

CAR RENTAL WEB PAGE

A PROJECT REPORT SUBMITTED TO
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AWARD OF THE DEGREE OF
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DEPARTMENT OF COMPUTER APPLICATIONS

COLLEGE OF SCIENCE AND HUMANITIES
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BONAFIDE CERTIFICATE

This is to certify that the project report titled “CAR RENTAL WEWPAGE” is a bonafide work carried out by SURYA S (RA2232241010110), ARAVINTHAN M (RA2232241010074), LOGESH H (RA2232241010107), under my supervision for the award of the Degree of Master of Computer Applications. To my knowledge the work reported herein is the original work done by these students.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

Declaration of Association of Research Project with SDG Goals

This is to certify that the research project entitled **CAR RENTAL WEBPAGE** carried out by **LOGESH H(RA2232241010107), ARAVINTHAN M (RA2232241010074), SURYA S(RA2232241010110)** under the supervision of Dr M. PANDIYAN, ASSISTANT PROFESSOR of COMPUTER APPLICATIONS in partial fulfilment of the requirement for the award of Post-Graduation program has been significantly or potentially associated with SDG Goal No **9** titled **INDUSTRY, INNOVATION AND INFRASTRUCTURE.**

This study has clearly shown the extent to which its goals and objectives have been met in terms of filling the research gaps, identifying needs, resolving problems, and developing innovative solutions locally for achieving the above-mentioned SDG on a National and/or on an international level.

Signature of the Student

Guide and Supervisor

Head of the Department

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We take this as a right opportunity to say THANKS to my parents who are there to stand with me always with the words “YOU CAN”.

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**LOGESH H
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ABSTRACT

The Project is designed to aid the car rental company to enable renting of cars through on online system. It helps to search for available cars view profile and book the cars for the time period. This system saves time and labour availability. The User has to enter his details and check for the cars available for rent. The main advantage is that the user shall be able to choose a car depending on his budget.

When it comes to cab rental services, It is the most trusted and reliable name in the travel business. The most advanced travel agents offering cab rental and car hire in India, making full use of information technology to improve the level of our efficiency. However, this is only one aspect of services. And this project continually strives to offer the best of services - both in terms of man and machine, to our clients.

Moreover, this project has a fleet of cars ranging from luxury to budget cabs. While, it offers online cab hire service for corporate houses. And this project clam to offer the best of rates, which are tailor-made depending upon the facilities, availed and offer both intercity and intra-city cab facilities.

INTRODUCTION

We aim to become a pioneer in the vehicle rental industry by completely focusing on customers, our employees, growth, innovation and efficiency. All of these elements will drive us towards success and show us as one company that can perform and give value for money.

When it comes to car rental services, Car rental service is the most trusted and reliable name in the travel business. The most advanced travel agents offering car rental and car hire in India, making full use of information technology to improve the level of our efficiency. However, this is only one aspect of services. And this project continually strives to offer the best of services - both in terms of man and machine, to our clients. All cabs have proper permits and documentation so that the clients couldn't be hassled for the lack of documents. However, this project has strategic backup system for any eventuality. The cab service includes all categories of cars from luxury to budget.

SYSTEM ANALYSIS

EXISTING SYSTEM

- Car rental service will help users to book a car for some fee specified.
- Till now there was no clear web based UI to help the users to rent the vehicle.
- They had to manually rent the vehicle through their offices.
- It was a difficult task to manage rental vehicles.
- Keeping track of all the rental cars was a problem.

PROPOSED SYSTEM

- This tool will enable the user to rent a vehicle. The user shall login to the system and check for availability of cars.
- The user specifies a type of car and the journey date and time.
- The system shall check for the availability of the car and rent the car to the customer.
- The tool is designed using PHP. All the data regarding the rental cars are stored in MySQL database.
- The user has to enter his name, address, phone details and check for the cars available for rent.
- The UI is very simple and the connectivity to backend is robust.
- The main advantage is that the user shall be able to choose a car depending on his budget.

SYSTEM SPECIFICATION

HARDWARE SPECIFICATION

The minimum hardware requirement of this project is as follows:

Processor : i3 processor

Speed : 4GB of RAM

RAM : 4 GB or above

Monitor : 15 inch colour

Hard disk : 20 GB

Floppy drive : 1.44 MB

Key board : Standard 102 keys

Mouse : 3 buttons

SOFTWARE SPECIFICATION

This section lists the requirements that are needed to run the system efficiently. The operating system needed for the system to run effectively, the interface to run the application, the driver for running PHP based application, the integrated development environment to develop the application, and the third-party tool used for editing purposes are as follows:

Languages Used : HTML, CSS, Javascript, Bootstrap, PHP

Back End : MySQL

Web Server : WAMP, XAMPP

Operating System : Windows 10 **SOFTWARE**

DESCRIPTION

LANGUAGES USED

HTML



Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by

technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `` and `<input/>` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behaviour and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

CASCADING STYLE SHEET(CSS)



Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and

JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts.

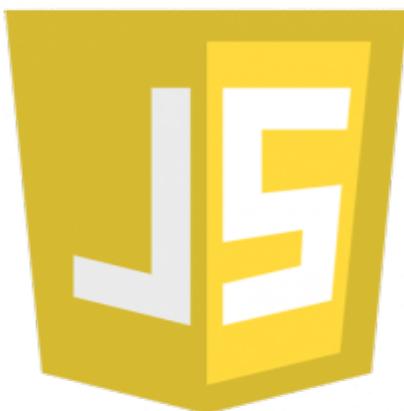
This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content. CSS information can be provided from various sources. These sources can be the web browser, the user and the author.

The information from the author can be further classified into inline, media type, importance, selector specificity, rule order, inheritance and property definition. CSS style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used; for

example, the screen version can be quite different from the printed version, so that authors can tailor the presentation appropriately for each medium.

The style sheet with the highest priority controls the content display. Declarations not set in the highest priority source are passed on to a source of lower priority, such as the user agent style. The process is called cascading. One of the goals of CSS is to allow users greater control over presentation. Someone who finds red italic headings difficult to read may apply a different style sheet. Depending on the browser and the web site, a user may choose from various style sheets provided by the designers, or may remove all added styles and view the site using the browser's default styling, or may override just the red italic heading style without altering other attributes.

JAVASCRIPT



JavaScript

JavaScript is a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web

applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype-based) programming styles. It has APIs for working with text, arrays, dates, regular expressions, and the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities. It relies upon the host environment in which it is embedded to provide these features.

Initially only implemented client-side in web browsers, JavaScript engines are now embedded in many other types of host software, including server-side in web servers and databases, and in non-web programs such as word processors and

PDF software, and in runtime environments that make JavaScript available for writing mobile and desktop applications, including desktop widgets. The terms Vanilla JavaScript and Vanilla JS refer to JavaScript not extended by any frameworks or additional libraries. Scripts written in Vanilla JS are plain JavaScript code. Google's Chrome extensions, Opera's extensions, Apple's Safari 5 extensions, Apple's Dashboard Widgets, Microsoft's Gadgets, Yahoo! Widgets, Google Desktop Gadgets, and Serene Klipfolio are implemented using JavaScript.

BOOTSTRAP



Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains HTML, CSS and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

As of April 2022, Bootstrap is the eleventh most starred project on GitHub, with over 156,000 stars.

Bootstrap, originally named Twitter Blueprint, was developed by Mark Otto and Jacob Thornton at Twitter as a framework to encourage consistency across internal tools. Before Bootstrap, various libraries were used for interface development, which led to inconsistencies and a high maintenance burden. According to Twitter developer Mark Otto :

A super small group of developers and I got together to design and build a new internal tool and saw an opportunity to do something more. Through that process, we saw ourselves build something much more substantial than another internal tool. Months later, we ended up with an early version of Bootstrap as a way to document and share common design patterns and assets within the company.

After a few months of development by a small group, many developers at Twitter began to contribute to the project as a part of Hack Week, a hackathon-style week for the Twitter development team. It was renamed from Twitter Blueprint to Bootstrap and released as an open-source project on August 19, 2011. It has continued to be maintained by Mark Otto, Jacob Thornton, a small group of core developers, and a large community of contributors.

Bootstrap is an HTML, CSS & JS Library that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of colour, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-coloured tables, page headings, more prominent pull quotes, and text with a highlight.

Bootstrap also comes with several JavaScript components in the form of jQuery plugins. They provide additional user interface elements such as dialog boxes, tooltips, and carousels. Each Bootstrap component consists of an HTML structure, CSS declarations, and in some cases accompanying JavaScript code. They also extend the functionality of some existing interface elements, including for example an auto-complete function for input fields.

