PROJECT REPORT ON

Rapid Drives

Online Car Rental System

USING

JSP(Java), HTML, CSS, JS & MYSQL

Preface

It is with great pleasure and enthusiasm that we present this project report, titled Rapid Drives, as part of our academic endeavor in the Bachelor of Computer Applications (BCA) program at **Saurashtra University**.

This project represents the culmination of our learning journey throughout our tenure in the **TYBCA** (Third Year Bachelor of Computer Applications) program. It embodies the knowledge, skills, and experiences gained during our academic pursuits, as well as our passion for exploring and implementing innovative solutions in the field of computer applications.

This report provides a comprehensive overview of the project, including its background, objectives, methodology, implementation details, results, and conclusions. It also reflects upon the challenges encountered during the project lifecycle and the strategies employed to overcome them.

We would also like to express our gratitude to our peers and colleagues for their collaboration and constructive feedback, which have enriched our learning experience and contributed to the success of this project.

Lastly, we would like to thank the administration of Saurashtra University for providing us with the necessary resources and infrastructure to pursue our academic endeavors.

- Ibrahim Garana

TYBCA

Bosamiya College - Jetpur

Saurashtra University

Acknowledgement

At this Moment, First and foremost we would like to thank the Respected Head of our Department BCA, **Prof. Sachin Dave** and Our Respected Guide **Prof. Nitin Chudasama** who gave me Opportunity to do this Project work under their Guidance.

Also I Wish to Thank my Parents for Made me Capable for Creating This Project, I appreciate every bit of encouragement all gave me to make this project. Finally I wish to thank God for helping us throughout the completion of our project.

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Introduction

In today's fast-paced digital world, the internet has revolutionized various aspects of our lives, including the way we access information, communicate with others, and conduct business. One of the significant transformations brought about by the digital era is the rise of online platforms and websites, which have become integral tools for connecting businesses with consumers and facilitating seamless transactions.

The Advantage of online car rental services has significantly transformed the way individuals access and utilize Transportation services. Online car rental platforms, such as '**Rapid Drives**,' have emerged as convenient and efficient solutions for individuals seeking flexible and hassle-free transportation options.

In **Rapid Drives** you will find Simple UI and Controls, Every user can interact with this site Without any Stress or Confusion. Only User need His User ID and can Book/Rent Any Car by Click with just One Button. This Action Send a Record to Team and one responsible team member Review that Request and Contact to Customer through Call and make Deal.

So Basically there is no Online Payment System in Website, User had to Only Select the Car, all the Operations have to Performed by Team.

That’s why I am Saying **Rapid Drives** is Simple and Hassle Free Concept.

In conclusion, **Rapid Drives** and similar online car rental platforms represent the epitome of innovation in the transportation industry, leveraging the power of the digital world to offer convenient, efficient, and customer-centric solutions for individuals seeking reliable transportation services. As we continue to embrace the digital age, online car rental services are poised to play an increasingly significant role in shaping the future of transportation and travel.

Project Profile

Project Title	-	Rapid Drives
Platform	-	Windows
Front End	-	Html, CSS, JS
Back End	-	JSP (Java) & MySQL
Project Guide	-	Prof. Nitin Chudasama
Developed By	-	Ibrahim Garana
Submission Date	-	28/02/2024
Submitted To	-	Shree G.K & C.K. Bosamiya College, Jetpur

System Development Life Cycle

SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.

The following figure is a graphical representation of the various stages of a typical SDLC.

Planning and Requirement Analysis:

Requirement analysis is the most important and fundamental stage in SDLC. It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry. This information is then used to plan the basic project approach and to conduct product feasibility study in the economical, operational and technical areas.

Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibility study is to define the various technical approaches that can be followed to implement the project successfully with minimum risks.

Defining Requirements:

Once the requirement analysis is done the next step is to clearly define and document the product requirements and get them approved from the customer or the market analysts. This is done through an SRS (Software Requirement Specification) document which consists of all the product requirements to be designed and developed during the project life cycle.

Designing the Product Architecture:

SRS is the reference for product architects to come out with the best architecture for the product to be developed. Based on the requirements specified in SRS, usually more than one design approach for the product architecture is proposed and documented in a DDS - Design Document Specification.

This DDS is reviewed by all the important stakeholders and based on various parameters as risk assessment, product robustness, design modularity, budget and time constraints, the best design approach is selected for the product.

A design approach clearly defines all the architectural modules of the product along with its communication and data flow representation with the external and third party modules (if any). The internal design of all the modules of the proposed architecture should be clearly defined with the minutest of the details in DDS.

Building or Developing the Product:

In this stage of SDLC the actual development starts and the product is built. The programming code is generated as per DDS during this stage. If the design is performed in a detailed and organized manner, code generation can be accomplished without much hassle.

Developers must follow the coding guidelines defined by their organization and programming tools like compilers, interpreters, debuggers, etc. are used to generate the code. Different high level programming languages such as C, C++, Pascal, Java and PHP are used for coding. The programming language is chosen with respect to the type of software being developed.

Testing:

This stage is usually a subset of all the stages as in the modern SDLC models, the testing activities are mostly involved in all the stages of SDLC. However, this stage refers to the testing only stage of the product where product defects are reported, tracked, fixed and retested, until the product reaches the quality standards defined in the SRS.

Deployment:

Once the product is tested and ready to be deployed it is released formally in the appropriate market. Sometimes product deployment happens in stages as per the business strategy of that organization. The product may first be released in a limited segment and tested in the real business environment (UATUser acceptance testing).

Then based on the feedback, the product may be released as it is or with suggested enhancements in the targeting market segment. After the product is released in the market, its maintenance is done for the existing customer base.

Analysis Requirements

In any organization, every new product or service is created in response to a business need. However, despite spending tremendous time and resources on development, there can be a mismatch between the required product and the final product. Hence, there is a need for a focused and detailed requirements analysis in the early stages of any project to avoid major problems in the future.

Requirements analysis or requirements engineering is a process used to determine the needs and expectations of a new product. It involves frequent communication with the StackHolders and end-users of the product to define expectations, resolve conflicts, and document all the key requirements.

One of the greatest challenges faced by any organization is to share the vision of the final product with the customers. Hence, a business requirements analysis involves a team effort of all the key stakeholders, software developers, end-users, and customer managers to achieve a shared understanding of what the product should do. This is always done in the early phase of any project to ensure that the final product conforms to all the requirements.

Feasibility Study

A Feasibility study is a detailed analysis that considers all of the critical aspects of a proposed project in order to determine the likelihood of it succeeding.

Success in business may be defined primarily by return on investment, meaning that the project will generate enough profit to justify the investment. However, many other important factors may be identified on the plus or minus side, such as community reaction and environmental impact.

Although feasibility studies can help project managers determine the risk and return of pursuing a plan of action, several steps should be considered before moving forward.

