

“CAR RENTAL SYSTEM”

Mini- Project

(Third Year/ Sem V)

Submitted in fulfilment of the requirement of University of Mumbai
For the Degree of

**Bachelor Of Engineering
(Computer Engineering)**

By

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Internal Approval Sheet



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CERTIFICATE

This is to certify that

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*Has satisfactorily completed the requirements of the **DBMS Mini Project** entitled*

“Car Rental System”

*As prescribed by the **University of Mumbai** Under the guidance of*

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Project Report Approval

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“Car Rental System”

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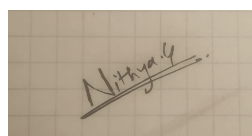
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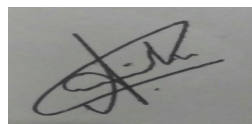
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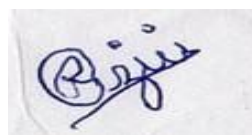
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I take the privilege to express my sincere thanks to **Dr Lakshmappa Ragha**, our Principal for providing encouragement and support.

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 on the website has the facility to book a vehicle which he requires.

The proposed system is a completely integrated online system. It automates manual procedure in an effective and efficient way. This automated system facilitates customers and provides to fill up the details according to their requirements. It includes the 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:

1. 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.
2. 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.
3. The final phase involves the daily operations in which the deployment of the fleet within each pool among its locations is defined.

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CHAPTER 1

INTRODUCTION

1.1 Need for Car Rental System

Nowadays, there is Online Car Rental which gives much benefit to users. A rental service is a service in which customers arrive to request the hire of a rental unit. It is more convenient than carrying the cost of owning and maintaining the unit. A car rental is a company that rents automobiles for a short period of time for a fee for a few hours or a few days or a week.^[1]

It helps to book the cars or vehicles online rather than using the traditional manual system of vehicle reservation. This eliminates the risk of erroneous booking and reduces overall lead time and ensures growth in customer satisfaction. They can book any car according to their brands and price.^[3]

1.2 Objective of the Project

The objective of the project is to automate vehicle rental and reservation so that the customers do not need to call and spend unnecessary time to reserve a vehicle.

- To transform the manual process of hiring car to a computerized system
- To validate the Rental car system using user satisfaction test
- To produce the documentation such as Software Requirement Specification(SRS), Software Design Description as system development reference

1.3 Methodology/Procedure

- For the development of the project the designing of the database was done on PHPMYADMIN, back end was coded in basic PHP and for frontend we used the same basic PHP codes.
- Software methodologies are concerned with the process of creating software – not so much the technical side but the organizational aspects. Several software development approaches have been used since the origin of information technology.

1.4 Project Framework

A framework is a standardized set of concepts, practices, and criteria for dealing with a common type of problem, which can be used as a reference to help us approach and resolve new problems of a similar nature.

The aim of the framework is to provide a common structure so that developers don't have to redo it from scratch and can reuse the code provided. In this way, frameworks allow us to cut out much of the work and save a lot of time.

1.5 Data and Information

Data collection plays an important role in a project's success and also it plays an inevitable role in the timely completion of the project. The data in the project includes contact information of the clients and their respective feedbacks/complaints which is stored in a database. To assure safety, only the admin has proper access to the information provided by the clients.

1.6 Tools Used

→ Xampp:

◆ Apache:

- (Application Server) Apache, often referred to as Server, is an open-source Java Servlet Container developed by the Apache Software Foundation.

◆ MySQLServer:

- It handles large databases much faster than existing solutions.
- It consists of multi-threaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and application programming interfaces (APIs)
- Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

→ **Sublime Text** - Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance.

→ **Web browsers:** Google Chrome, Mozilla Firefox, Opera and Internet Explorer.

→ **Github:** GitHub Inc. is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all of the distributed version control and source code management functionality of Git as well as adding its own features.

CHAPTER 2

PROBLEM STATEMENT

2.1 Problem Statement

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 simplifies vehicle and staff management.

2.2 Problem Solution

- To produce a web-based system that allows customers to register and reserve cars online and for the company to effectively manage their car rental business.
- To ease customers' tasks whenever they need to rent a car.

2.3 Project scope and features

This project traverses a lot of areas ranging from business concept to computing field, and is 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.

2.4 Functional 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 hold and the interfaces with the user.

The functional requirements identified are -

- **Customer registration** - The system should allow new users to register online and generate membership cards.
- **Online reservation of cars** - Customers should be able to use the system to make booking and online reservation.
- **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.

2.5 Non-functional Requirements

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

- **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't login to view users page.
- **Performance and Response time** - The system should have a high performance rate when executing users input and should be able to provide feedback or response within a short time span usually 50 seconds for highly complicated tasks and 20 to 25 seconds for less complicated tasks.

- **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 users input is highly essential. Also the standard time taken to recover from an error should be 15 to 20 seconds.
- **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.
- **Ease of use** - Considering 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 require less training.

2.6 ASSUMPTIONS

- Each booking is associated with only one car reservation at a time.
- Cars available in the system should be present at some location.
- Billing may or may not have discount code applied.
- Not all Booking is associated with billing because of the cancelled bookings.
- Booking may or may not have rental insurance because the customer may have his own insurance.

CHAPTER 3

LITERATURE SURVEY

3.1 System Analysis

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- why do all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using the existing system. During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the framework of the solution. Thus it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs. System analysis can be categorized into four parts.^[3]

- System planning and initial investigation
- Applying analysis tools for structured analysis
- Feasibility study
- Cost/ Benefit analysis.

3.2 Problem Analysis

This stage there is no existing system previously; we are developing a new system. Till now no system is available with this type of features and facilities. This system is developed for the all types of users with highly flexible and configurable product is envisaged to ensure global marketing^[3]

3.3 Design and Development Problem

- Problem in running XAMPP.
- To debug the error during the development.
- To show a relationship between entities.
- Minor error with database table.

3.4 Feasibility Analysis

A feasibility analysis is conducted once the problem is clearly understood. The purpose of the study is to determine whether the problem is worth solving. It is an analysis and evaluation of a proposed project to determine if it is technically feasible.

3.5 Economical Analysis

The economic feasibility of a system is used to evaluate the benefits achieved from and the costs incurred for the project or system. This is done by a process called cost benefit analysis. It provides tangible and intangible benefits like reduction in cost, more flexibility, faster activities, proper database management, etc.

The application is a medium scale application and is economically feasible for us to accomplish it. This involves cost benefits analysis. Thus there is no problem of high cost and cost benefits analysis.

3.6 Software Analysis

- Consumes a long-time for development of web applications.
- Research and analysis cost to determine the actual need in the real world.
- Implementation of application in the server and cost associated with the space in server.

3.7 Data Conversion

Another cost associated while implementing this web application is the data conversion. The previously used software database must be stored and backed up such that there will be no loss in implementing a new web application which consumes time as well as money.

3.8 Operational Feasibility

The system is operational feasible as the system can be operated by normal users with basic computer skills without any additional training. We have developed this system with the willingness and ability to create, manage and operate the system which is easy for the end users to operate it.