The most prominent components of Bootstrap are its layout components, as they affect an entire web page. The basic layout component is called "Container", as every other element in the page is placed in it. Developers can choose between a fixed width container and a fluid-width container. While the latter always fills the

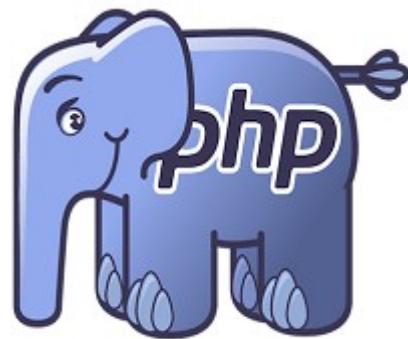
width of the web page, the former uses one of the five predefined fixed widths, depending on the size of the screen showing the page:

- Smaller than 576 pixels
- 576–768 pixels
- 768–992 pixels
- 992–1200 pixels
- Larger than 1200 pixels

Once a container is in place, other Bootstrap layout components implement a CSS Flexbox layout through defining rows and columns.

A precompiled version of Bootstrap is available in the form of one CSS file and three JavaScript files that can be readily added to any project. The raw form of Bootstrap, however, enables developers to implement further customization and size optimizations.

PHP



PHP is a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Preprocessor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing

the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension "PHP".

The term PHP is an acronym for PHP: Hypertext Preprocessor. PHP is a server-side scripting language designed specifically for web development. PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP with client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser. PHP: Hypertext Preprocessor (or simply PHP) is a general-purpose programming language originally designed for web development. It was originally created by Rasmus Lerdorf in 1994.

PHP development began in 1994 when Rasmus Lerdorf wrote several Common Gateway Interface (CGI) programs in C,^{[16][17]} which he used to maintain his personal homepage. He extended them to work with web forms and to communicate with databases, and called this implementation "Personal Home Page/Forms Interpreter" or PHP/FI.

PHP/FI could be used to build simple, dynamic web applications. To accelerate bug reporting and improve the code, Lerdorf initially announced the release of PHP/FI as "Personal Home Page Tools (PHP Tools) version 1.0" on the Usenet discussion group *comp.infosystems.www.authoring.cgi* on June 8, 1995. This release already had the basic functionality that PHP has today. This included Perl-like variables, form handling, and the ability to embed HTML. The syntax resembled that of Perl, but was simpler, more limited and less consistent.

PHP is a general-purpose scripting language that is especially suited to server-side web development, in which case 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 or dynamic images used on websites or elsewhere. It can also be used for command-line scripting and client-side graphical user

interface (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 (RDBMS). Most web hosting providers support PHP for use by their clients. 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,^[245] 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 ASP.NET, Sun Microsystems' JavaServer Pages, PHP has also attracted the development of many software frameworks that provide building blocks and a design structure to promote rapid application development (RAD). Some of these include PRADO, CakePHP, Symfony, CodeIgniter, Laravel, Yii

The LAMP architecture has become popular in the web industry as a way of deploying web applications. PHP is commonly used as the *P* in this bundle alongside Linux, Apache and MySQL, although the *P* may also refer to Python, Perl, or some mix of the three. Similar packages, WAMP and MAMP, are also available for Windows and macOS, with the first letter standing for the respective operating system. Although both PHP and Apache are provided as part of the macOS base install, users of these packages seek a simpler installation mechanism that can be more easily kept up to date.

For specific and more advanced usage scenarios, PHP offers a welldefined and documented way for writing custom extensions in C or C++. Besides extending the language itself in form of additional libraries, extensions are providing a way for improving execution speed where it is critical and there is room for improvements by using a true compiled language. PHP also offers well defined ways for embedding itself into other software projects. That

way PHP can be easily used as an internal scripting language for another project, also providing tight interfacing with the project's specific internal data structures.

PHP received mixed reviews due to lacking support for multithreading at the core language level, though using threads is made possible by the "pthreads" PECL extension.

A command line interface, php-cli, and two ActiveX Windows Script Host scripting engines for PHP have been produced.

PHP code may be executed with a command line interface (CLI), embedded into HTML code, or used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in a web server or as a Common Gateway Interface (CGI) executable.

The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control.

PHP is also suitable for more complicated tasks such as parsing and verifying data that the user has entered into an HTML form. PHP's advantages include the following:

- It's free via the GNU General Public License (GPL).
- It's fast due to the fact that it's embedded into the HTML code.
- It's designed to support databases including functionality designed to interact with specific databases. It negates the need for the user to need to know the technical details required to communicate with a database.

- It's quite easy to use in that it only contains elements of a programming language needed to interact with a database and to generate dynamic webpages.

Advantages of PHP

PHP can generate dynamic page content

- PHP can create, open, read, write, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can restrict users to access some pages on your website
- PHP can encrypt data
- PHP runs on different platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP has support for a wide range of databases
- PHP is free. Download it from the official PHP resource
- PHP is easy to learn and runs efficiently on the server side

It is also helpful to think of PHP in terms of what it can do for you. PHP will allow you to:

Common uses of PHP

- PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.
- PHP can handle forms, i.e. gather data from files, save data to a file, thru email you can send data, return data to the user.
- You add, delete, modify elements within your database thru PHP.
- Access cookies variables and set cookies.

- Using PHP, you can restrict users to access some pages of your website. It can encrypt data.

Characteristics of PHP

Five important characteristics make PHP's practical nature possible:

- Simplicity
- Efficiency
- Security

BACKEND

MySQL



MySQL is an open source relational database management system (RDBMS) based on Structured Query Language (SQL). It is one part of the very popular LAMP platform consisting of Linux, Apache, My SQL, and PHP. Currently My SQL is owned by Oracle. My SQL database is available on most important OS platforms. It runs on BSD Unix, Linux, Windows, or Mac OS.

Wikipedia and YouTube use My SQL. These sites manage millions of queries each day. My SQL comes in two versions: My SQL server system and My

SQL embedded system.

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of cofounder Michael Widenius daughter, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation).^[8] In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create MariaDB.

MySQL has stand-alone clients that allow users to interact directly with a MySQL database using SQL, but more often, MySQL is used with other programs to implement applications that need relational database capability. MySQL is a component of the LAMP web application software stack (and others), which is an acronym for Linux, Apache, MySQL, Perl/PHP/Python. MySQL is used by many database-driven web applications, including Drupal, Joomla, phpBB, and WordPress. MySQL is also used by many popular websites, including Facebook, Flickr, MediaWiki, Twitter, and YouTube.

MySQL is a fast easy to use RDMS. MySQL is easier to install and use than its commercial competitors and the fact that MySQL is open source is strongly in its favour. MySQL is available via the General Public License (GPU). MySQL consists of a MySQL server, several utility programs that assist the administration of the MySQL databases. MySQL's main advantages include the following:

- It is pre-packaged with most Linux distributions.
- It's quite easy to use: you can interact with a MySQL database using a few simple statements from the SQL language.
- It's very fast: MySQL's developers' main goal was speed; consequently the software was designed from the beginning with speed in mind.
- It's free via the GNU General Public License.
- MySQL is a database system used on the web
- MySQL is a database system that runs on a server
- MySQL is ideal for both small and large applications
- MySQL is very fast, reliable, and easy to use
- MySQL supports standard SQL
- MySQL compiles on a number of platforms
- MySQL is free to download and use
- MySQL is developed, distributed, and supported by Oracle Corporation.
- MySQL is named after co-founder Monty Widenius's

