security functionality, and to uncover exploitable vulnerabilities. This section introduces white box testing for security, how to perform white box testing, and tools and techniques relevant to white box testing. It brings together concepts from two separate domains: traditional white box testing techniques and security testing. It assumes the reader to be familiar with general concepts of software security. Refer to other content areas on this portal to learn different aspects of software security. The section is organized into separate sections dealing with what white box testing is, how to perform white box testing, what results to expect, the business case to justify white box testing, skills and training required to perform white box testing, and a brief case study. The purpose of any security testing method is to ensure the robustness of a system in the face of malicious attacks or regular software failures. White box testing is performed based on the knowledge of how the system is implemented. White box testing includes analyzing data flow, control flow, information flow, coding practices, and exception and error handling within the system, to test the intended and unintended software behavior. White box testing can be performed to validate whether code implementation follows intended design, to validate implemented security functionality, and to uncover exploitable vulnerabilities.

9.2 Black Box Testing:-

Black box testing takes an external perspective of the test object to derive test cases. These tests can be functional or non-functional, though usually functional. The test designer selects valid and invalid input and determines the correct output. There is no knowledge of the test object's internal structure. This method of test design is applicable to all levels of software testing: unit, integration, functional testing, system and acceptance. The higher the level, and hence the bigger and more complex the box, the more one is forced to use black box testing to simplify. While this method can uncover unimplemented parts of the specification, one cannot be sure that all existent paths are tested. The base of the Black box testing strategy lies in the selection of appropriate data as per functionality and testing it against the functional specifications in order to check for normal and abnormal behavior of the system. In order to implement Black Box Testing Strategy, the tester is needed to be thorough with the requirement specifications of the system and as a user, should know, how the system should behave in response to the particular action.

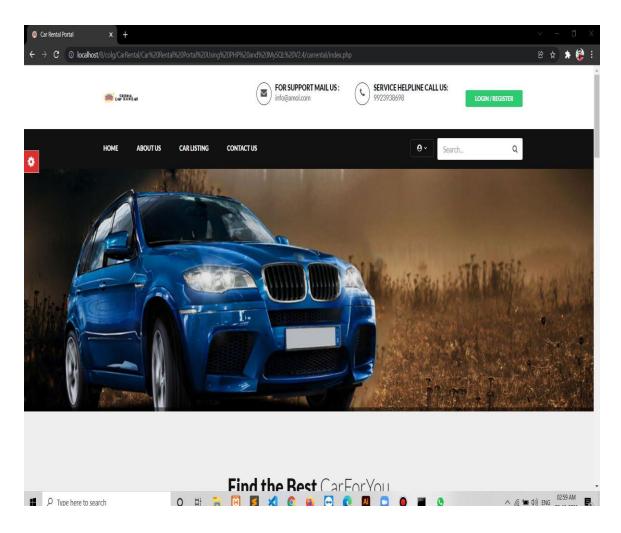
These testing types are again divided in **two** groups:

a) Testing in which user plays a role of tester. b) User is not required.

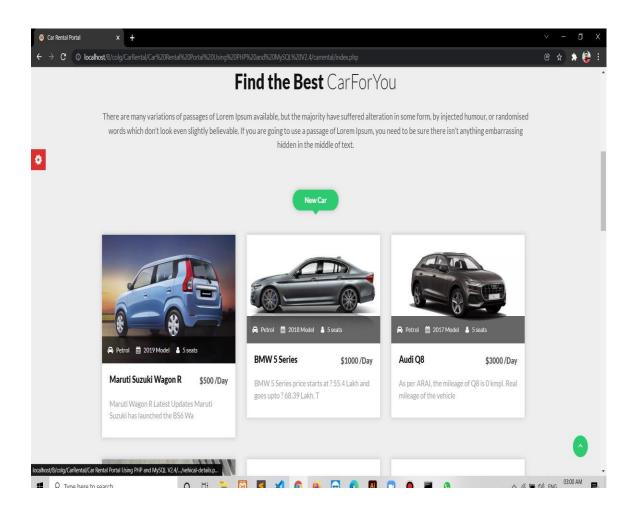
9.3 Performance Testing:-

System performance is generally assessed in terms of response time and throughput rates under differing processing and configuration conditions. To attack the performance problems, there are several questions should be asked like how much application logic should be remotely executed? How much updating should be done to the database server over the network from the client workstation? How much data should be sent to each in each transaction? The best strategy for improving clientserver performance is a three-step process. First, execute controlled performance tests that collect the data about volume, stress, and loading tests. Second, data. Third, examine and tune the database queries and, if necessary, provide temporary data storage on the client while the application is executing.