3.9 User Case Diagram

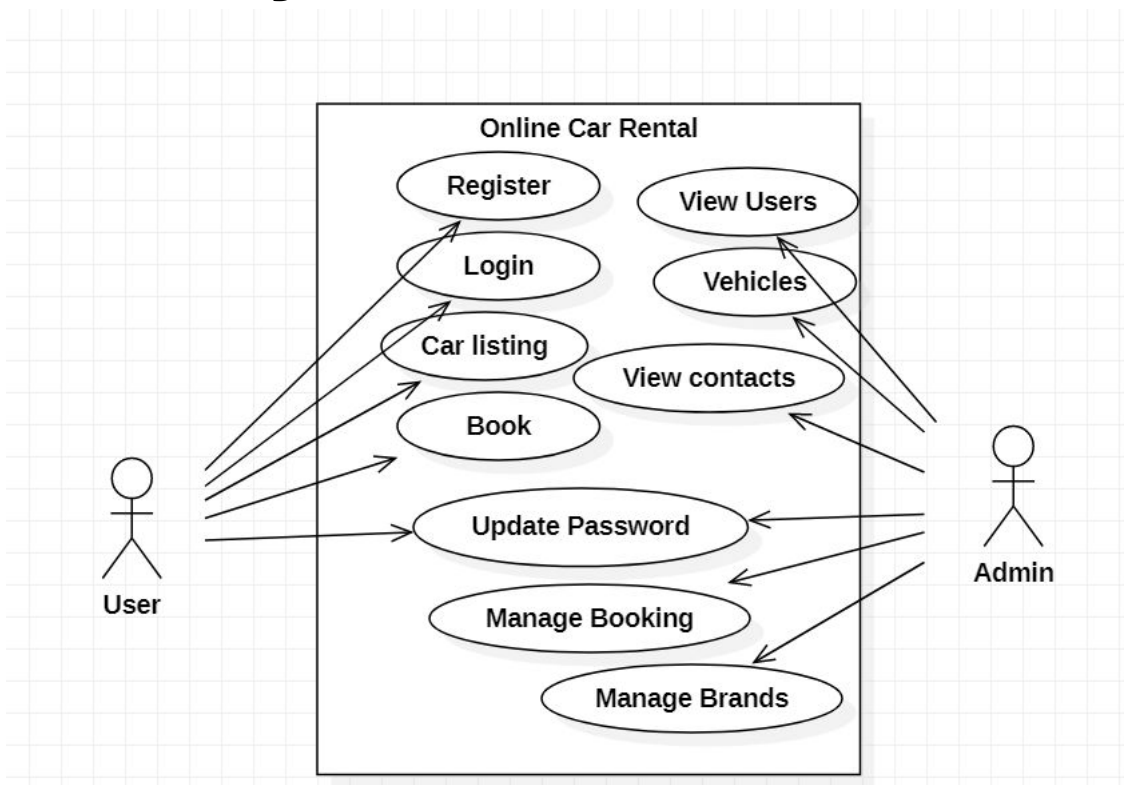


Figure 3.1: User Case Diagram

Above figure represents the Use Case Diagram of the project and is a useful technique for identifying, clarifying, and organizing system requirements. It describes how a user uses a system to accomplish a particular goal. Use cases help ensure that the correct system is developed by capturing the requirements from the user's point of view.

3.10 Gantt Chart

A Gantt chart illustrates how the project will run. It communicates with the client and shows them the expected date of project completion. It helps you assess how long a project should take, determine the resources needed, and plan the order in which you'll complete a task.

CHAPTER 4

DESIGN

4.1 Design Process:

User interface (UI) design is the process designers use to build interfaces in software or computerized devices, focusing on looks or style. Designers aim to create interfaces which users find easy to use and pleasurable. UI design refers to graphical user interfaces and other forms.

4.2 Data Flow Diagram

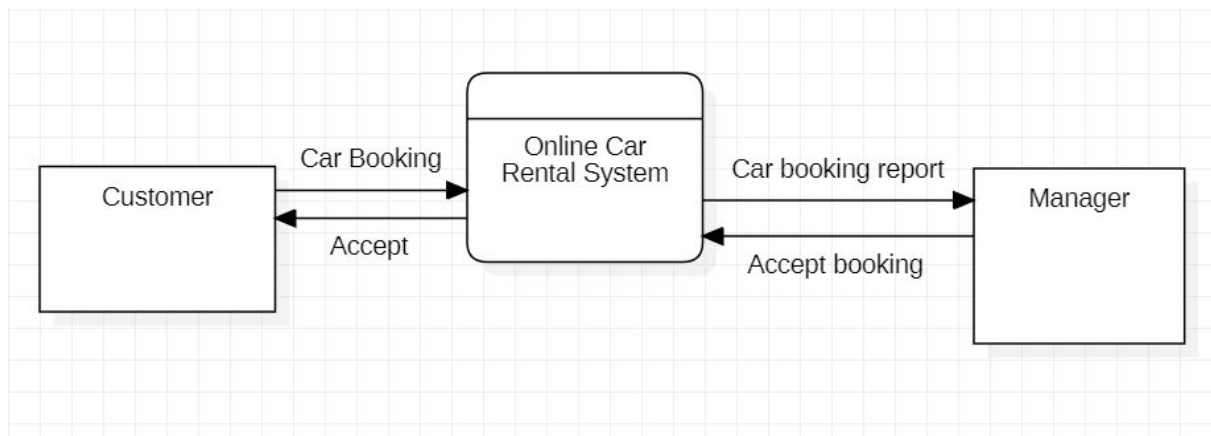


Figure 4.1: Data Flow Diagram

Above Data Flow Diagram, explains the overall structure of the system. It shows how and what types of services the client chooses and the amount of admin interaction in it.