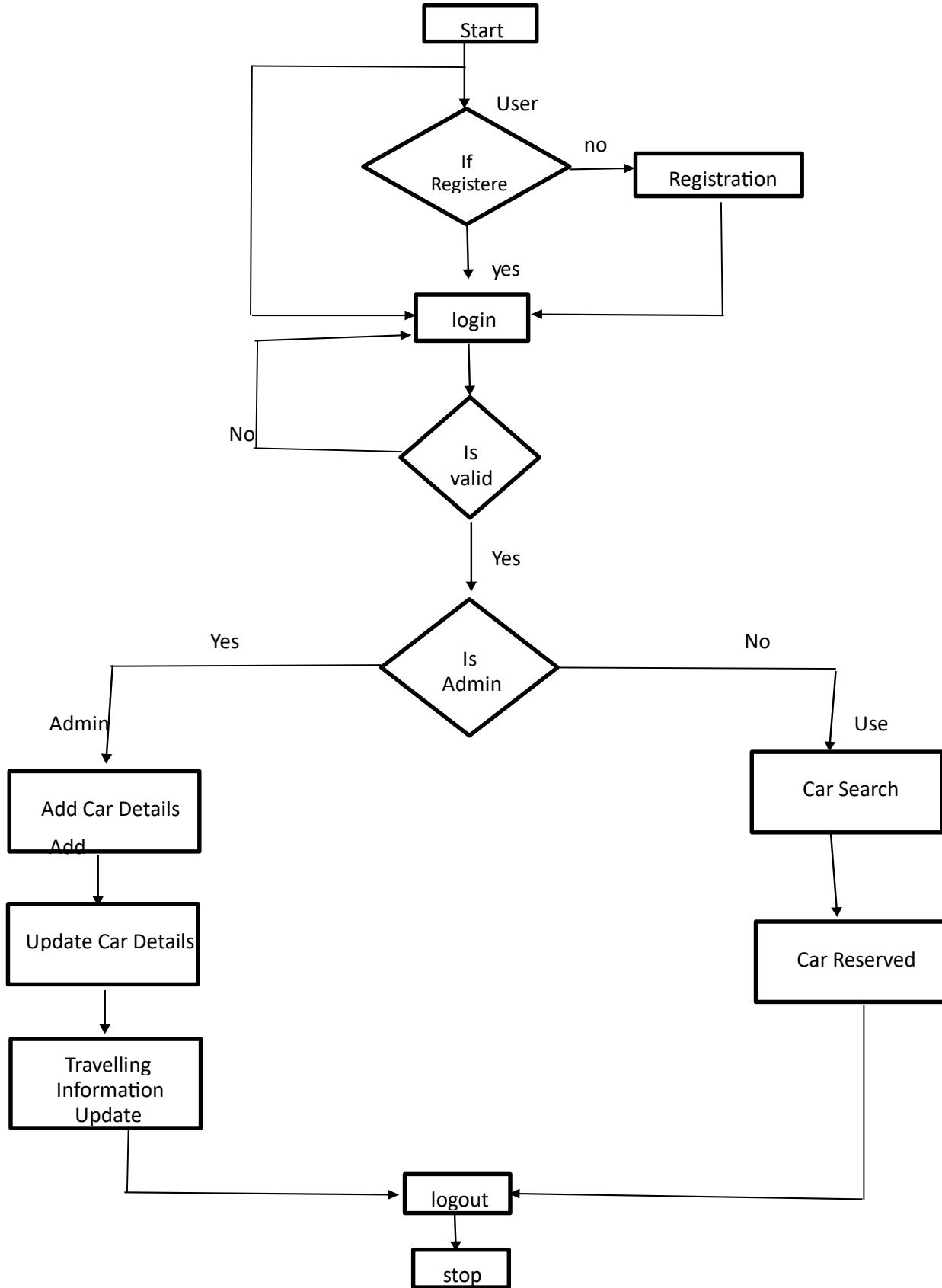
RDBMS TERMINOLOGY

Before we proceed to explain MySQL database system, let's revise few definitions related to database.

- Database: A database is a collection of tables, with related data.
- Table: A table is a matrix with data. A table in a database looks like a simple spreadsheet.
- Column: One column (data element) contains data of one and the same kind, for example the column postcode.
- Row: A row (= tuple, entry or record) is a group of related data, for example the data of one subscription
- Redundancy: Storing data twice, redundantly to make the system faster.
- Primary Key: A primary key is unique. A key value cannot occur twice in one table. With a key, you can find at most one row.
- Foreign Key: A foreign key is the linking pin between two tables.
- Compound Key: A compound key (composite key) is a key that consists of multiple columns, because one column is not sufficiently unique.
- Index: An index in a database resembles an index at the back of a book.
- Referential Integrity: Referential Integrity makes sure that a foreign key value always points to an existing row.

SYSTEM DESIGN

Flow Chart:



DATA FLOW DIAGRAM

DFD is the abbreviation for **Data Flow Diagram**. The flow of data of a system or a process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself. DFD does not have control flow and no loops or decision rules are present. Specific operations depending on the type of data can be explained by a flowchart. Data Flow Diagram can be represented in several ways. The DFD belongs to structured-analysis modelling tools. Data Flow diagrams are very popular because they help us to visualize the major steps and data involved in software-system processes.

Levels of DFD

DFD uses hierarchy to maintain transparency thus multilevel DFD's can be created. Levels of DFD are as follows:

- 0-level DFD
- 1-level DFD
- 2-level DFD

Advantages of DFD

- It helps us to understand the functioning and the limits of a system.
- It is a graphical representation which is very easy to understand as it helps visualize contents.
- Data Flow Diagram represent detailed and well explained diagram of system components.
- It is used as the part of system documentation file.
- Data Flow Diagrams can be understood by both technical or nontechnical person because they are very easy to understand.

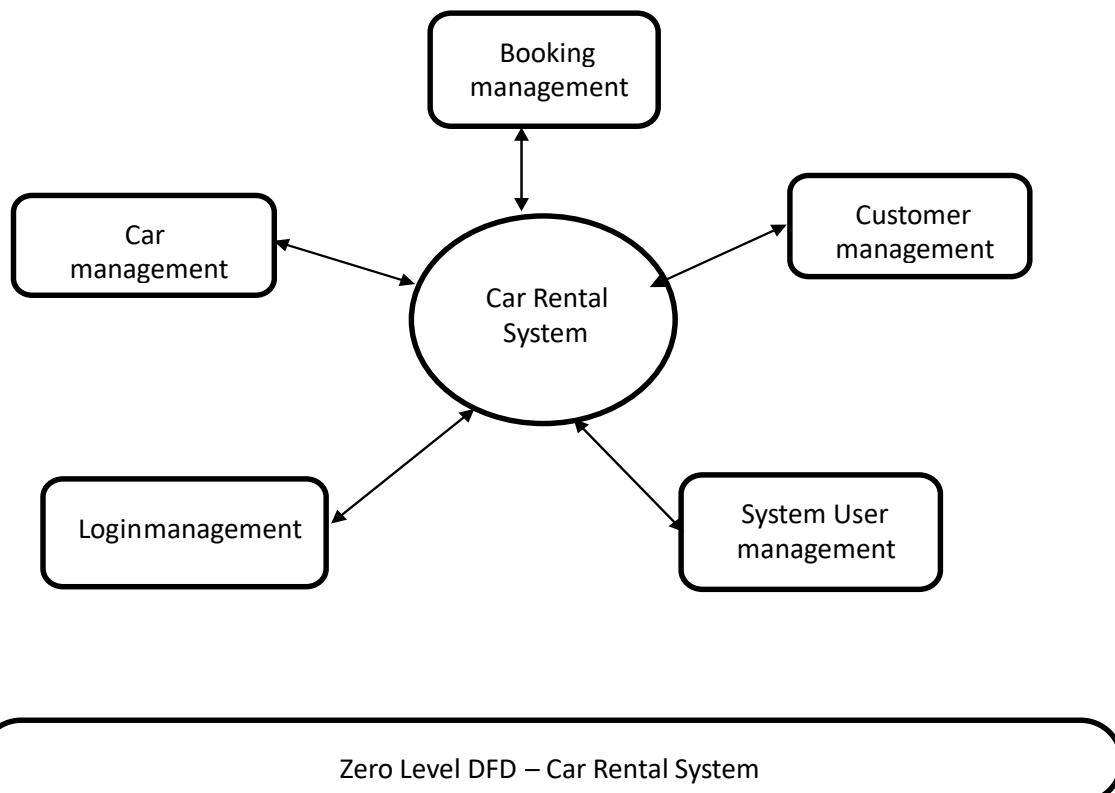
Disadvantages of DFD

- At times DFD can confuse the programmers regarding the system.
- Data Flow Diagram takes long time to be generated, and many times due to this reasons analysts are denied permission to work on it.

Zero Level DFD:

It is also known as a context diagram. It's designed to be an abstraction view, showing the system as a single process with its relationship to external entities.

It represents the entire system as a single bubble with input and output data indicated by incoming/outgoing arrows. It should be easily understood by a wide audience, including stakeholders, business analysts, data analysts and developers.