Understanding a Feasibility Study –

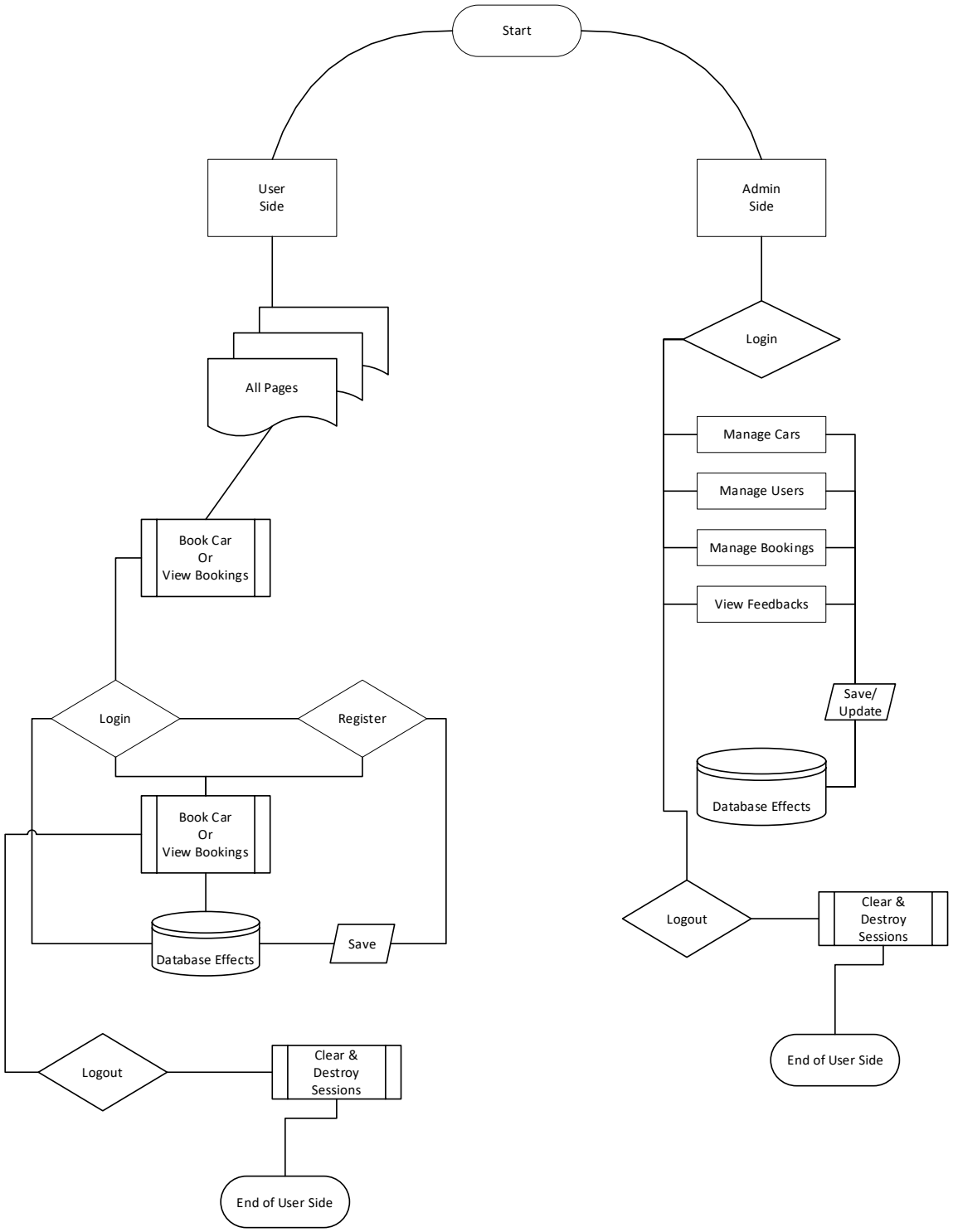
A Feasibility study is an assessment of the practicality of a proposed plan or project. A feasibility study analyzes the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise while pursuing the project.

Hardware & Software

During system development, i have to design both static and dynamic website interfaces, create website functions and a database system, edit photos and pictures, so its has a set of software and hardware requirements.

Used Hardware	Used Softwares
CPU - Acer	Eclipse IDE
Intel Core i5 Processor	Firefox Browser
10 GB RAM	Wamp MySQL Database
500 GB SSD	Photoshop

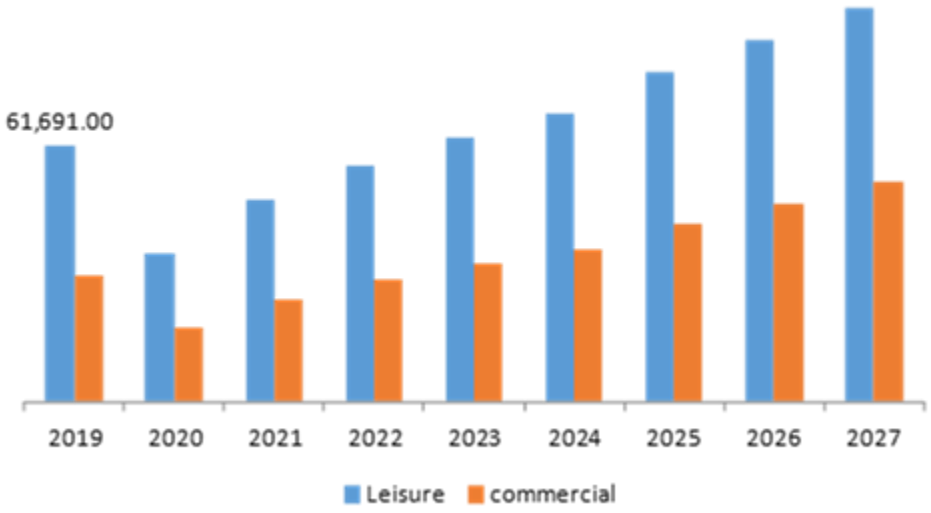
Flow Chart


Start
User Side
Admin Side
All Pages
Login
Manage Cars
Manage Users
Manage Bookings
View Feedbacks
Book Car Or View Bookings
Save/ Update
Login
Register
Database Effects
Book Car Or View Bookings
Logout
Clear & Destroy Sessions
Database Effects
Save
Logout
Clear & Destroy Sessions
End of User Side
End of User Side

Bar Chart

A collection of colorful bar charts ideal for depicting ecommerce and social networking data. The high quality graphics and themed icons are just what you need to create a professional presentation. You can customize each chart and shape to suit the needs of your presentation.

Our Website is not Available on Internet, So we can't create bar chart. And it Looks like this –



Time Line

No.	Project Task	No. of Days	Starting Date	Ending Date
1.	Requirement Gathering	6	16-Dec-23	21-Dec-23
2.	Requirement Analysis	6	22-Dec-23	27-Dec-23
3.	Feasibility Study	6	28-Dec-23	02-Jan-23
4.	Data Information	4	03-Jan-23	06-Jan-23
5.	Data Structure	8	07-Jan-23	14-Jan-23
6.	Data Flow Diagram: Admin & Client	5	15-Jan-23	19-Jan-23
7.	Designing: Admin & Client	5	20-Jan-23	24-Jan-23
8.	Coding	23	25-Jan-23	16-Feb-24
9.	Error & Solution	4	17-Feb-24	20-Feb-24
10.	Testing	3	21-Feb-24	23-Feb-24
11.	Implementation	2	24-Feb-24	25-Feb-24
12.	Limitation	2	26-Feb-24	27-Feb-24
13.	Conclusion	1	28-Feb-24	28-Feb-24