4.3 Sequence Diagram

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

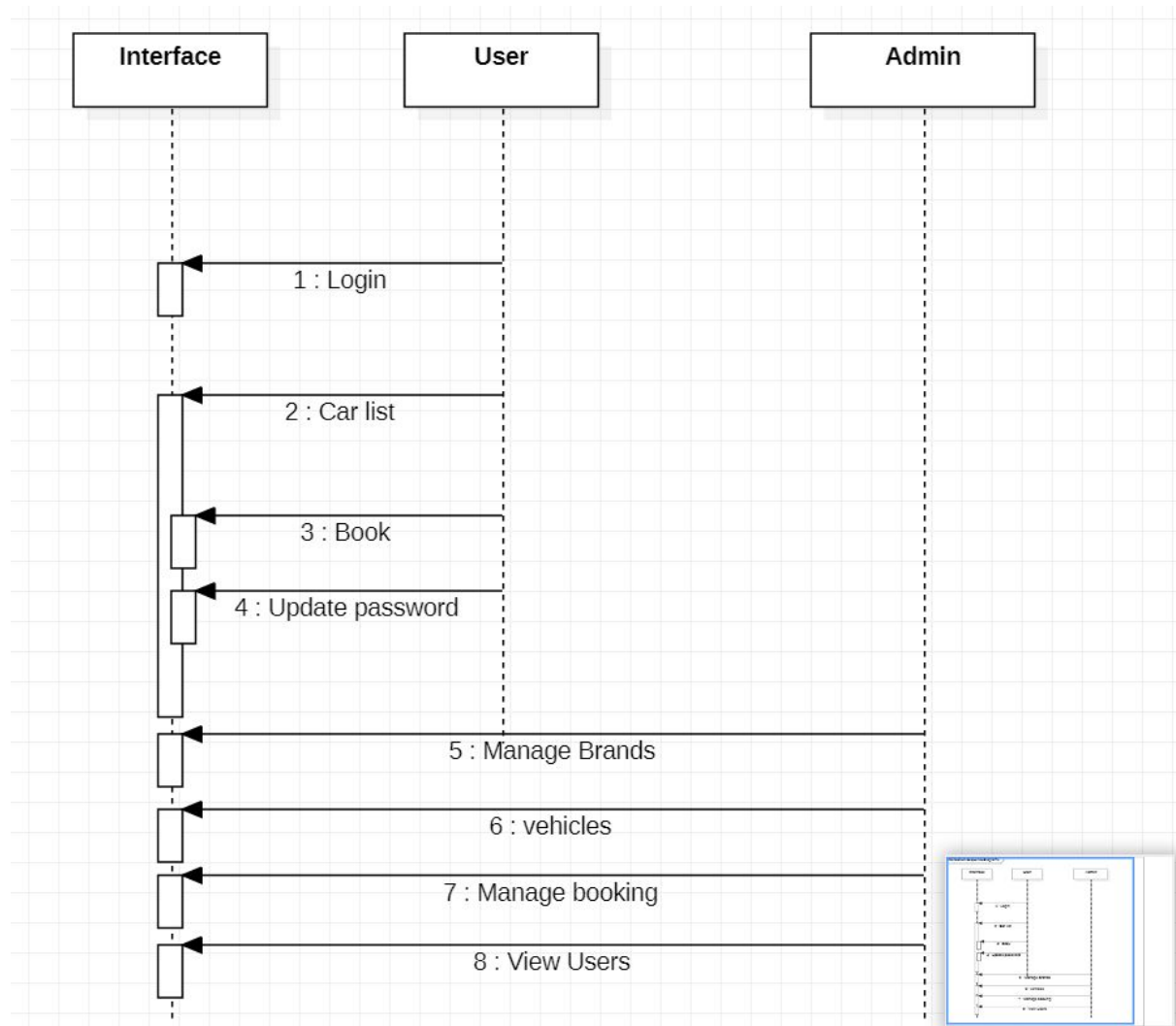


Figure 4.2: Sequence Diagram

Above diagram represents the Sequence Diagram of the project which is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

4.4 ER/EER Diagram

Our ERD model contains five distinct Entities, four Relationships and the respective Attributes. Specifically:

Entities: Cars, Vehicle Categories, Customers, Locations and Reservations.

1. Entities are indicated with blue color.
2. Relationships are indicated with green color.
3. Primary keys are indicated with pink color.
4. Foreign Keys are indicated with light blue color.

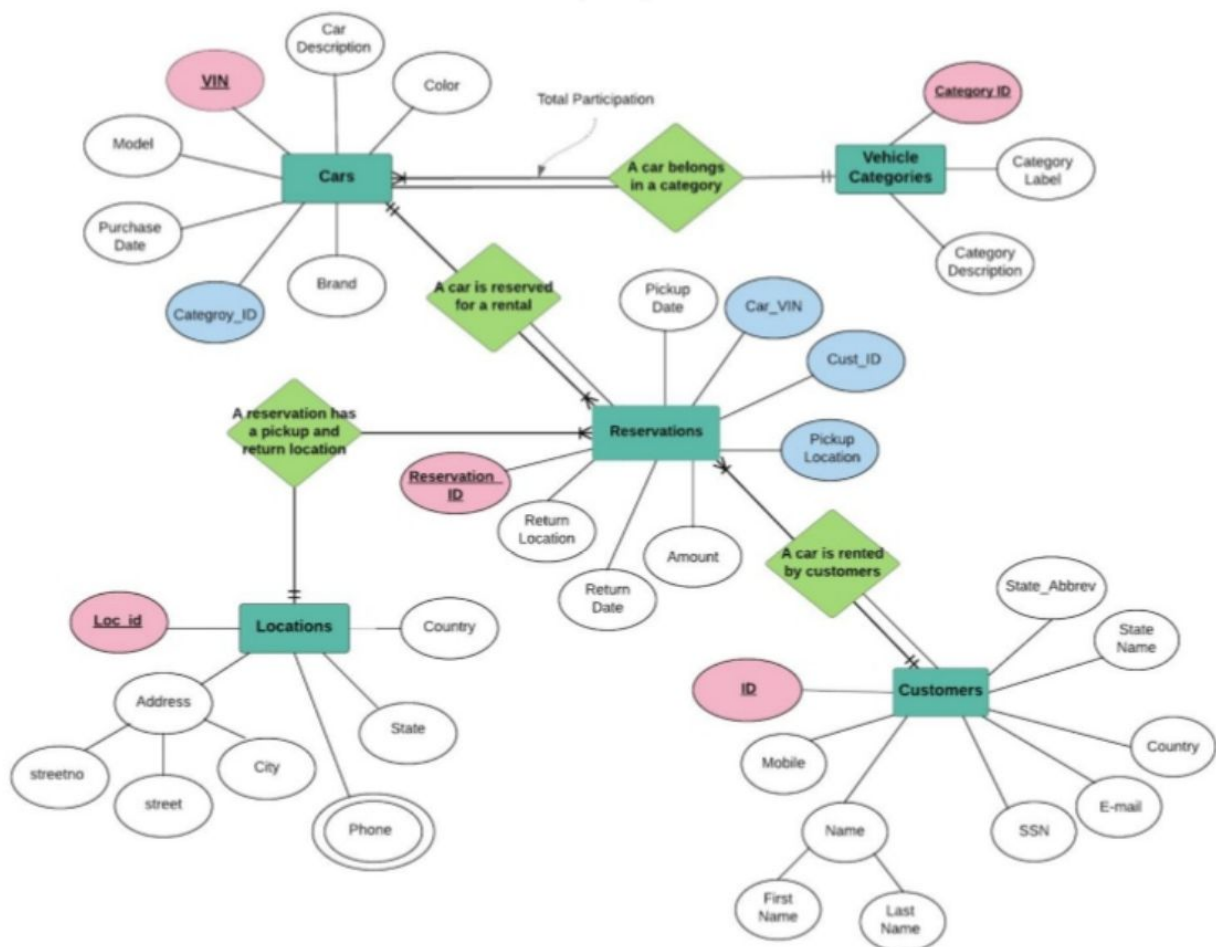


Figure 4.3: ER Diagram

The ER diagram shows all the relationships between entity sets stored in the database. It illustrates the logical structure of the database. It helps to visualize how data is connected in general ways.