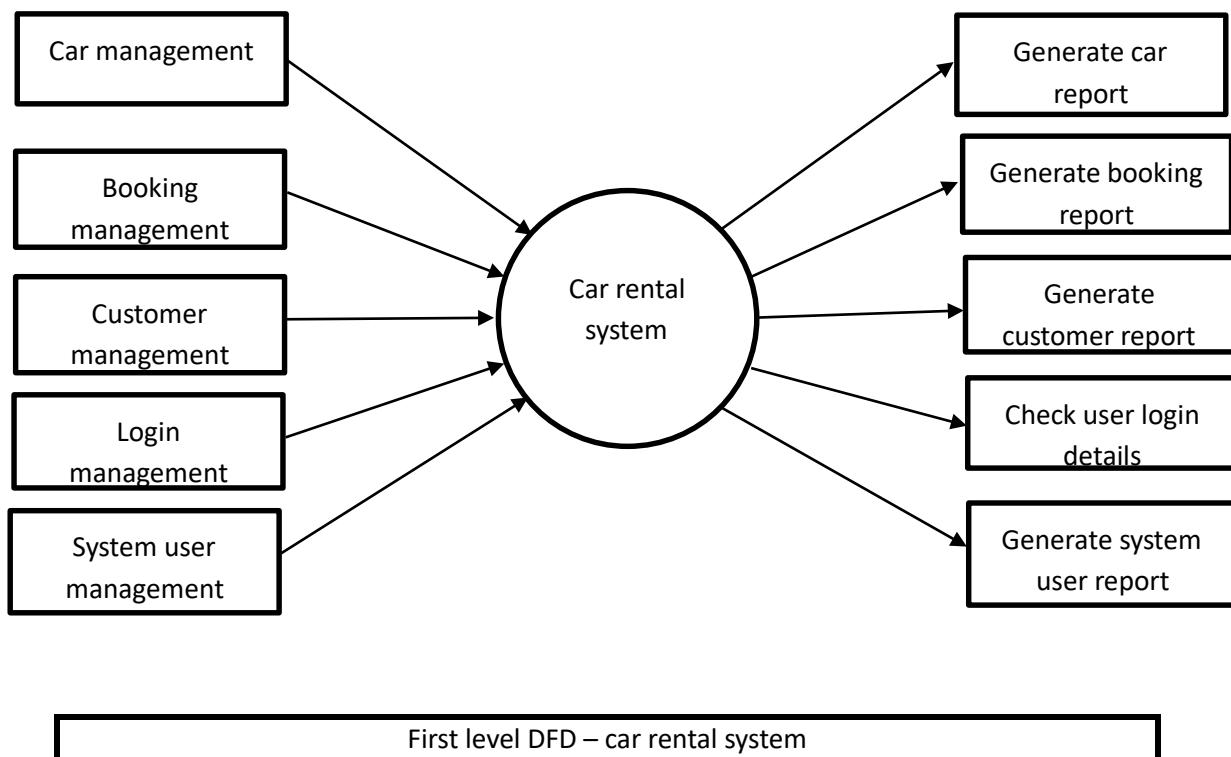


First Level DFD:

In 1-level DFD, the context diagram is decomposed into multiple bubbles/processes. In this level, we highlight the main functions of the system and breakdown the high-level process of 0-level DFD into sub processes.

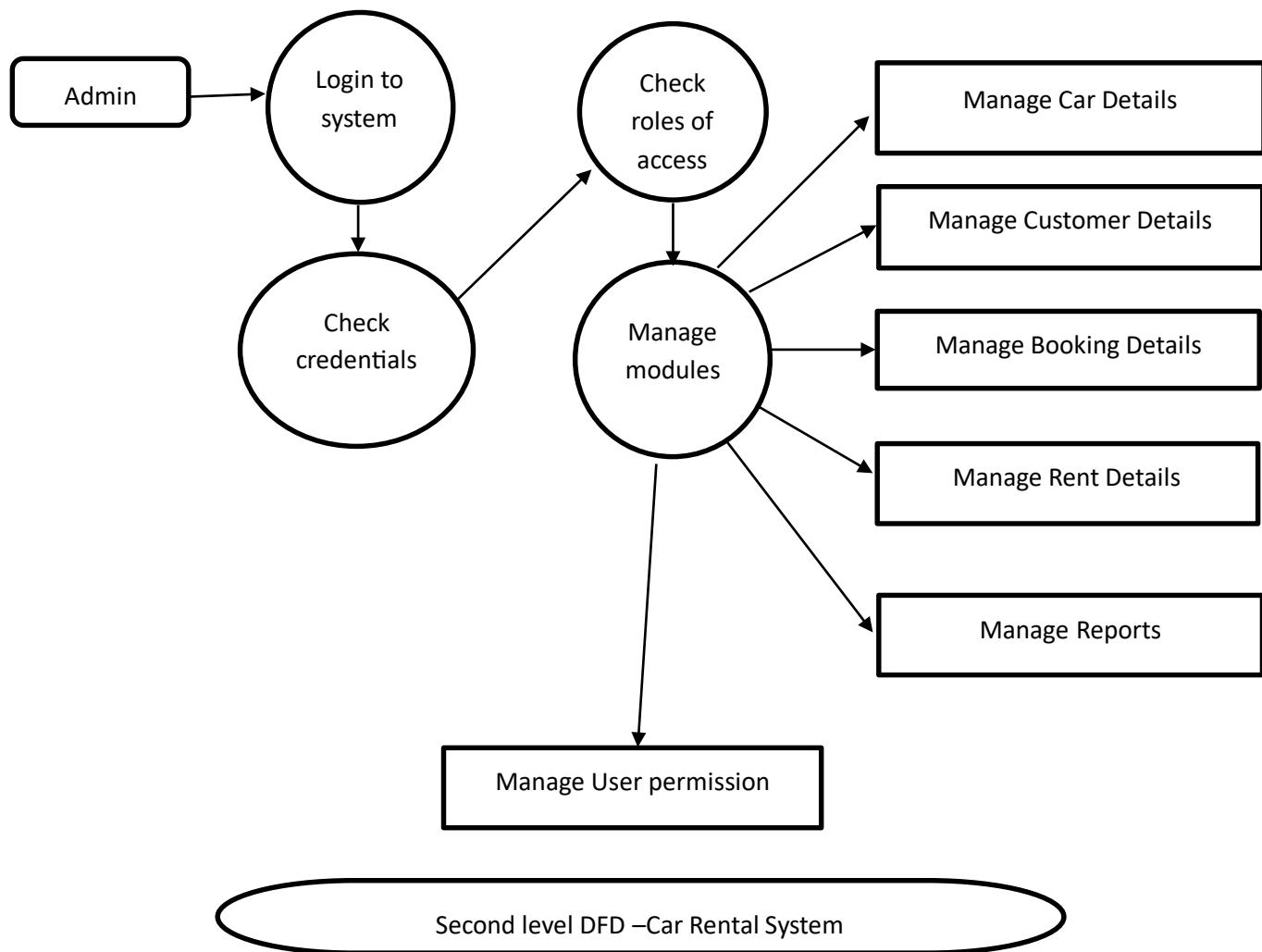
Level 1 DFD also mentions basic processes and sources of information.

- It provides a more detailed view of the Context Level Diagram.
- Here, the main functions carried out by the system are highlighted as we break into its sub-processes.



Second Level DFD:

2-level DFD goes one step deeper into parts of 1-level DFD. It can be used to plan or record the specific/necessary detail about the system's functioning.



DATABASE DIAGRAM

Admin:

Sno	Column name	Datatype	Constraint
1	ID	int(10)	Primary key
2	Username	varchar(50)	Not null
3	Password	varchar(50)	Not null

Tblusers:

Sno	Column name	Datatype	Constraint
1	ID	int(10)	Primary key
2	Full Name	varchar(50)	Not null
3	Password	varchar(50)	Not null
4	Email ID	varchar(50)	Not null
5	Contact Number	number(10)	Not null
6	Address	varchar(50)	Not null
7	City	varchar(50)	Allow null
8	Country	varchar(50)	Allow null

Tblbrands:

Sno	Column name	Datatype	Constraint
1	ID	int(10)	Primary key
2	Brand Name	varchar(50)	Not null
3	Creation date	Timestamp	Not null
4	Updating date	Timestamp	Not null

Tblbookings:

Sno	Column name	Datatype	Constraint
1	ID	int(10)	Primary key
2	Booking Number	bigint(12)	Not null
3	User email	varchar(50)	Not null
4	Vehicles id	int(11)	Not null
5	From date	varchar(50)	Not null
6	To date	varchar(50)	Not null
7	Message	varchar(50)	Not null
8	Status	int(10)	Not null

Tblvehicles:

Sno	Column name	Datatype	Constraint
1	ID	int(10)	Primary key
2	Vehicles title	varchar(50)	Not null
3	Vehicles brand	int(11)	Not null
4	Vehicles overview	longtext	Not null
5	Price per day	int(11)	Not null
6	Fuel type	varchar(50)	Not null
7	Model year		Not null
8	Seating capacity	int(10)	Not null
9	Vimage1	varchar(120)	Not null
10	Vimage2	varchar(120)	Not null
11	Vimage3	varchar(120)	Not null
12	Vimage4	varchar(120)	Not null
13	Vimage5	varchar(120)	Not null
14	Regdate	Timestamp	Not null

SYSTEM IMPLEMENTATION-MODULE DESCRIPTION

This project has the following main modules:

- Administrator Module
- User Module

1.Administrator Module:

The administrator is the owner of this Ecommerce website. he is responsible for the creation and maintenance of the accounts to the system .Admin is responsible for the creation of different kind of managers .Admin looks after the maintenance of these accounts. He has a feature of getting the password of a username

The administrator can perform the following functions:

- I) Login Control Panel
- II) Summary Page
- III) Add/Edit Cars Details, Image &Price
- IV) Home Page Cars Display

2. Users Module:

The users of this online car rental application are all customers who would rent to test the application. These users are anyone with renting experience and the knowhow to browse through a car rental application. They must have basic understandings about computers and the internet.