Gantt Chart

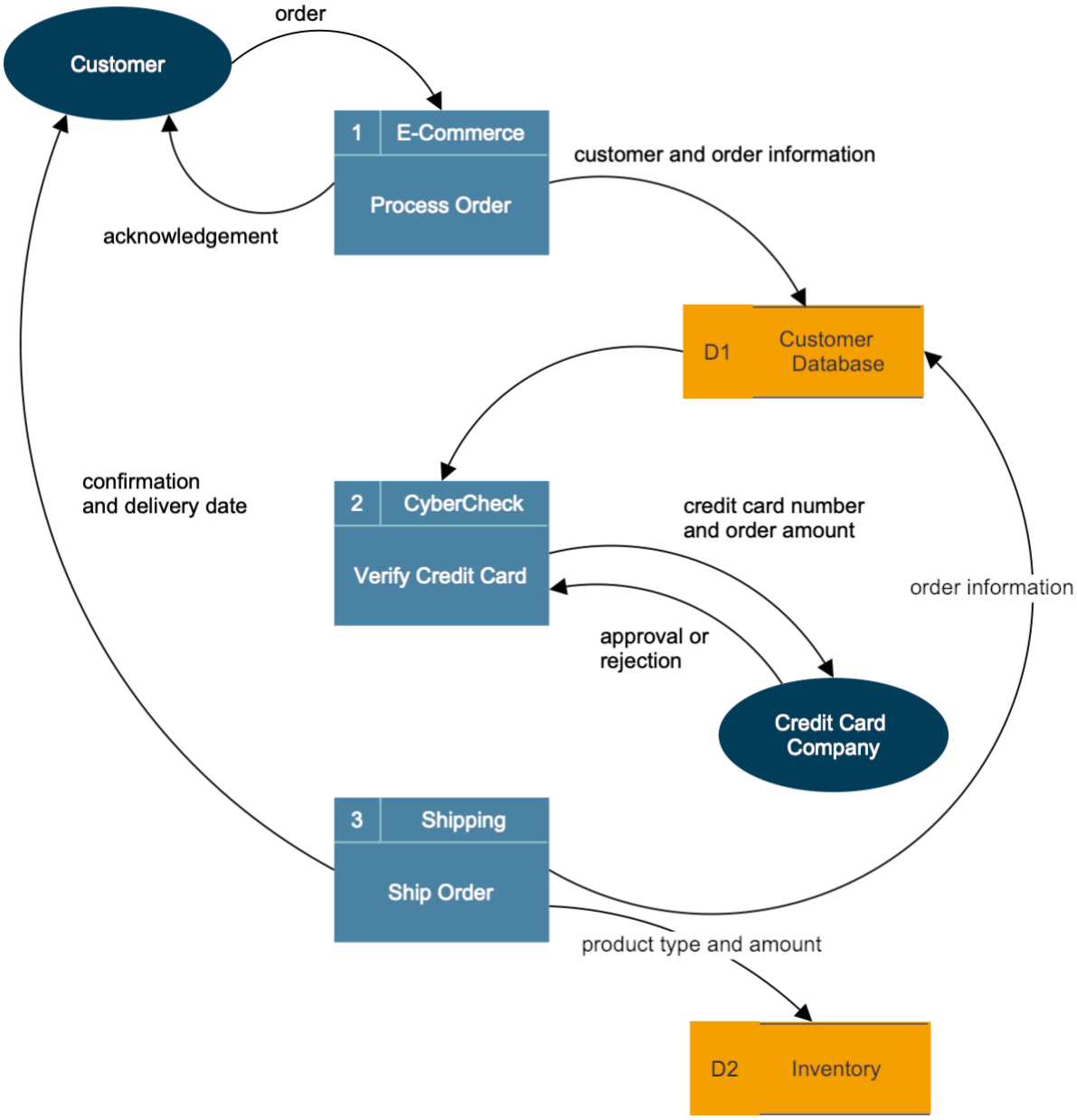
16-Dec to 06-Jan	07-Jan to 19-Jan	20-Jan to 24-Jan	25-Jan to 27-Jan	28-Jan to 14-Feb	15-Feb to 17-Feb	18-Feb to 20-Feb	28-Feb
Information Gathering							
	Planning (Roughwork)						
		Designing					
			Database Making				
				Coding			
					Validations		
						Testing	
							Submit

Data Flow Diagram

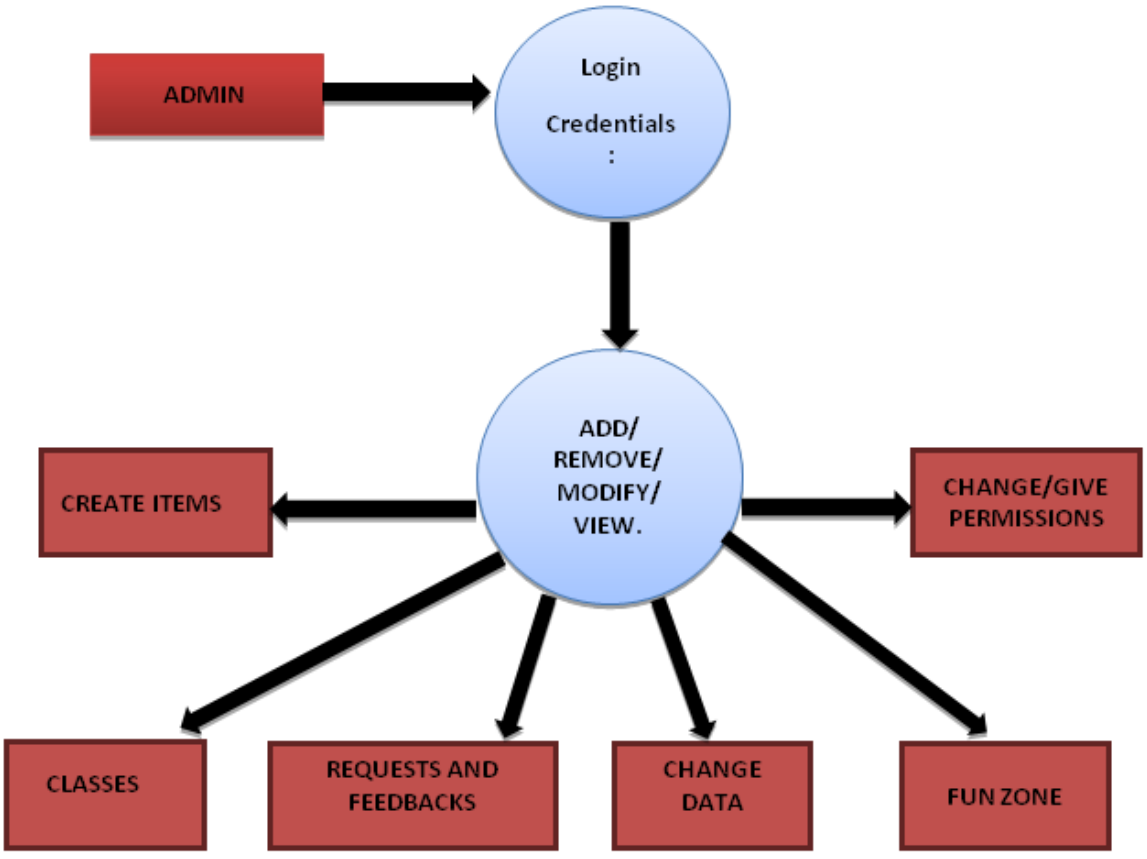
A data flow diagram is a graphical view of how data is processed in a system in terms of input and output. The Data flow diagram (DFD) contains some symbol for drawing the data.

	dataflow	Arrows showing direction of flow
	process	circles
	file	horizontal pair of lines
	data-source, sink	rectangular box

User Side Data Flow Diagram :