4.5 Relational Model

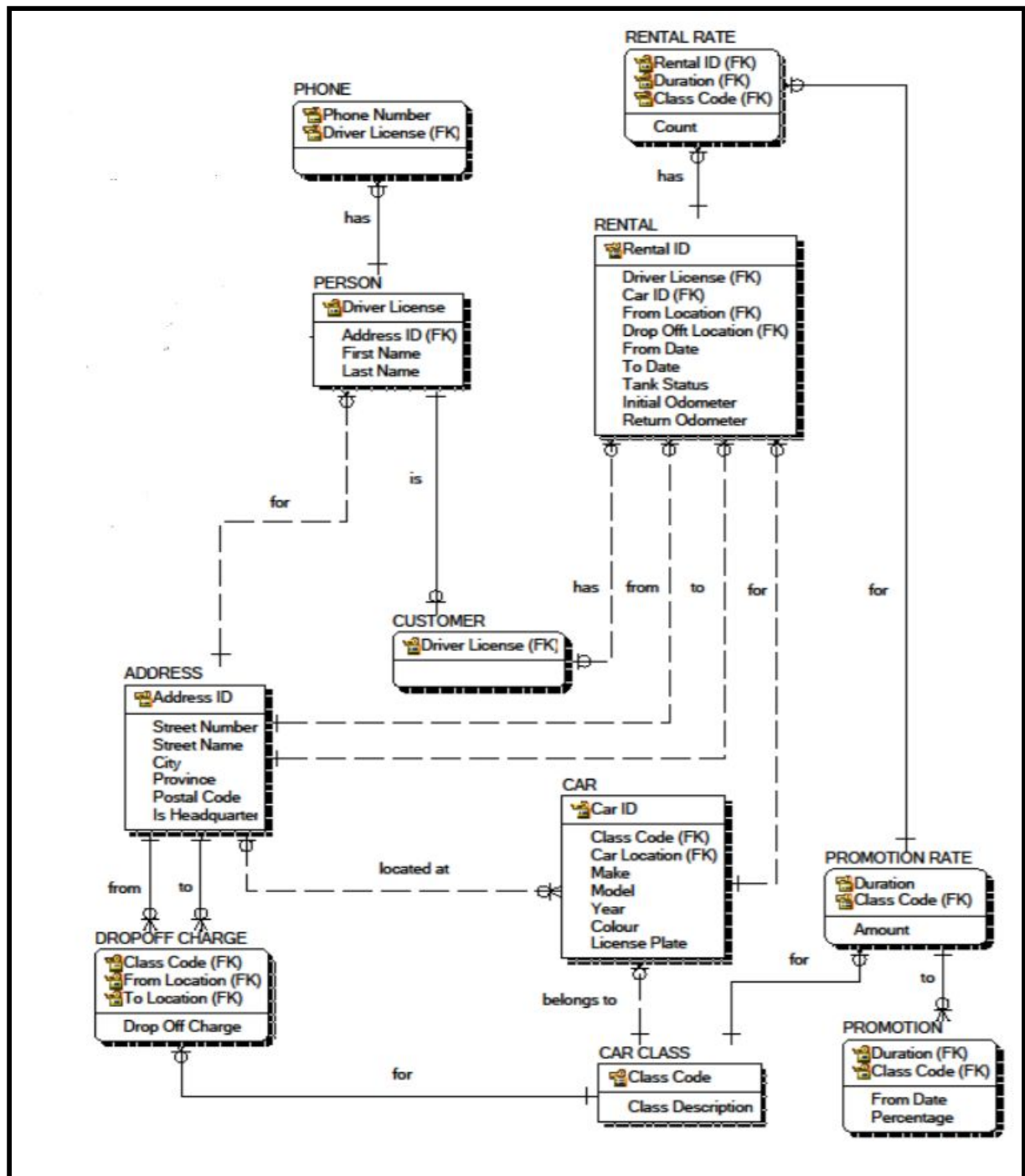


Figure 4.3: Relational Model

4.6 Structure of Tables

--

-- Table structure for table `tblbooking`

--

```
CREATE TABLE `tblbooking` (  
  `id` int(11) NOT NULL,  
  `userEmail` varchar(100) DEFAULT NULL,  
  `VehicleId` int(11) DEFAULT NULL,  
  `FromDate` varchar(20) DEFAULT NULL,  
  `ToDate` varchar(20) DEFAULT NULL,  
  `message` varchar(255) DEFAULT NULL,  
  `Status` int(11) DEFAULT NULL,  
  `PostingDate` timestamp NOT NULL DEFAULT current_timestamp()  
)
```

--

-- Table structure for table `tblbrands`

--

```
CREATE TABLE `tblbrands` (  
  `id` int(11) NOT NULL,  
  `BrandName` varchar(120) NOT NULL,  
  `CreationDate` timestamp NULL DEFAULT current_timestamp(),  
  `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()  
)
```

--

-- Table structure for table `tblcontactusinfo`

--

```

CREATE TABLE `tblcontactusinfo` (
  `id` int(11) NOT NULL,
  `Address` tinytext DEFAULT NULL,
  `EmailId` varchar(255) DEFAULT NULL,
  `ContactNo` char(11) DEFAULT NULL
)

--

-- Table structure for table `tblcontactusquery`
--

CREATE TABLE `tblcontactusquery` (
  `id` int(11) NOT NULL,
  `name` varchar(100) DEFAULT NULL,
  `EmailId` varchar(120) DEFAULT NULL,
  `ContactNumber` char(11) DEFAULT NULL,
  `Message` longtext DEFAULT NULL,
  `PostingDate` timestamp NOT NULL DEFAULT current_timestamp(),
  `status` int(11) DEFAULT NULL
)

--

-- Table structure for table `tblsubscribers`
--

CREATE TABLE `tblsubscribers` (
  `id` int(11) NOT NULL,
  `SubscriberEmail` varchar(120) DEFAULT NULL,
  `PostingDate` timestamp NULL DEFAULT current_timestamp()
)

```

--

-- **Table structure for table `tblusers`**

--

```
CREATE TABLE `tblusers` (  
  `id` int(11) NOT NULL,  
  `FullName` varchar(120) DEFAULT NULL,  
  `EmailId` varchar(100) DEFAULT NULL,  
  `Password` varchar(100) DEFAULT NULL,  
  `ContactNo` char(11) DEFAULT NULL,  
  `dob` varchar(100) DEFAULT NULL,  
  `Address` varchar(255) DEFAULT NULL,  
  `City` varchar(100) DEFAULT NULL,  
  `Country` varchar(100) DEFAULT NULL,  
  `RegDate` timestamp NULL DEFAULT current_timestamp(),  
  `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()  
)
```

--

-- **Table structure for table `tblvehicles`**

--

```
CREATE TABLE `tblvehicles` (  
  `id` int(11) NOT NULL,  
  `VehiclesTitle` varchar(150) DEFAULT NULL,  
  `VehiclesBrand` int(11) DEFAULT NULL,  
  `VehiclesOverview` longtext DEFAULT NULL,  
  `PricePerDay` int(11) DEFAULT NULL,  
  `FuelType` varchar(100) DEFAULT NULL,  
  `ModelYear` int(6) DEFAULT NULL,
```



```
`SeatingCapacity` int(11) DEFAULT NULL,  
`Vimage1` varchar(120) DEFAULT NULL,  
`Vimage2` varchar(120) DEFAULT NULL,  
`Vimage3` varchar(120) DEFAULT NULL,  
`Vimage4` varchar(120) DEFAULT NULL,  
`Vimage5` varchar(120) DEFAULT NULL,  
`AirConditioner` int(11) DEFAULT NULL,  
`PowerDoorLocks` int(11) DEFAULT NULL,  
`AntiLockBrakingSystem` int(11) DEFAULT NULL,  
`BrakeAssist` int(11) DEFAULT NULL,  
`PowerSteering` int(11) DEFAULT NULL,  
`DriverAirbag` int(11) DEFAULT NULL,  
`PassengerAirbag` int(11) DEFAULT NULL,  
`PowerWindows` int(11) DEFAULT NULL,  
`CDPlayer` int(11) DEFAULT NULL,  
`CentralLocking` int(11) DEFAULT NULL,  
`CrashSensor` int(11) DEFAULT NULL,  
`LeatherSeats` int(11) DEFAULT NULL,  
`RegDate` timestamp NOT NULL DEFAULT current_timestamp(),  
`UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()  
)
```