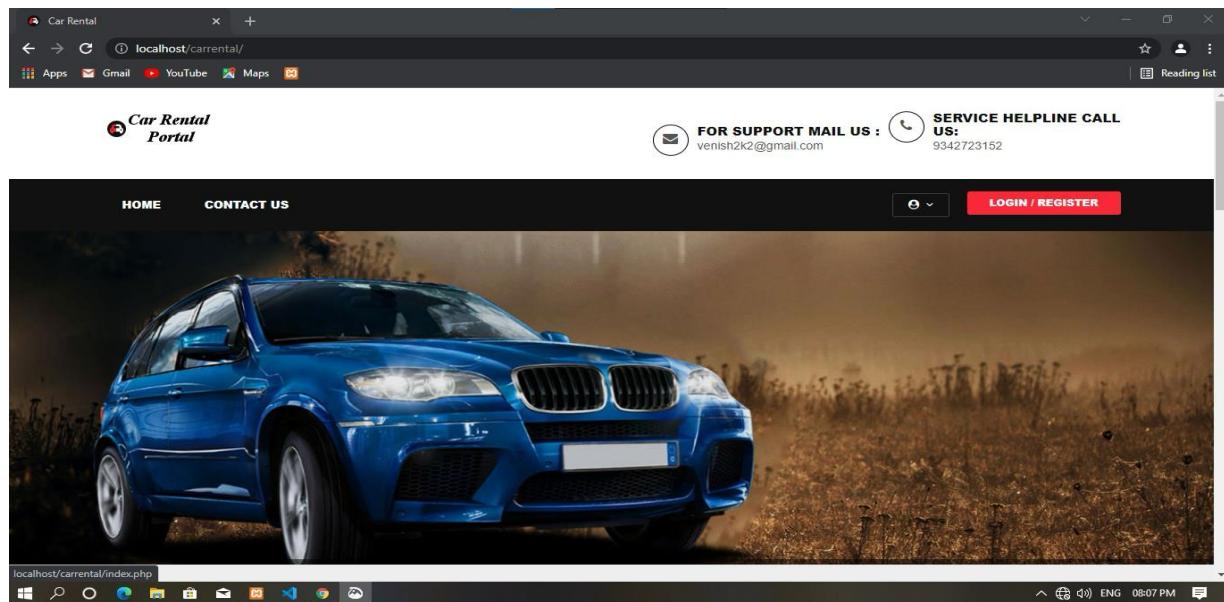
The users should be able to perform the following functions using this system:

- I)View, browse, and select a category on the home page.
- II)View, add, and update items in the cart.
- III)Delete items from the cart.
- IV)Check out the items from the application or continue shopping.
- V)Sign-up/login using a username and password.
- VI)Place the order by completing the order form.

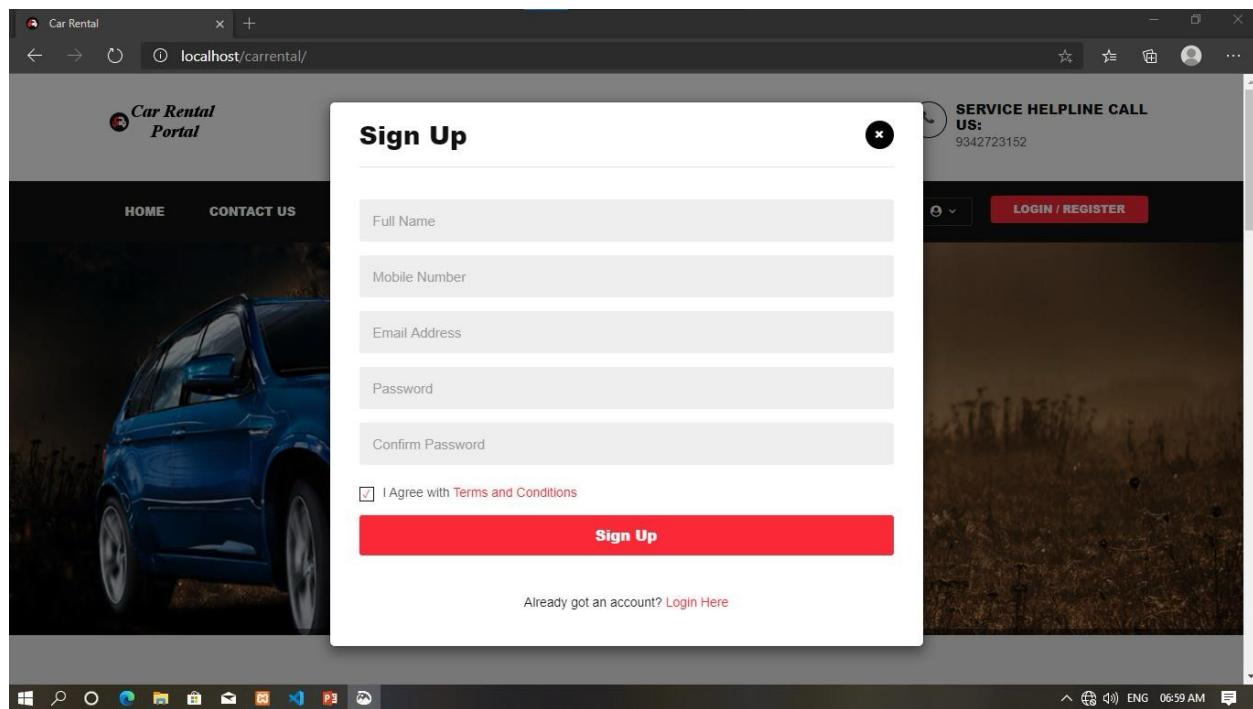
INPUT / OUTPUT

User module

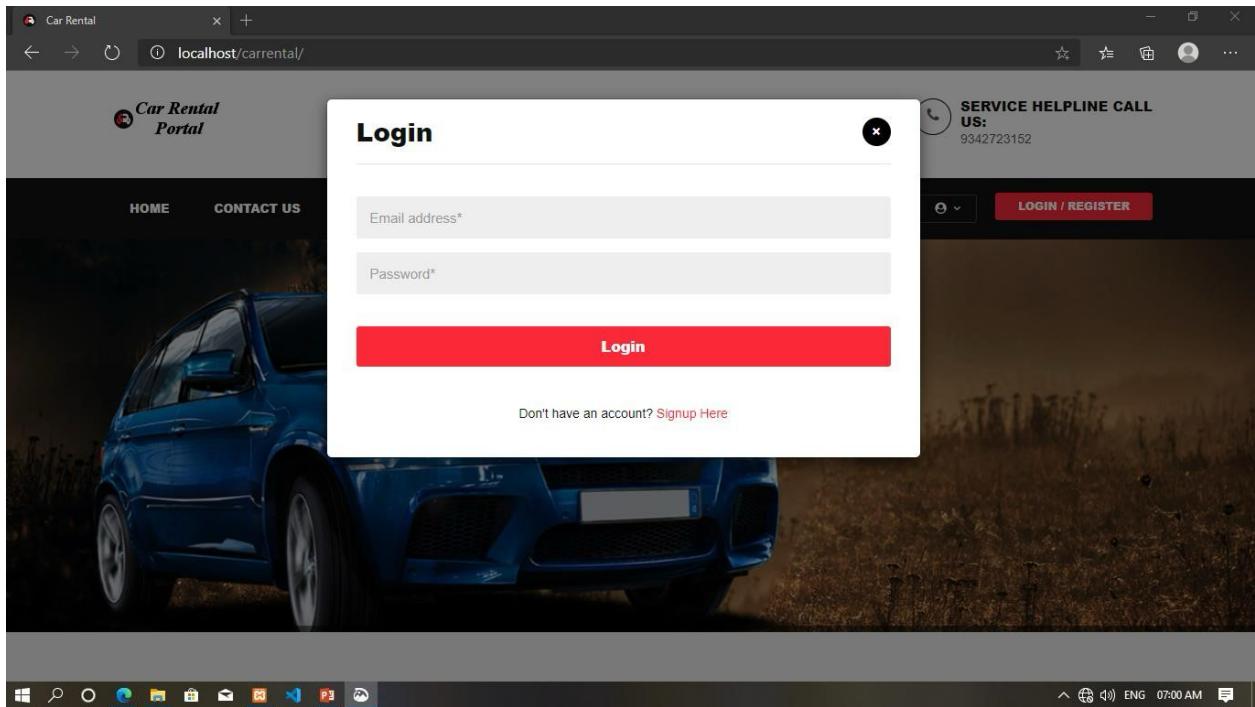
Home page:



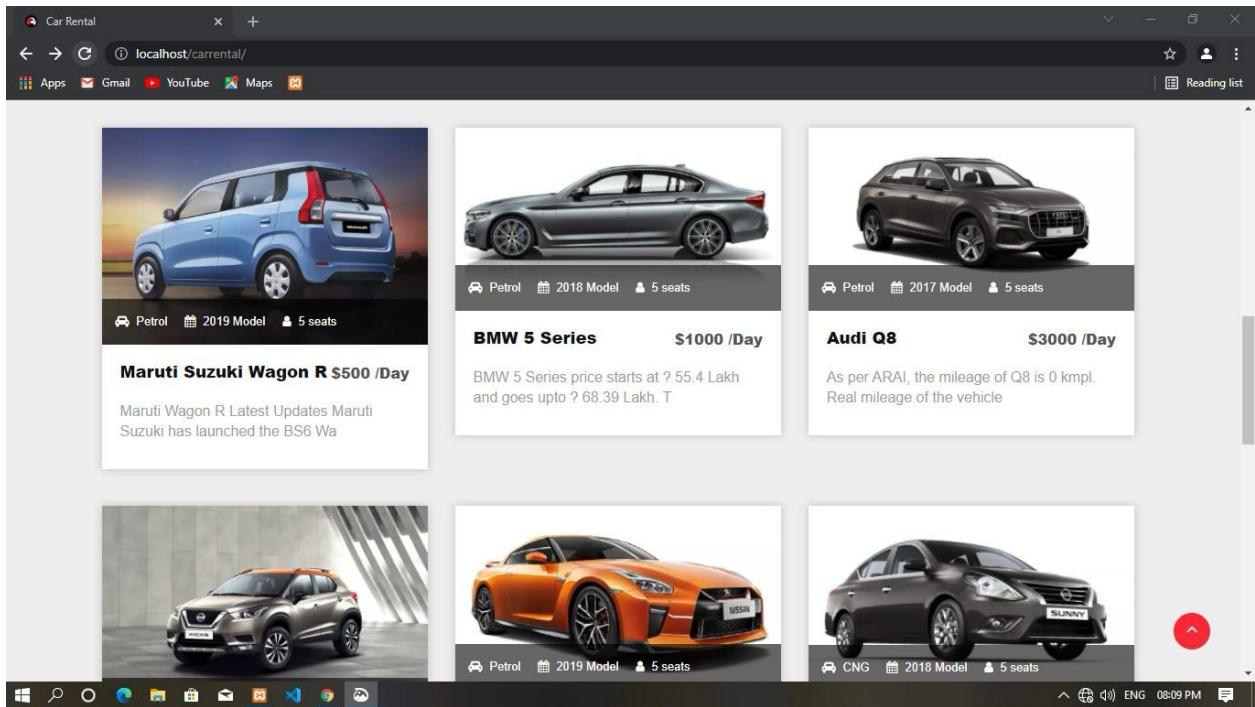
User Registration Form:



User Login Form:



Vehicles Page:



Car Booking Page:

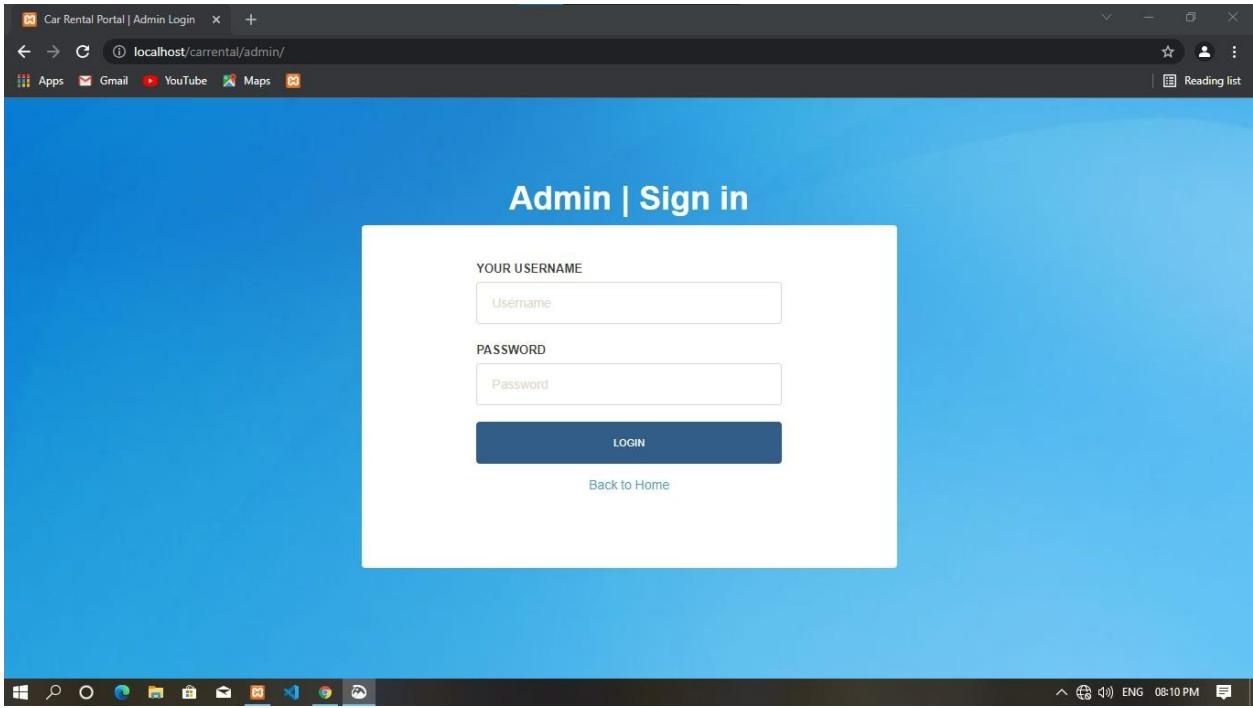
The screenshot shows a web browser window titled "Car Rental | Vehicle Details". The URL is "localhost/carrental/vehical-details.php?vhid=1". The main content features a large image of a Maruti Suzuki Wagon R. To the right, the price "500Rs" is displayed with "Per Day" below it. Below the vehicle image are three icons: a calendar labeled "2019 Red Year", a gear labeled "Petrol Fuel Type", and a person icon labeled "5 Seats". A red button labeled "Vehicle Overview" is highlighted, while another button labeled "Accessories" is grayed out. To the right, there is a "Book Now" section with fields for "From Date" and "To Date" (both set to "dd-mm-yyyy") and a "Message" input field. A red "LOGIN FOR BOOK" button is at the bottom. The browser's taskbar at the bottom shows various pinned icons.

About Us Page:

The screenshot shows a web browser window titled "Car Rental Portal | Page details". The URL is "localhost/carrental/page.php?type=aboutus". The main content features a large image of a city street with cars and people. Overlaid on the image is the word "About Us" in large white letters, with "Home > About Us" below it. Below the image, the heading "About Us" is centered. A paragraph of text follows, stating: "We offer a varied fleet of cars, ranging from the compact. All our vehicles have air conditioning, power steering, electric windows. All our vehicles are bought and maintained at official dealerships only. Automatic transmission cars are available in every booking class. As we are not affiliated with any specific automaker, we are able to provide a variety of vehicle makes and models for customers to rent." Another paragraph continues: "Our mission is to be recognised as the global leader in Car Rental for companies and the public and private sector by partnering with our clients to provide the best and most efficient Cab Rental solutions and to achieve service excellence." The browser's taskbar at the bottom shows various pinned icons.