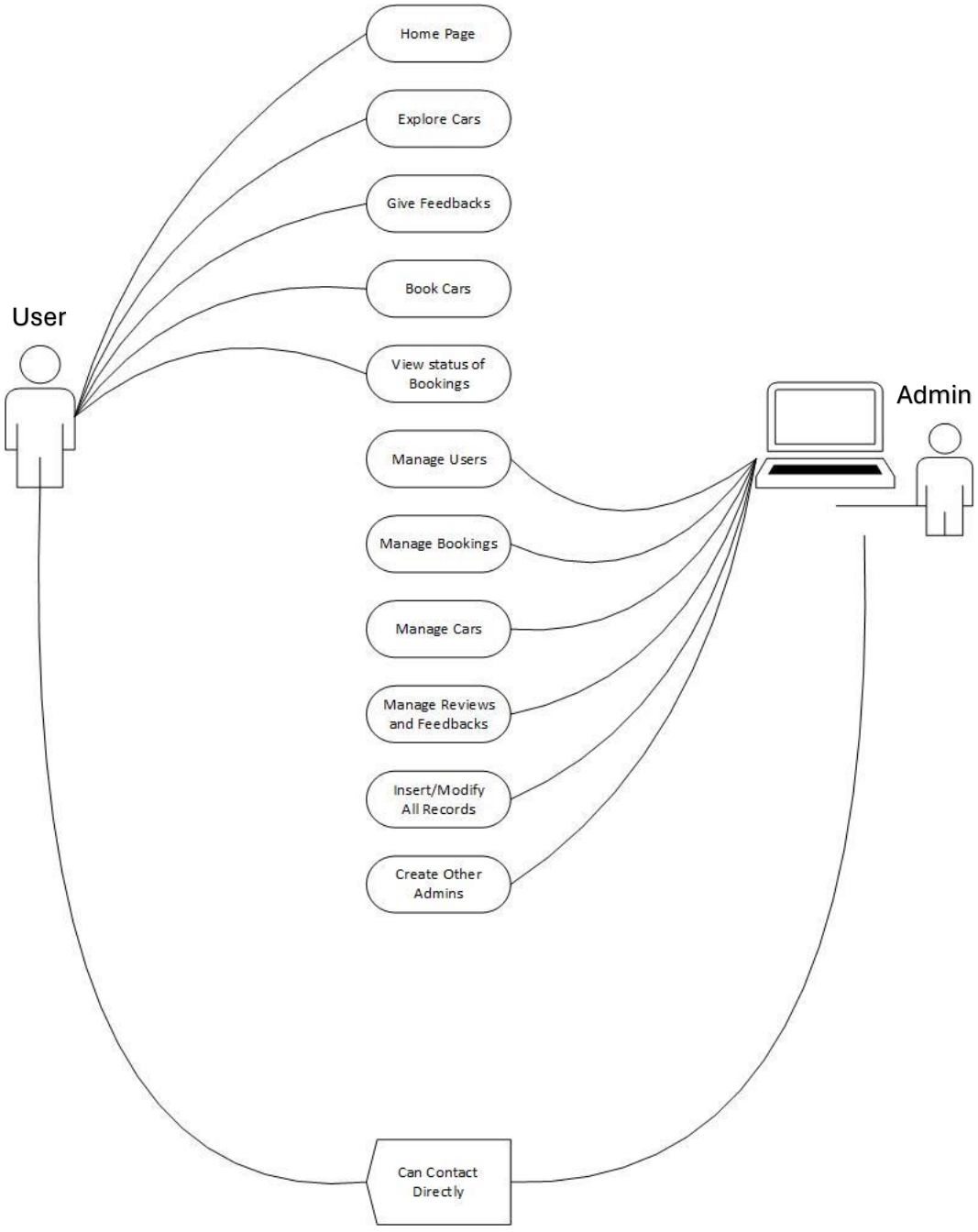


Admin Side Data Flow Diagram :



Use Case Diagram

The use case diagram are usually referred to as behavior diagram used to describe the actions of all user in a system.



Data Structure

Databases are vital tools for storing, managing, and retrieving information. They are also critical for building an e-commerce system. A well-structured database powers e-commerce and manages all the interactions within the system.

The main consideration when designing the database is identifying the functionalities offered by the e-commerce platform. These functionalities can be further divided into core functions and additional functions.

Core functions are the functions necessary for facilitating the day-to-day operations of the e-commerce platform, including user management, product and inventory management, shopping cart function, payment management, and shipping/logistics management.

Additional functions are the nice-to-have functions for the e-commerce platform that enhance the user experience for both end-users (customers) and administrators (the business). Additional functions include marketing functions, help desk and support, advanced analytics, and third-party integrations.

I Used Wamp Server's MySQL Server for Manage Database and Tables.

There Following Data Tables for Store Data –

Admin Table -

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**id** 🔑	int(11)			No	*None*		AUTO_INCREMENT
2	**email**	varchar(50)	latin1_swedish_ci		No	*None*		
3	**full_name**	varchar(50)	latin1_swedish_ci		No	admin		
4	**phone**	varchar(10)	latin1_swedish_ci		No	*None*		
5	**password**	varchar(50)	latin1_swedish_ci		No	*None*		

User Table –

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**id** 🔑	int(11)			No	*None*		AUTO_INCREMENT
2	**fnm**	varchar(50)	latin1_swedish_ci		No	*None*		
3	**lnm**	varchar(50)	latin1_swedish_ci		No	*None*		
4	**email**	varchar(50)	latin1_swedish_ci		No	*None*		
5	**ph**	varchar(10)	latin1_swedish_ci		No	*None*		
6	**lcno**	varchar(20)	latin1_swedish_ci		No	*None*		
7	**gen**	varchar(6)	latin1_swedish_ci		No	*None*		
8	**pw**	varchar(50)	latin1_swedish_ci		No	*None*		

Cars Table –

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**id** 🔑	int(11)			No	*None*		AUTO_INCREMENT
2	**name**	varchar(50)	latin1_swedish_ci		No	*None*		
3	**fuel**	varchar(10)	latin1_swedish_ci		No	*None*		
4	**capacity**	int(5)			No	*None*		
5	**rent**	int(10)			No	*None*		
6	**available**	varchar(10)	latin1_swedish_ci		No	YES		
7	**image**	varchar(50)	latin1_swedish_ci		No	*None*		

Bookings Table –

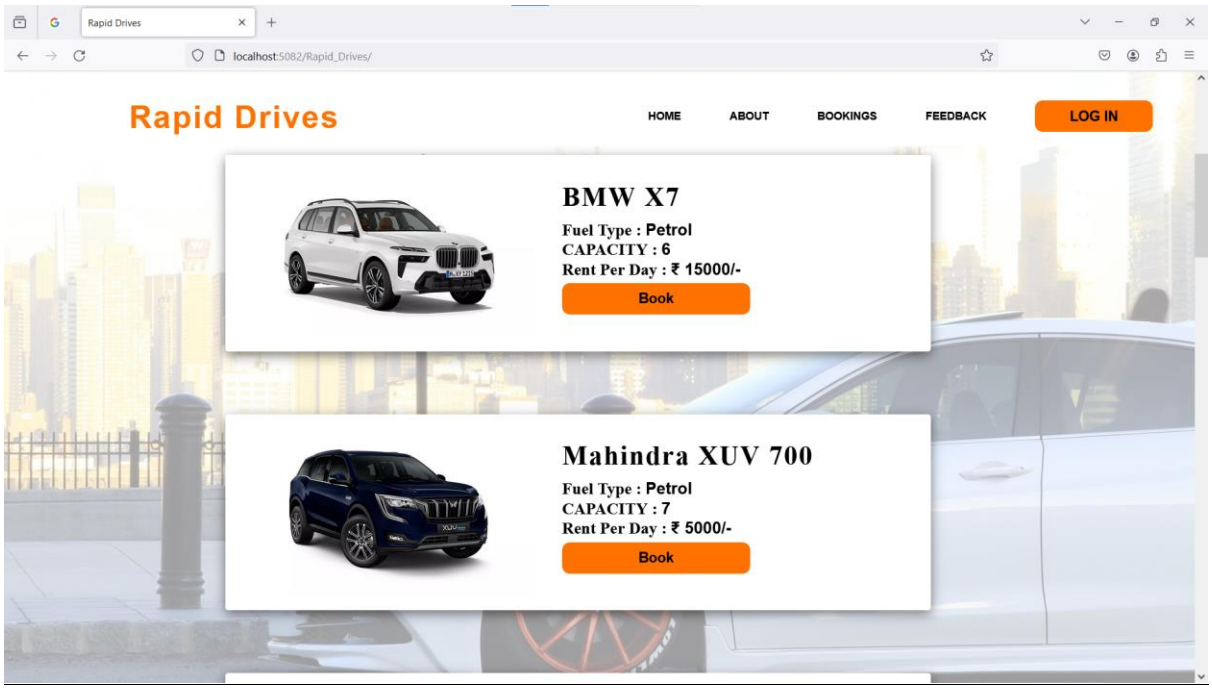
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**book_id** 🔑	int(11)			No	*None*		AUTO_INCREMENT
2	**full_name**	varchar(50)	latin1_swedish_ci		No	*None*		
3	**phone**	varchar(10)	latin1_swedish_ci		No	*None*		
4	**email**	varchar(50)	latin1_swedish_ci		No	*None*		
5	**lcno**	varchar(20)	latin1_swedish_ci		No	*None*		
6	**place**	varchar(50)	latin1_swedish_ci		No	*None*		
7	**car_name**	varchar(50)	latin1_swedish_ci		No	*None*		
8	**rent**	int(10)			No	*None*		
9	**date**	date			No	*None*		
10	**days**	int(10)			No	*None*		
11	**status**	varchar(50)	latin1_swedish_ci		No	Proccessing		