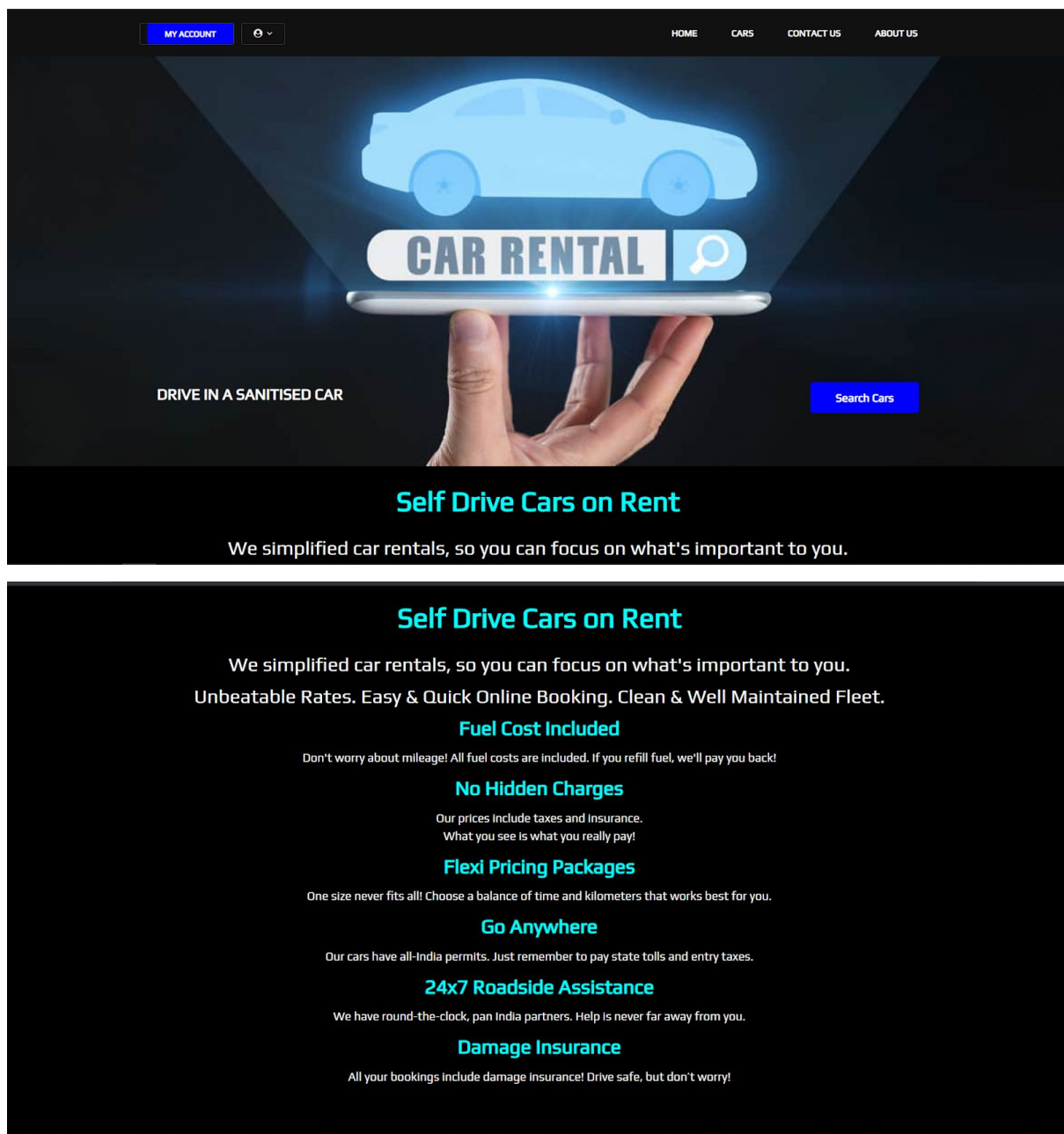
CHAPTER 5

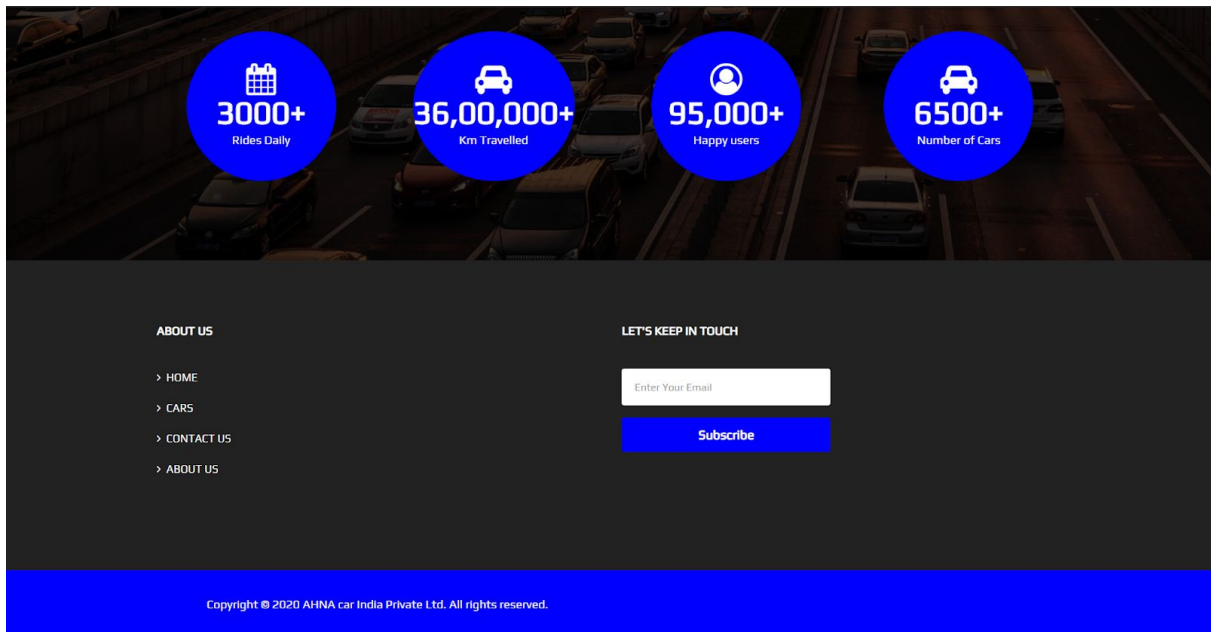
IMPLEMENTATION

5.1 Graphical User Interface

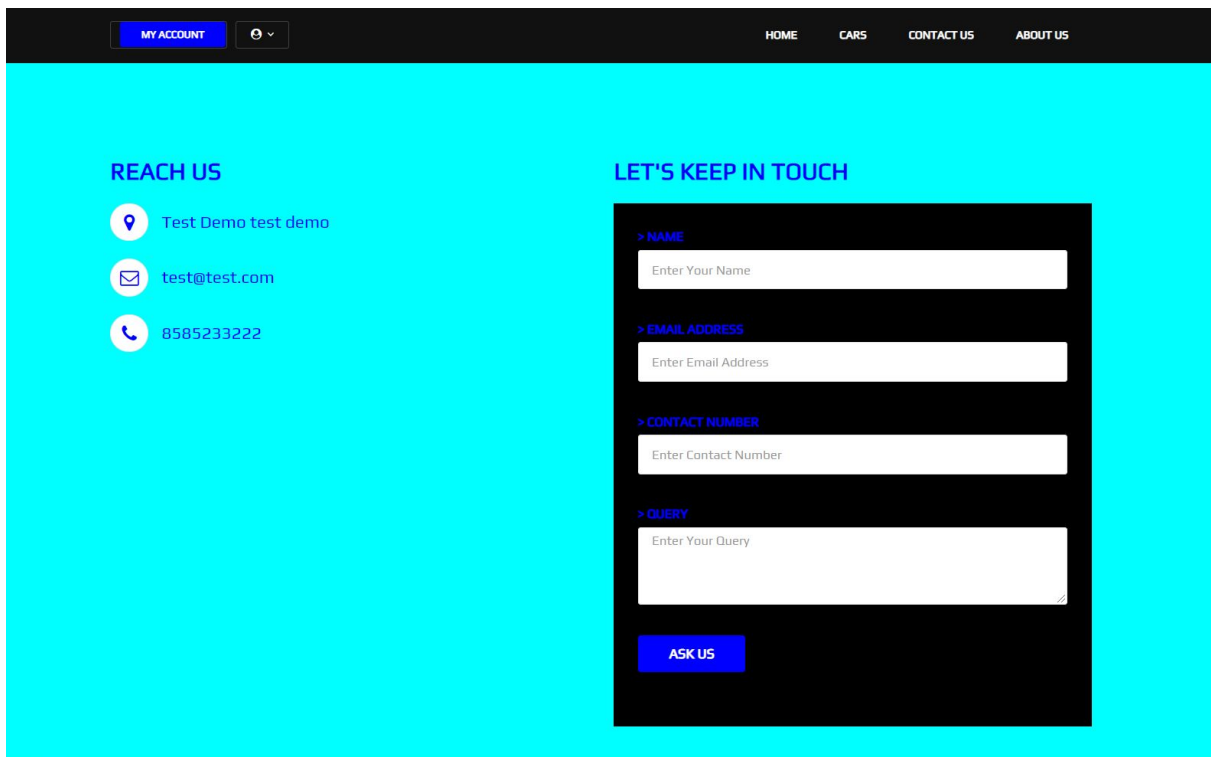
5.1.1 Frontend -

→ HOME





→ CONTACT US



→ CARS

MY ACCOUNT

HOME CARS CONTACT US ABOUT US


> Find Your Car

Select Brand

Select Fuel Type

SEARCH

20 CARS



BMW , Z4


₹450000 Per Day Rental

2 seats

2019 model

Petrol

View Details



BMW , 3 Series


₹599999 Per Day Rental

5 seats

2018 model

Petrol

View Details



Volvo , XC60


₹100955 Per Day Rental

5 seats

2019 model

Diesel

View Details



Audi , Q2


₹96955 Per Day Rental

5 seats

2020 model

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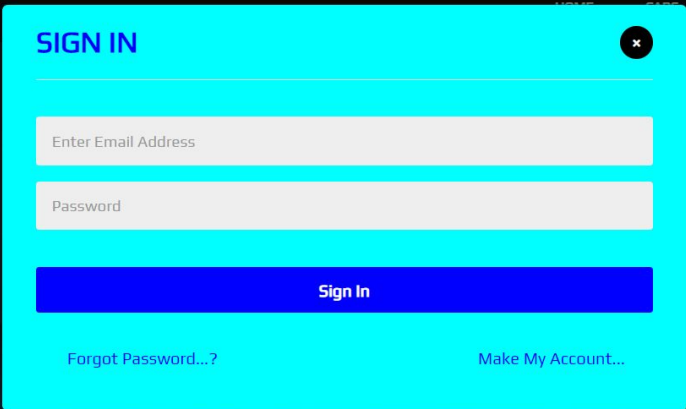
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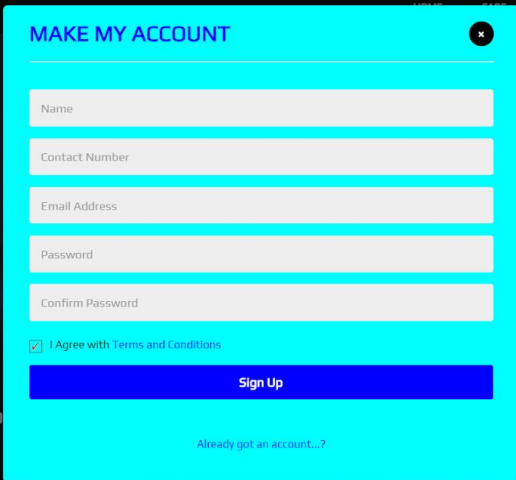
28

→ SIGN IN



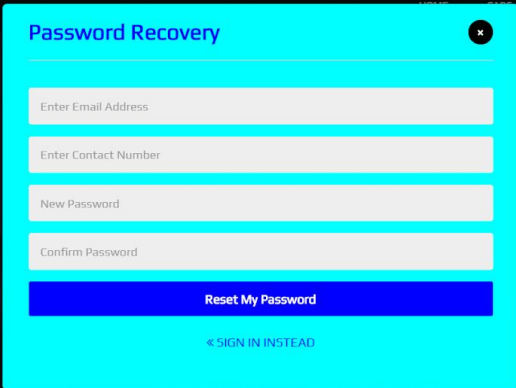
A modal form titled "SIGN IN" with a close button (X) in the top right corner. It features two input fields: "Enter Email Address" and "Password". Below the fields is a blue "Sign In" button. At the bottom, there are two links: "Forgot Password...?" and "Make My Account...".

→ MAKE MY ACCOUNT



A modal form titled "MAKE MY ACCOUNT" with a close button (X) in the top right corner. It contains five input fields: "Name", "Contact Number", "Email Address", "Password", and "Confirm Password". Below the fields is a checkbox labeled "I Agree with Terms and Conditions". A blue "Sign Up" button is positioned below the checkbox. At the bottom, there is a link: "Already got an account...?".




→ PASSWORD RECOVERY





A modal form titled "Password Recovery" with a close button (X) in the top right corner. It includes four input fields: "Enter Email Address", "Enter Contact Number", "New Password", and "Confirm Password". A blue "Reset My Password" button is located below the fields. At the bottom, there is a link: "«SIGN IN INSTEAD".


→ CAR BOOKING

Welcome To AHNA Car Rental Services
AMEY
HOME
CARS
CONTACT US
ABOUT US



2019
Reg. Year



Petrol
Fuel Type



2
Seats

> Book Now

Date(DD/MM/YYYY) From...?