Admin module:

Admin Login Page:



Dashboard:

A screenshot of a web browser window showing the 'Car Rental | Admin Panel' dashboard. The dashboard features a sidebar on the left with navigation links such as Dashboard, Brands, Vehicles, Bookings, Manage Contact Query, Reg Users, Manage Pages, and Update Contact Info. The main area is titled 'Dashboard' and displays four cards with statistics: 'REG USERS' (0), 'LISTED VEHICLES' (8), 'TOTAL BOOKINGS' (0), and 'LISTED BRANDS' (6). Each card has a 'FULL DETAIL' link. Below these cards is another card for 'QUERIES' (0) with a 'FULL DETAIL' link. The browser's address bar shows 'localhost/127.0.0.1/currental/admin/dashboard.php'. The taskbar at the bottom of the screen includes icons for various applications.

Create Brand Page:

The screenshot shows a web browser window titled "Car Rental Portal | Admin Create" with the URL "localhost/carrental/admin/create-brand.php". The page is titled "Create Brand" and contains a form with a single input field labeled "Brand Name" and a "Submit" button. On the left, there is a sidebar with a "Brands" section selected, showing other options like Dashboard, Vehicles, Bookings, etc. The status bar at the bottom shows system information including battery level, network, and time.

Manage Brands Page:

The screenshot shows a web browser window titled "Car Rental Portal | Admin Manage" with the URL "localhost/carrental/admin/manage-brands.php". The page is titled "Manage Brands" and displays a table of listed brands. The table has columns for #, Brand Name, Creation Date, Updation date, and Action. The data in the table is as follows:

#	Brand Name	Creation Date	Updation date	Action
1	Maruti	2017-06-18 21:54:34	2017-06-19 12:12:23	<input checked="" type="checkbox"/> <input type="checkbox"/>
2	BMW	2017-06-18 21:54:50		<input checked="" type="checkbox"/> <input type="checkbox"/>
3	Audi	2017-06-18 21:55:03		<input checked="" type="checkbox"/> <input type="checkbox"/>
4	Nissan	2017-06-18 21:55:13		<input checked="" type="checkbox"/> <input type="checkbox"/>
5	Toyota	2017-06-18 21:55:24		<input checked="" type="checkbox"/> <input type="checkbox"/>
6	Volkswagen	2017-06-19 11:52:13	2020-07-07 19:44:09	<input checked="" type="checkbox"/> <input type="checkbox"/>

At the bottom, it says "Showing 1 to 6 of 6 entries" and has navigation buttons for PREVIOUS, 1, and NEXT. The sidebar on the left is identical to the one in the "Create Brand" screenshot, showing the "Brands" section as active.

Post Vehicles Page:

The screenshot shows the 'Post A Vehicle' page. On the left is a dark sidebar with navigation links: Dashboard, Brands, Vehicles (selected), Bookings, Manage Contact Query, Reg Users, Manage Pages, and Update Contact Info. The main area has a title 'Post A Vehicle' and a 'BASIC INFO' section. It contains fields for 'Vehicle Title*' (text input), 'Select Brand*' (dropdown menu), 'Vehical Overview*' (text area), 'Price Per Day(in RS)*' (text input), 'Select Fuel Type*' (dropdown menu), 'Model Year*' (text input), and 'Seating Capacity*' (text input). Below this is an 'Upload Images' section with three file input fields labeled 'Image 1*', 'Image 2*', and 'Image 3*'. The status bar at the bottom shows system information like battery level, signal strength, and time.

Manage Vehicles Page:

The screenshot shows the 'Manage Vehicles' page. The sidebar is identical to the previous page. The main area has a title 'Manage Vehicles' and a 'VEHICLE DETAILS' section. It features a table with columns: #, Vehicle Title, Brand, Price Per day, Fuel Type, Model Year, and Action. The table contains 8 entries. At the bottom, there is a search bar and a message 'Showing 1 to 8 of 8 entries'. The status bar at the bottom shows system information like battery level, signal strength, and time.

#	Vehicle Title	Brand	Price Per day	Fuel Type	Model Year	Action
1	Maruti Suzuki Wagon R	Maruti	500	Petrol	2019	
2	BMW 5 Series	BMW	1000	Petrol	2018	
3	Audi Q8	Audi	3000	Petrol	2017	
4	Nissan Kicks	Nissan	800	Petrol	2020	
5	Nissan GT-R	Nissan	2000	Petrol	2019	
6	Nissan Sunny 2020	Nissan	400	CNG	2018	
7	Toyota Fortuner	Toyota	3000	Petrol	2020	
8	Maruti Suzuki Vitara Brezza	Maruti	600	Petrol	2018	

New Booking Page:

The screenshot shows a web browser window titled "Car Rental Portal | New Bookings" with the URL "localhost/carrental/admin/new-bookings.php". The page is part of the "Car Rental | Admin Panel".

The left sidebar has a "MAIN" category with the following items:

- Dashboard
- Brands
- Vehicles
- Bookings
- Manage Contact Query
- Reg Users
- Manage Pages
- Update Contact Info

The main content area is titled "New Bookings" and contains a table titled "BOOKINGS INFO".

Table Headers:

#	Name	Booking No.	Vehicle	From Date	To Date	Status	Posting date	Action
---	------	-------------	---------	-----------	---------	--------	--------------	--------

Table Data:

1	venish	906674527	Audi , Audi Q8	2022-05-22	2022-05-24	Not Confirmed yet	2022-05-22 19:12:09	View
---	--------	-----------	----------------	------------	------------	-------------------	---------------------	----------------------

Below the table, it says "Showing 1 to 1 of 1 entries".

At the bottom right of the page, there are buttons for "PREVIOUS" and "NEXT".

The system status bar at the bottom shows: ENG 07:12 PM.

SAMPLE CODE

User Module:

```
Index.php <?php
session_start();
include('includes/config.ph
p'); error_reporting(0);
?>
<!DOCTYPE HTML>
<html lang="en">
<head>
<title>Car Rental</title>
<!--Bootstrap -->
<link rel="stylesheet" href="assets/css/bootstrap.min.css" type="text/css">
<link rel="stylesheet" href="assets/css/style.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.carousel.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.transitions.css" type="text/css">
<link href="assets/css/slick.css" rel="stylesheet">
<link href="assets/css/bootstrap-slider.min.css" rel="stylesheet">
<link href="assets/css/font-awesome.min.css" rel="stylesheet"> <link
rel="apple-touch-icon-precomposed" sizes="144x144"
href="assets/images/favicon-icon/apple-touch-icon-144-
precomposed.png">
<link rel="apple-touch-icon-precomposed" sizes="114x114"
href="assets/images/favicon-icon/apple-touch-icon-114-precomposed.html">
<link rel="apple-touch-icon-precomposed" sizes="72x72"
href="assets/images/favicon-icon/apple-touch-icon-72-precomposed.png">
<link rel="apple-touch-icon-precomposed"
href="assets/images/faviconicon/apple-touch-icon-57-precomposed.png">
```

```
<link rel="shortcut icon" href="assets/images/favicon-icon/favicon.png">
<link href="https://fonts.googleapis.com/css?family=Lato:300,400,700,900"
rel="stylesheet">
<style>
.container{
position:
relative;
}
.container .card{
position: relative;
width: 320px;
height: 450px;
background:
#232323; border-
radius: 20px;
overflow: hidden;
}
.container
.card:before{
content: "";
position: absolute;
top: 0; left: 0;
width: 100%; height: 100%;
background: #9bdc28; clip-path:
circle(150px at 80% 20%);
transition: 0.5s ease-in-out;
}
.container .card:hover:before{ clip-
path: circle(300px at 80% -20%);
```

```
}

.container .card:after{
content: 'Rent'; position:
absolute; top: 30%;
left: -20%; font-size:
12em; font-weight: 800;
font-style: italic; color:
rgba(255,255,25,0.05)
}

.container .card .imgBx{
position: absolute; top:
50%; transform:
translateY(-50%); z-
index: 10000; width:
100%; height: 220px;
transition: 0.5s;
}

.container .card:hover
.imgBx{ top: 0%;
transform: translateY(0%);
}

.container .card .imgBx img{
position: absolute; top: 50%;
left: 50%; transform:
translate(-50%, -50%) ;
width: 270px;
}

.container .card
.contentBx{ position:
```

```
absolute; bottom: 0;
width: 100%; height:
100px; text-align:
center; transition: 1s;
z-index: 10;
}

.container .card:hover .contentBx{
height: 200px;
}

.container .card .contentBx
h2{ position: relative;
font-weight: 600; letter-
spacing: 1px; color: #fff;
margin: 0;
}

.container .card .contentBx .size, .container .card .contentBx .color { display:
flex; justify-content: center; align-items: center; padding: 8px 20px;
transition: 0.5s; opacity: 0;
visibility: hidden; padding-
top: 0; padding-bottom: 0;
}

.container .card:hover .contentBx
.size{ opacity: 1; visibility:
visible; transition-delay: 0.5s;
}

.container .card:hover .contentBx
.color{ opacity: 1; visibility:
visible; transition-delay: 0.6s;
}
```

```
.container .card .contentBx .size h3, .container .card .contentBx .color
h3{ color: #fff; font-weight: 400; font-size: 18px; text-
transform: uppercase; letter-spacing: 2px; margin-right: 10px;
}

.container .card .contentBx .size
span{ width: 100px; height:
26px; text-align: center; line-
height: 26px; font-weight: 800;
font-size: 14px; display: inline-
block; color: #111;
background: #fff;
margin: 0 5px;
transition: 0.5s;
color: #111;
border-radius: 4px;
cursor: pointer;
}

.container .card .contentBx .size span:hover{
background: #9bdc28;
}

.container .card .contentBx .color
span{ width: 20px; height:
20px; background: #ff0; border-
radius: 50%; margin: 0 5px;
cursor: pointer;
}

.container .card .contentBx .color span:nth-child(2){
background: #9bdc28;
}
```

```
.container .card .contentBx .color span:nth-child(3){  
background: #03a9f4;  
}  
.container .card .contentBx .color span:nth-child(4){  
background: #e91e63;  
}  
.container .card .contentBx  
a{ display: inline-block;  
padding: 10px 20px;  
background: #fff;  
border-radius: 4px;  
margin-top: 10px; text-  
decoration: none; font-  
weight: 600; color:  
#111;  
opacity: 0; transform:  
translateY(50px);  
transition: 0.5s; margin-  
top: 0;  
}  
.container .card:hover .contentBx  
a{ opacity: 1; transform:  
translateY(0px); transition-  
delay: 0.75s;  
}  
</style>  
</head>  
<body>  
<!--Header-->
```

```
<!-- Resent Cat-->

<section class="section-padding gray-bg">
  <div class="container">
    <div class="section-header text-center">
      <h2>Find the Best <span>CarForYou</span></h2>
      <p>There are many variations of passages of Lorem Ipsum available, but the
        majority have suffered alteration in some form, by injected humour, or
        randomised words which don't look even slightly believable. If you are going to
```