Feedbacks Table –

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**name**	varchar(50)	latin1_swedish_ci		No	*None*		
2	**email**	varchar(50)	latin1_swedish_ci		No	*None*		
3	**resp**	varchar(10)	latin1_swedish_ci		No	*None*		
4	**comment**	text	latin1_swedish_ci		No	*None*		

Screen Layout and Body

This is First Page of Rapid Drives (index.jsp) –



Coding –

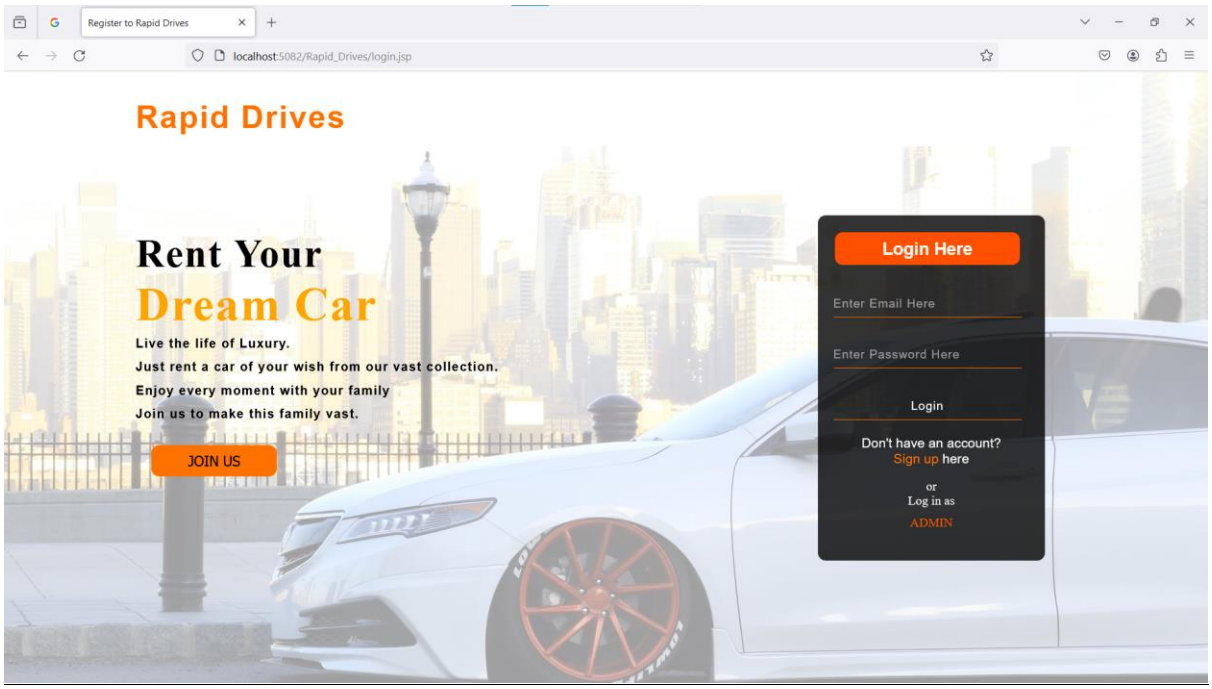
```
<%@ include file="header.jsp" %>
<%@ include file="connection.jsp" %>

<link  rel="stylesheet" href="CSS/car-list.css">
<div class="cd">
    <div class="main">
      <div><h1 class="overview">OUR AVAILABLE CARS FOR RENT</h1>
    <ul class="de">
    <%
     ResultSet rs;
          Statement st;
```

```
try {
        st = con.createStatement();
        rs = st.executeQuery("SELECT *FROM cars");

        while (rs.next()) {
                if(rs.getString("available").equals("YES")) {
     %>

    <li>
    <form method="POST">
    <div class="box">
       <div class="imgBx">
            <img src="<% out.print(rs.getString("image")); %>">
        </div>
        <div class="content">
            <h1><% out.print(rs.getString("name")); %></h1>
            <h2>Fuel Type : <a><% out.print(rs.getString("fuel"));
%></a> </h2>
            <h2>CAPACITY : <a><% out.print(rs.getInt("capacity"));
%></a> </h2>
            <h2>Rent Per Day : <a>&#8377; <%
out.print(rs.getInt("rent")); %>/-</a></h2>
            <button type="submit"  name="booknow" class="utton"
style="margin-top: 5px;"><a href="book.jsp?id=<%
out.print(rs.getInt("id")); %>">Book</a></button>
        </div>
    </div></form></li>

  <% }}
    } catch (SQLException e) {
          e.printStackTrace();
    }
     %>

    </ul>
    </div>
  </div>
  </div>

<%@ include file="footer.jsp" %>
```

Code of header.jsp –

```
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<head>
    <title>Rapid Drives</title>
    <link  rel="stylesheet" href="CSS/style.css">

</head>
<body>
    <div class="hai">
        <div class="navbar">
            <div class="icon">
                <a href="home.jsp"><h2 class="logo">Rapid
Drives</h2></a>
            </div>
            <div class="menu">
                <ul>
                    <li><a href="index.jsp">HOME</a></li>
                    <li><a href="aboutus.jsp">ABOUT</a></li>
                    <li><a href="bookings.jsp">BOOKINGS</a></li>
                    <li><a href="feedback.jsp">FEEDBACK</a></li>
                    <%
                      if(session.getAttribute("email") != null) {
                    %>
                  <li> <button class="adminbtn"><a
href="logout.jsp">LOG OUT</a></button></li>
                      <%
                      }else{
                    %>
                  <li> <button class="adminbtn"><a
href="login.jsp">LOG IN</a></button></li>
                    <%     }
                      %>
                </ul>
            </div>


        </div>
```

This is Login Page (login.jsp) –



Coding –

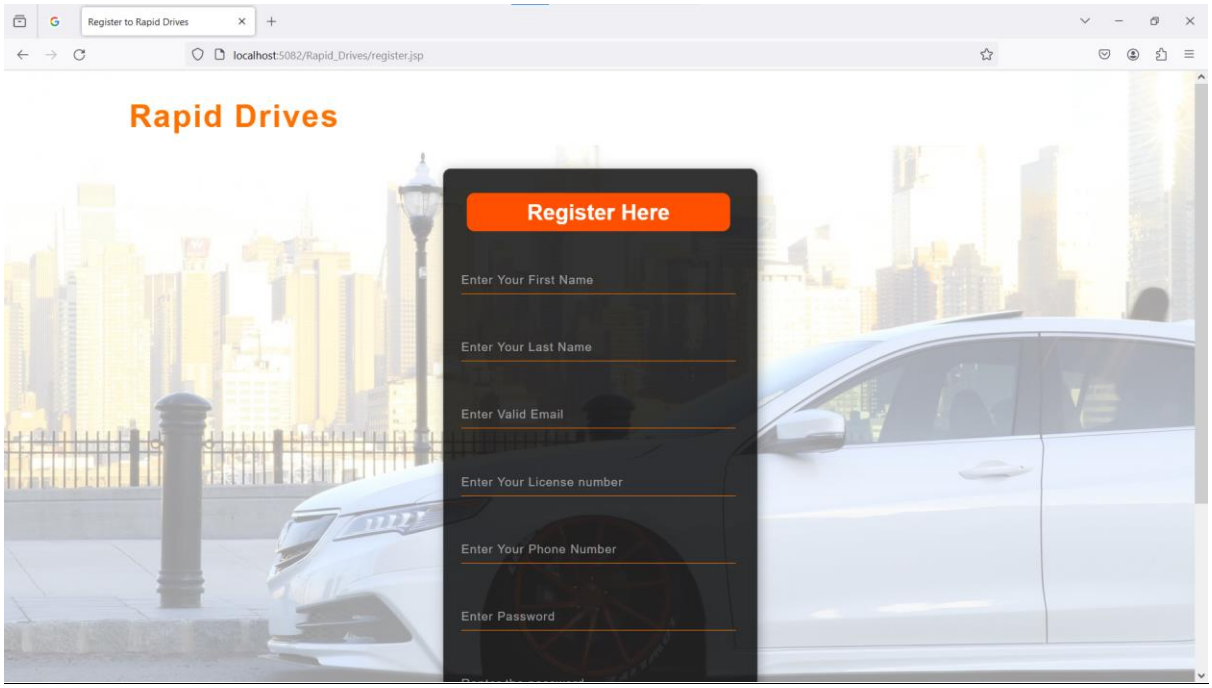
```
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<head>
    <title>Register to Rapid Drives</title>
    <link rel="stylesheet" href="CSS/style.css" type="text/css">

</head>




</head>
<body>
    <div class="hai">
        <div class="navbar">
            <div class="icon">
```

```
                <a href="home.jsp"><h2 class="logo">Rapid
Drives</h2></a>
            </div>
        </div>
    </div>

        <div class="content">
            <h1>Rent Your <br><span>Dream Car</span></h1>
            <p class="par">Live the life of Luxury.<br>
                Just rent a car of your wish from our vast
collection.<br>Enjoy every moment with your family<br>
                 Join us to make this family vast.  </p>
            <button class="cn"><a href="register.jsp">JOIN
US</a></button>
            <div class="form">
                <h2>Login Here</h2>
                <form  action="do-login.jsp" method="POST">
                <input type="email" name="email" placeholder="Enter
Email Here">
                <input type="password" name="pass"
placeholder="Enter Password Here">
                <input class="btnn" type="submit" value="Login"
name="login"></input>
                </form>
                <p class="link">Don't have an account?<br>
                <a href="register.jsp">Sign up</a> here</a></p>
                <p class="liw">or<br>Log in as</p>
                <div class="logins" align="center">
                    <a href="admin/login.jsp">ADMIN</a>
                </div>
            </div>

        </div>
    </div>
    <!-- <script
src="https://unpkg.com/ionicons@5.4.0/dist/ionicons.js"></script> --
>

</body>
</html>
```