2019
Reg. Year


Petrol
Fuel Type


2
Seats

> Book Now

Date(DD/MM/YYYY) From...?

Date(DD/MM/YYYY) To...?


Extra Requirements...

Book Now

Vehicle Overview
Accessories

The design of the BMW Z4 Roadster. Views of open-air driving pleasure, more breathtaking with every detail. The exterior shows the individual style of the BMW Z4 Roadster in its purest form: clear, modern and emotionally charged.

SIMILAR CARS




BMW , Z4

₹450000

2 seats

2019 model

Petrol



BMW , 3 Series

₹599999


5 seats

2018 model

Petrol

→ PROFILE SETTINGS

MY PROFILE



AMEY

Profile Settings

Update Password

My Booking

Sign Out

MY PROFILE

REGISTRATION DATE → 2020-11-25 19:34:16

• NAME

AMEY

• EMAIL ADDRESS

amey@amey.com

• CONTACT NUMBER

1234567890

• DATE OF BIRTH

DD/MM/YYYY

• RESIDENTIAL ADDRESS

Enter your address

• COUNTRY

Country


• CITY

City

UPDATE MY PROFILE

→ UPDATE PASSWORD

UPDATE PASSWORD

**AMEY**

Profile Settings
Update Password
My Booking
Sign Out

MY PASSWORD

> CURRENT PASSWORD

Current Password

> NEW PASSWORD

New Password

> CONFIRM NEW PASSWORD

Confirm New Password

UPDATE


→ MY BOOKING

Welcome To AHNA Car Rental Services

AMEY


HOME CARS CONTACT US ABOUT US

MY BOOKING

**AMEY**

Profile Settings
Update Password
My Booking
Sign Out

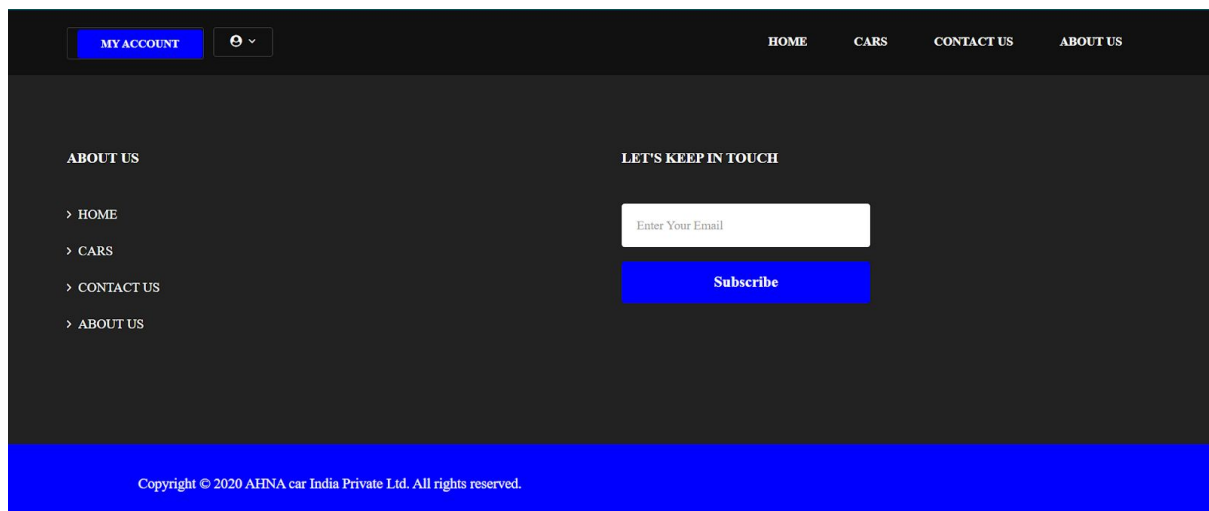
MY BOOKING



BMW , Z4
From Date: 26/11/2020
To Date: 27/11/2020

Not Confirmed
Message: -

→ ABOUT US



5.1.2 Backend -

→ Structure (8bttables) -

| Table | Action | Rows | Type | Collation | Size | Overhead |
|--|---|-----------|---------------|---------------------------|------------------|------------|
| <input type="checkbox"/> admin | ★ Browse Structure Search Insert Empty Drop | 1 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblbooking | ★ Browse Structure Search Insert Empty Drop | 3 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblbrands | ★ Browse Structure Search Insert Empty Drop | 10 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblcontactusinfo | ★ Browse Structure Search Insert Empty Drop | 1 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblcontactusquery | ★ Browse Structure Search Insert Empty Drop | 1 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblsubscribers | ★ Browse Structure Search Insert Empty Drop | 1 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblusers | ★ Browse Structure Search Insert Empty Drop | 4 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| <input type="checkbox"/> tblvehicles | ★ Browse Structure Search Insert Empty Drop | 20 | InnoDB | latin1_swedish_ci | 16.0 KiB | - |
| 8 tables | Sum | 41 | InnoDB | utf8mb4_general_ci | 128.0 KiB | 0 B |

5.2 Database Connectivity

Create Database Connection File In PHP

Create a new PHP file and name it db_connection.php and save it. Why am I creating a separate database connection file? Because if you have created multiple files in which you want to insert data or select data from the databases, you don't need to write the code for database connection every time. You just have to include it by using PHP custom function include (include 'connection.php') on the top of your code and call its function and use it. It also helps when you are moving your project location from one PC to another and you have to change the values on the single file and all the changes will be applied to all the other files automatically. Write the following code in your db_connection file.

```
1. <?php
2.
3. function OpenCon()
4. {
5. $dbhost = "localhost";
6. $dbuser = "root";
7. $dbpass = "1234";
8. $db = "example";
9.
10.
11.$conn = new mysqli($dbhost, $dbuser, $dbpass,$db) or die("Connect failed:
    %s\n". $conn -> error);
12.
13.
14.return $conn;
15.}
16.
17.function CloseCon($conn)
18.{
19.$conn -> close();
20.}
21.
22.?>
```

Here is the explanation of the variable that we have used in our db_connection file:

1. \$dbhost will be the host where your server is running; it is usually localhost.
2. \$dbuser will be the username i.e. root and \$dbpass will be the password which is the same that you used to access your PHPMysqlAdmin.
3. \$dbname will be the name of your database which we have created in this tutorial.

Create a new PHP file to check your database connection

Create a new PHP file to connect to your database. Name it index.php and add this code in this file.