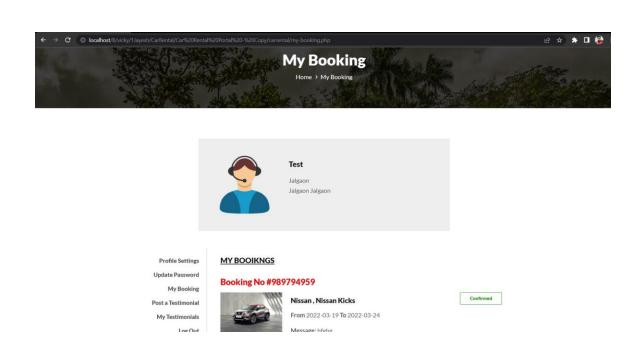
SNAPSHOTS



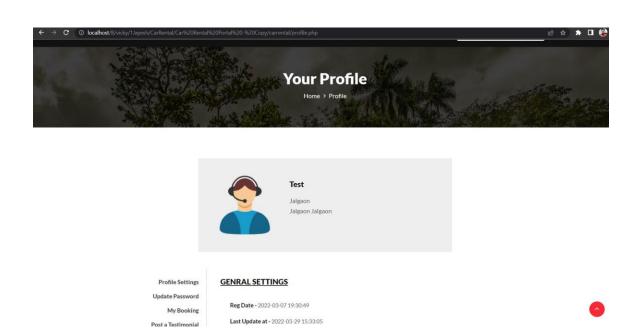
SNAPSHOT 1: HOMEPAGE



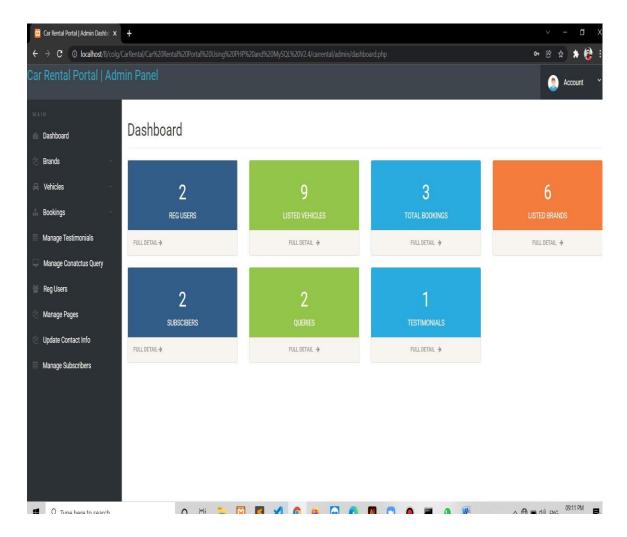
SNAPSHOT 2: CAR ABOUT



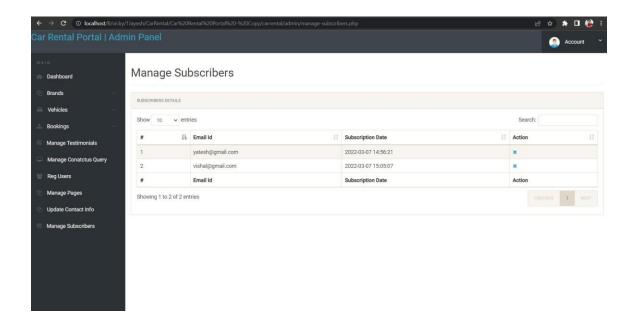
SNAPSHOT 3: CAR BOOKING DETAILS



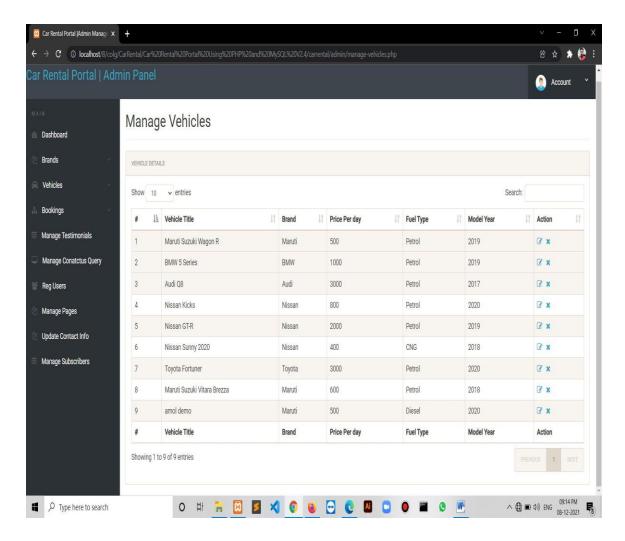
SNAPSHOT 4: USER PROFILE PAGE



SNAPSHOT 5: ADMIN PANEL DETAILS



SNAPSHOT 6:MANAGE SUBSCRIBERS PAGE.



SNAPSHOT 7: VEHICLES MANAGE

TIME FRAME REQUIRED FOR VARIOUS STAGES OF PROJECT IMPLEMENTATION

Sr. No.	Phases	Time Duration
1	Software Requirement Specification	1 weeks
2	System Design	1 weeks
3	Coding	4 weeks
4	Implementation	2 weeks
5	Testing	3 weeks

CONCLUSION

Car rental business has emerged with a new goodies compared to the past experience where every activity concerning car rental business is limited to a physical location only. Even though the physical location has not been totally eradicated; the nature of functions and how these functions are achieved has been reshaped by the power of internet. Nowadays, customers can reserve cars online, rent car online, and have the car brought to their door step once the customer is a registered member or go to the office to pick the car.

The web based car rental system has offered an advantage to both customers as well as Car Rental Company to efficiently and effectively manage the business and satisfies customers' need at the click of a button.

REFERENCES

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