Code of Login's Backend file (do-login.jsp) –

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>

<%@ include file="connection.jsp" %>
     <%
          String email = request.getParameter("email");
          String pw = request.getParameter("pass");

          ResultSet rs;
          Statement st;

          try {
               st=con.createStatement();
               rs=st.executeQuery("select *from users where
email='"+email+"' and pw='"+pw+"'");

               if(rs.next()) {
                    response.sendRedirect("index.jsp");

                    session.setAttribute("email",
rs.getString("email"));
               }
               else {
                    %> <script>alert("Incorrect email or
Password")
                                        window.location.href =
"login.jsp"; %>


               }
          }
          catch(Exception e) {
               System.out.print(e);
          }

     %>
```

This is Registration Page (register.jsp) –



Coding –

```
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<head>
    <title>Register to Rapid Drives</title>
    <link rel="stylesheet" href="CSS/style.css" type="text/css">
    <link rel="stylesheet" href="CSS/reg.css" type="text/css">

</head>

<body>
    <div class="hai">
        <div class="navbar">
            <div class="icon">
                <a href="home.jsp"><h2 class="logo">Rapid
Drives</h2></a>
            </div>
        </div>
    </div>
 <div class="main">
```

```
        <div class="register">
        <h2>Register Here</h2>

        <form id="register" action="registering.jsp" method="POST"
onsubmit="return validatePassword()">

            <input type ="text" name="fnm"
            id="name" placeholder="Enter Your First Name" required>
            <br><br>

            <input type ="text" name="lnm"
            id="name" placeholder="Enter Your Last Name" required>
            <br><br>

            <input type="email" name="email"
            id="name" pattern="[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-
z]{2,}$" title="ex: example@ex.com"placeholder="Enter Valid Email"
required>
            <br><br>

            <input type="text" name="lcno"
            id="name" placeholder="Enter Your License number"
required>
            <br><br>

            <input type="tel" name="ph" maxlength="10"
onkeypress="return onlyNumberKey(event)"
            id="name" placeholder="Enter Your Phone Number"
required>
            <br><br>


            <input type="password" name="pass" maxlength="12"
            id="psw" placeholder="Enter Password"
pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8,}" title="Must contain at
least one number and one uppercase and lowercase letter, and at
least 8 or more characters" required>
            <br><br>

            <input type="password" name="cpass"
            id="cpsw" placeholder="Renter the password" required>
            <br><br>
            <table>
```

```
                    <tr>
                        <td>
                            <input type="radio" id="one"
name="gender" value="male"/>
                            <label for="one">Male</label>
                        </td>
                        <td>
                            <input type="radio" id="two"
name="gender" value="female"/>
                            <label for="two">Female</label>
                        </td>
                    </tr>
                </table>
            <br><br>

            <input class="btnn" type="submit" value="Register"
name="register"></input>



        </input>

        </form>
        </div>
    </div>
    <div id="message">
  <h3>Password must contain the following:</h3>
  <p id="letter" class="invalid">A <b>lowercase</b> letter</p>
  <p id="capital" class="invalid">A <b>capital (uppercase)</b>
letter</p>
  <p id="number" class="invalid">A <b>number</b></p>
  <p id="length" class="invalid">Minimum <b>8 characters</b></p>
</div>
<script>
var myInput = document.getElementById("psw");
var letter = document.getElementById("letter");
var capital = document.getElementById("capital");
var number = document.getElementById("number");
var length = document.getElementById("length");

// When the user clicks on the password field, show the message box
myInput.onfocus = function() {
  document.getElementById("message").style.display = "block";
}
```

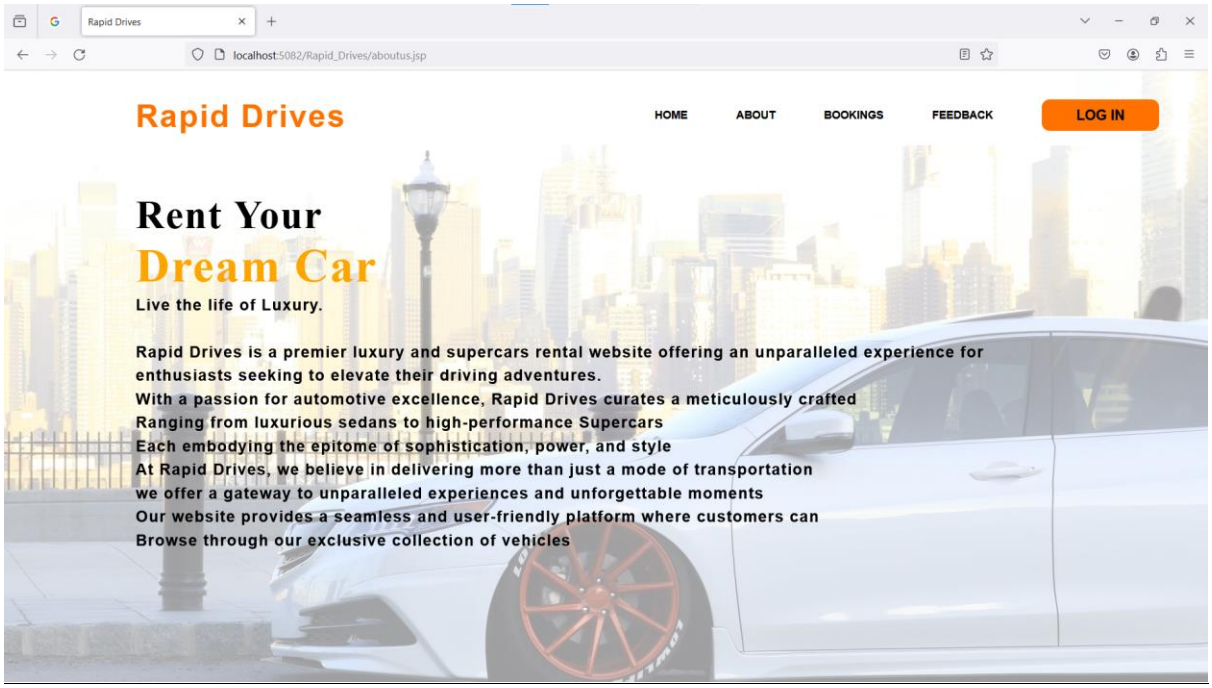
```
// When the user clicks outside of the password field, hide the
message box
myInput.onblur = function() {
  document.getElementById("message").style.display = "none";
}