use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text.</p>

```
</div>

<div class="row">

    <!-- Nav tabs -->
    <div class="recent-tab">
        <ul class="nav nav-tabs" role="tablist">
            <li      role="presentation"      class="active"><a      href="#resentnewcar"
role="tab" data-toggle="tab">New Car</a></li>
        </ul>
    </div>

    <!-- Recently Listed New Cars -->
    <div class="tab-content">
        <div role="tabpanel" class="tab-pane active" id="resentnewcar">

<?php $sql = "SELECT
tblvehicles.VehiclesTitle,tblbrands.BrandName,tblvehicles.PricePerDay,tblvehicl
e
s.FuelType,tblvehicles.ModelYear,tblvehicles.id,tblvehicles.SeatingCapacity,tblv
e hicles.VehiclesOverview,tblvehicles.Vimage1 from tblvehicles join tblbrands
on tblbrands.id=tblvehicles.VehiclesBrand limit 9";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;           if($query-
>rowCount() > 0)
{
    foreach($results   as
$result)
```

```

{
?>

<div class="col-list-3">
<div class="recent-car-list">
<div class="car-info-box"> <a href="vehical-details.php?vhid=<?php echo
htmlentities($result->id);?>"></a>
<ul>
<li><i class="fa fa-car" aria-hidden="true"></i><?php echo htmlentities($result-
>FuelType);?></li>
<li><i class="fa fa-calendar" aria-hidden="true"></i><?php echo
htmlentities($result->ModelYear);?> Model</li>
<li><i class="fa fa-user" aria-hidden="true"></i><?php echo
htmlentities($result-
>SeatingCapacity);?> seats</li>
</ul>
</div>
<div class="car-title-m">
<h6><a href="vehical-details.php?vhid=<?php echo htmlentities($result-
>id);?>">
<?php echo htmlentities($result->VehiclesTitle);?></a></h6>
<span class="price">Rs<?php echo htmlentities($result->PricePerDay);?>
/Day</span>
</div>
<div class="inventory_info_m">
<p><?php echo substr($result->VehiclesOverview,0,70);?></p>
</div>
</div>
</div>

```

```
<?php }}?>

        </div>
    </div>
</div>
</section>
<!-- /Resent Cat -->

<!--Footer -->
<?php include('includes/footer.php');?>
<!-- /Footer-->

<!--Back to top-->
<div id="back-top" class="back-top"> <a href="#top"><i class="fa fa-angle-up" aria-hidden="true"></i> </a> </div>
<!--/Back to top-->

<!--Login-Form -->
<?php include('includes/login.php');?>
<!--/Login-Form -->

<!--Register-Form -->
<?php include('includes/registration.php');?>
<!--/Register-Form -->
<!-- Scripts -->
<script src="assets/js/jquery.min.js"></script>
<script src="assets/js/bootstrap.min.js"></script>
<script src="assets/js/interface.js"></script>
<!--Switcher-->
```

```

<script src="assets/switcher/js/switcher.js"></script>
<!--bootstrap-slider-JS-->
<script src="assets/js/bootstrap-slider.min.js"></script>
<!--Slider-JS-->
<script src="assets/js/slick.min.js"></script>
<script src="assets/js/owl.carousel.min.js"></script>
</body>
</html>

```

Login.php

```

<?php
if(isset($_POST['login'])
)) {
$email=$_POST['email'];
$password=md5($_POST['password']);
$sql ="SELECT EmailId,Password,FullName FROM tblusers WHERE
EmailId=:email and Password=:password";
$query= $dbh -> prepare($sql);
$query-> bindParam(':email', $email, PDO::PARAM_STR);
$query-> bindParam(':password', $password, PDO::PARAM_STR);
$query-> execute();
$results=$query->fetchAll(PDO::FETCH_OBJ); if($query-
>rowCount() > 0)
{
$_SESSION['login']=$_POST['email'];
$_SESSION['fname']=$results->FullName;
}
}

```

```

$currentpage=$_SERVER['REQUEST_URI'];

echo "<script type='text/javascript'> document.location = '$currentpage';
</script>"; } else{

echo "<script>alert('Invalid Details');</script>";

}

?>

<div class="modal fade" id="loginform">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<button type="button" class="close" data-dismiss="modal"
aria-label="Close"><span aria-hidden="true">&times;</span></button>
<h3 class="modal-title">Login</h3>
</div>
<div class="modal-body">
<div class="row">
<div class="login_wrap">
<div class="col-md-12 col-sm-6">
<form method="post">
<div class="form-group">
<input type="email" class="form-control" name="email"
placeholder="Email address*>
</div>

```

```
<div class="form-group">
    <input type="password" class="form-control"
name="password" placeholder="Password*>
</div>

<div class="form-group checkbox">
    <input type="checkbox" id="remember">
</div>

<div class="form-group">
    <input type="submit" name="login" value="Login" class="btn
btnblock">
</div>
</form>
</div>
</div>
</div>
<div class="modal-footer text-center">
    <p>Don't have an account? <a href="#signupform" data-toggle="modal"
data-dismiss="modal">Signup Here</a></p>
</div>
</div>
</div>
</div>
```

FUTURE ENHANCEMENT

Every Edition of a book comes with new topics and modifications if any errors are present. In the similar way, in near future, our application will overcome the flaws if occurred, and attains new features offered to the Flexible and easy Transportation. Following are the Enhancements to the application.

- Providing Good User Interface.
- Try to Implement the GPS system in the Cabs.

CONCLUSION

Car Rental System is a Web application and it is restricted to only Registered type of users. In this application Admin have been given access rights and they are restricted up to their functionalities, so that the data is maintained securely and redundant data is prevented. As the Data is stored electronically, it is necessary to have a Computer and Network connection to access the Application.

BIBLIOGRAPHY

During the development of project, we have used the following books.

BOOKS:

PHP6 and MYSQL

(By: Steve Ushering Tim Converse Joyce Park)

PHP Cookbook

(By: David Skylar Adam Trachtenberg)