1. <?php
2. include 'db_connection.php';
- 3.
4. \$conn = OpenCon();
- 5.
6. echo "Connected Successfully";
- 7.
8. CloseCon(\$conn);
- 9.
10. ?>

Run it:

Now open your browser and goto localhost/practice/index.php and you should see this screen:



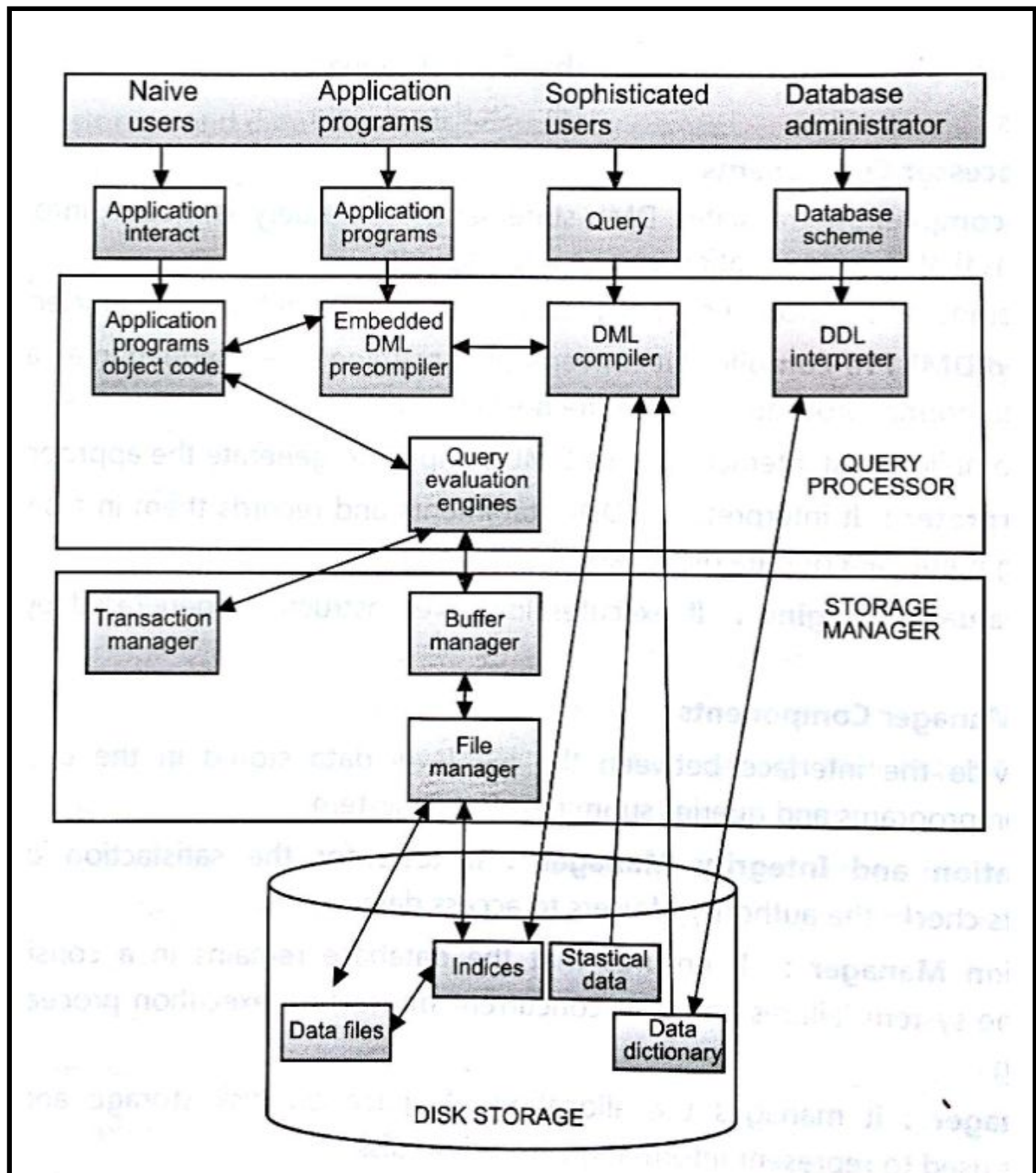
Confirmation Message

Congratulations! You've successfully connected your database with your localhost! If you are not able to see this screen, then check if you have done everything right in your db_connection.php file.

CHAPTER 6

APPLICATION

6.1 Database Management Structure



6.1: Database Management Structure

6.2 Applications

- **Railway Reservation System:** Database is required to keep record of ticket booking, train's departure and arrival status. Also if trains get late then people get to know it through database updates.
- **Library Management System:** There are thousands of books in the library so it is very difficult to keep a record of all the books in a copy or register. So DBMS used to maintain all the information related to book issue dates, name of the book, author and availability of the book.
- **Banking:** We make thousands of transactions through banks daily and we can do this without going to the bank. So how banking has become so easy that by sitting at home we can send or get money through banks. That is all possible just because of DBMS that manages all the bank transactions.
- **Credit card transactions:** For purchase of credit cards and all the other transactions are made possible only by DBMS. A credit card holder knows the importance of their information that all are secured through DBMS.
- **Social Media Sites:** We all are on social media websites to share our views and connect with our friends. Daily millions of users signed up for these social media accounts like facebook, twitter, pinterest and Google plus. But how all the information of users are stored and how we become able to connect to other people, yes this all because DBMS.
- **Telecommunications:** Any telecommunication company cannot even think about their business without DBMS. DBMS is must for these companies to store the call details and monthly post paid bills.
- **Finance:** Those days have gone far when information related to money was stored in registers and files. Today the time has totally changed because there are lots of things to do with finance like storing sales, holding information and finance statement management etc.
- **Military:** Military keeps records of millions of soldiers and it has millions of files that should be kept secured and safe. As DBMS provides a big security assurance to the military information so it is widely used in militaries. One can easily search for all the information about anyone within seconds with the help of DBMS.
- **Online Shopping:** Online shopping has become a big trend these days. No one wants to go to shops and waste his time. Everyone wants to shop from

home. So all these products are added and sold only with the help of DBMS. Purchase information, invoice bills and payment, all of these are done with the help of DBMS.

- **Human Resource Management:** Big firms have many workers working under them. Human resource management department keeps records of each employee's salary, tax and work through DBMS.
- **Manufacturing:** Manufacturing companies make products and sell them on a daily basis. To keep records of all the details about the products like quantity, bills, purchase, supply chain management, DBMS is used.
- **Airline Reservation system:** Same as railway reservation system, the airline also needs DBMS to keep records of flights arrival, departure and delay status.

CHAPTER 7

CONCLUSION

Car rental business has emerged with 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 the internet. Nowadays, customers can reserve cars online, rent cars online, and have the car brought to their doorstep once the customer is a registered member or go to the office to pick the car.

During the course of this project, we learnt a lot of the work and best practices that go into creating a database, the rules to construct a good ER diagram, How to come up with relational schema mapping from the ER diagram, deriving the functional dependencies and how to normalize the relational schema. We learnt on how to design a system from Database perspective and how to efficiently store and manipulate data.

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

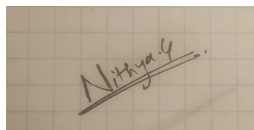
1. Software Engineering - R. S. Pressman
2. PHP for Dummies
3. PHP Beginners Guide By McGrawhill Publication
4. Javascript By McGrawhill Publication
5. <https://www.zoomcar.com/bangalore/>
6. <https://www.avis.co.in/car-rental-bengaluru>
7. <https://drivezy.com/Bengaluru>
8. <https://www.olacabs.com/rentals>
9. <https://www.w3schools.com/>
10. Sublime Text
11. Atom
12. XAMPP

Repository

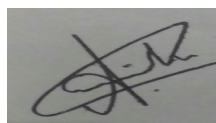
<https://github.com/Amey-Thakur/Car-Rental-System>

The project has done by -

**Terna Engineering College
TE COMPS B - 42, 45, 50, 51**



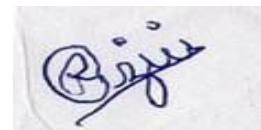
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