// When the user starts to type something inside the password field
myInput.onkeyup = function() {
  // Validate lowercase letters
  var lowerCaseLetters = /[a-z]/g;
  if(myInput.value.match(lowerCaseLetters)) {
    letter.classList.remove("invalid");
    letter.classList.add("valid");
  } else {
    letter.classList.remove("valid");
    letter.classList.add("invalid");
}

  // Validate capital letters
  var upperCaseLetters = /[A-Z]/g;
  if(myInput.value.match(upperCaseLetters)) {
    capital.classList.remove("invalid");
    capital.classList.add("valid");
  } else {
    capital.classList.remove("valid");
    capital.classList.add("invalid");
  }

  // Validate numbers
  var numbers = /[0-9]/g;
  if(myInput.value.match(numbers)) {
    number.classList.remove("invalid");
    number.classList.add("valid");
  } else {
    number.classList.remove("valid");
    number.classList.add("invalid");
  }

  // Validate length
  if(myInput.value.length >= 8) {
    length.classList.remove("invalid");
    length.classList.add("valid");
  } else {
```

```
    length.classList.remove("valid");
    length.classList.add("invalid");
  }
}
function validatePassword() {
    var password = document.getElementById("psw").value;
    var confirmPassword = document.getElementById("cpsw").value;

    // Validate password length
    if (password.length < 8) {
        alert("Password must be at least 8 characters long");
        return false;
    }

    // Validate password and confirm password match
    if (password !== confirmPassword) {
        alert("Passwords do not match");
        return false;
    }

    return true; // Form submission allowed if all validations pass
}
    function onlyNumberKey(evt) {

        // Only ASCII character in that range allowed
        var ASCIICode = (evt.which) ? evt.which : evt.keyCode
        if (ASCIICode > 31 && (ASCIICode < 48 || ASCIICode > 57))
            return false;
        return true;
    }
</script>
</body>
</html>
```

Code of Register's Backend File (registering.jsp) –

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-
8859-1">
<title>Insert title here</title>
</head>
<body>
<%@ include file="connection.jsp" %>
     <%
          String fnm = request.getParameter("fnm");
          String lnm = request.getParameter("lnm");
          String email = request.getParameter("email");
          String ph = request.getParameter("ph");
          String lcno = request.getParameter("lcno");
          String gen = request.getParameter("gender");
          String pw = request.getParameter("cpass");


          try {
               PreparedStatement ps = con.prepareStatement("insert
into users (fnm,lnm,email,ph,lcno,gen,pw)
values('"+fnm+"','"+lnm+"','"+email+"','"+ph+"','"+lcno+"','"+gen+"'
,'"+pw+"')");
               int i = ps.executeUpdate();

               if(i>0){
                    response.sendRedirect("index.jsp");
                    session.setAttribute("email", email);
               }
          } catch(Exception e) {
               out.print(e);
          }
     %>
</body>
</html>
```

This is About us Page (aboutus.jsp) –

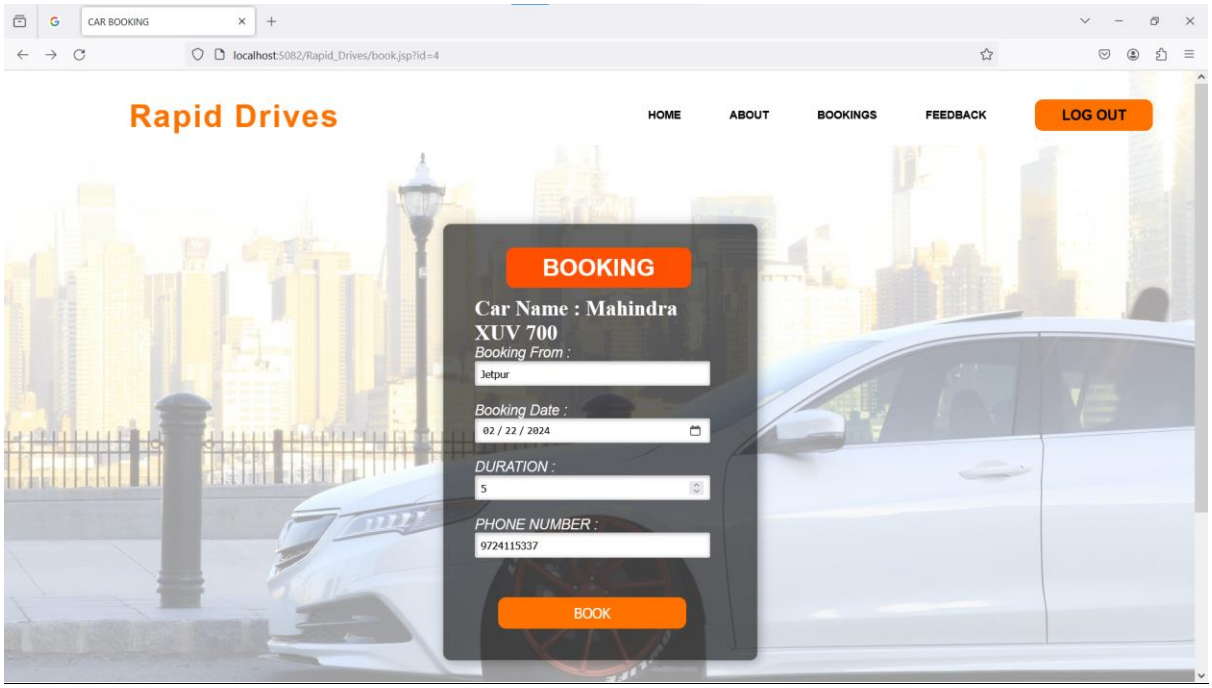


Code –

```
<%@ include file="header.jsp" %>
<style>

.content{
    width:1200px;
    height:auto;
    margin: auto;
    color:black;
    font-style: bold;
    position: relative;
}

.content .par{
    padding-left: 0px;
    padding-bottom: 25px;
    font-family: Arial;
    font-size: 20px;
    font-weight: bold;
    letter-spacing: 1.2px;
```

```
    line-height: 30px;
}
.content h1{
    font-family: 'Times New Roman';
    font-size: 50px;
    padding-left: 0px;
    margin-top: 5%;
    letter-spacing: 2px;
}

</style>

<div class="content">
            <h1>Rent Your <br><span>Dream Car</span></h1>
            <p class="par">Live the life of Luxury.<br><br>
                Rapid Drives is a premier luxury and supercars
rental website offering an unparalleled experience for enthusiasts
seeking to elevate their driving adventures.<br>
                With a passion for automotive excellence, Rapid
Drives curates a meticulously crafted <br>
                Ranging from luxurious sedans to high-performance
Supercars<br>
                Each embodying the epitome of sophistication, power,
and style<br>
                        At Rapid Drives, we believe in delivering more
than just a mode of transportation<br>
                        we offer a gateway to unparalleled experiences
and unforgettable moments<br>
                        Our website provides a seamless and user-
friendly platform where customers can<br>
                        Browse through our exclusive collection of
vehicles
 </p>
</div>

<%@ include file="footer.jsp" %>
```

This is Book Page (book.jsp) –



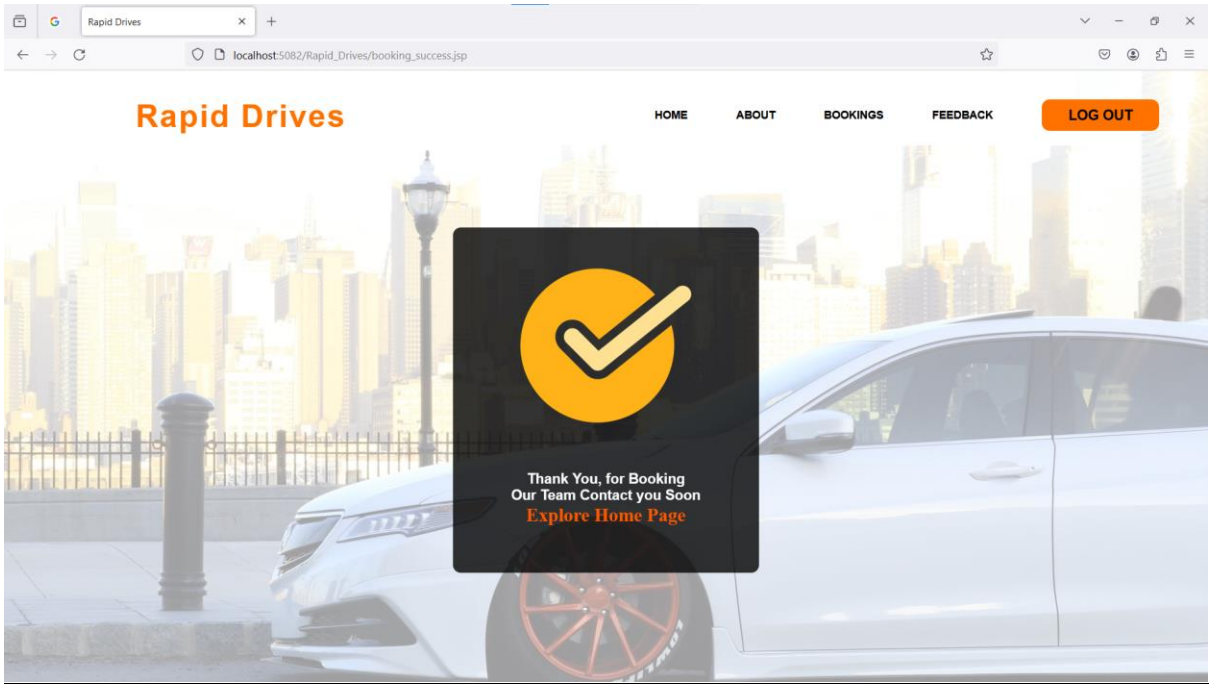
Code –

```
<head>
    <title>CAR BOOKING</title>
    <link  rel="stylesheet" href="CSS/book.css">

</head>
<body>
<%@ include file="header.jsp" %>
<%@ include file="connection.jsp" %>

      <%
            if(session.getAttribute("email") != null) {
                  String email=(String)session.getAttribute("email");
                  ResultSet res;
                  Statement stmt;
                  stmt=con.createStatement();
                  res=stmt.executeQuery("select *from users where
email='"+email+"'");
                  res.next();
                  ResultSet rs;
```

```
                Statement st;
String car_id_st = request.getParameter("id");
                int car_id = Integer.parseInt(car_id_st);

              st=con.createStatement();
                rs=st.executeQuery("select *from cars where id =
'"+car_id+"'");

            if(rs.next()) {
                String car_name = rs.getString("name");
     %>
        <div class="main">

        <div class="register">
            <h2 class="heading">BOOKING</h2>
        <form id="register" method="POST" action="do-book.jsp">
            <h2 class="h2c">Car Name : <% out.print(car_name);
%></h2>

            <label>Booking From : </label>
            <br>
            <input type="text" name="place"
            id="name" placeholder="Enter Your Destination">
            <br><br>

            <label>Booking Date : </label>
            <br>
            <input type ="date" name="date"
            id="datefield" min='1899-01-01' max='2025-13-13'
placeholder="ENTER THE DATE FOR BOOKING">
            <br><br>

            <label>DURATION : </label>
            <br>
            <input type ="number" name="dur" min="1" max="30"
            id="name" placeholder="Enter Rent Period (in days)">
            <br><br>

            <label>PHONE NUMBER : </label>
            <br>
            <input type="tel" name="ph" maxlength="10" value="<%
out.print(res.getString("ph")); %>"
            id="name" placeholder="Enter Your Phone Number">
            <br><br>
```

```
                <input type="hidden" name="email" value="<%
out.print(email); %>">
                <input type="hidden" name="fnm" value="<%
out.print(res.getString("fnm")); %>">
                <input type="hidden" name="lnm" value="<%
out.print(res.getString("lnm")); %>">
                <input type="hidden" name="lcno" value="<%
out.print(res.getString("lcno")); %>">
                <input type="hidden" name="car_name" value="<%
out.print(car_name); %>">
                <input type="hidden" name="car_rent" value="<%
out.print(rs.getString("rent")); %>">

            <input type="submit"  class="btnn" value="BOOK"
name="book" >

        </form>
        </div>
    </div>
    <% }
           }else{
                response.sendRedirect("login.jsp");
           }
           %>


</body>
</html>
```

This is Booking Success Page (booking-success.jsp) –

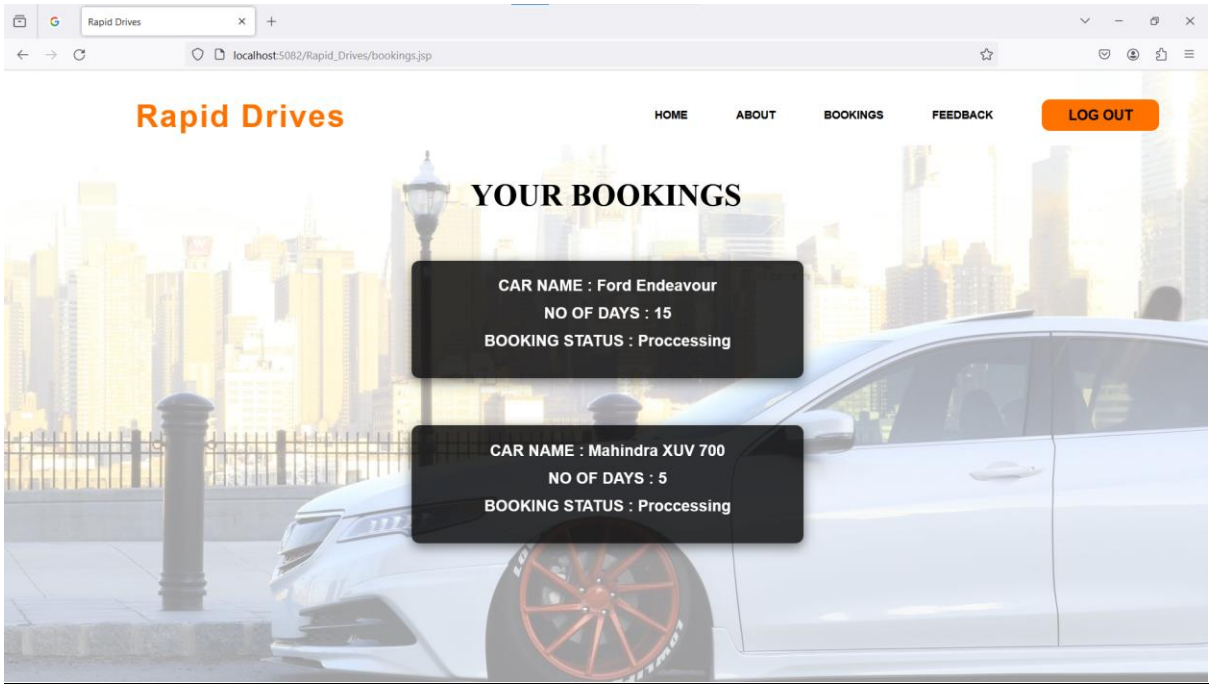


Code –

```
<%@ include file="header.jsp" %>

<head>
	<style>
		.cont{
		  width: 350px;
		height: 400px;
		background: linear-gradient(to top, rgba(0, 0, 0,
0.8) 50%, rgba(0, 0, 0, 0.8) 50%);
		position: absolute;
		top: 50%;
		left: 50%;
		transform: translate(-50%, -50%);
		border-radius: 10px;
		padding: 20px;
		text-align: center;
		margin-top: 30px;
		}
```

```
            img {
                  width: 260px;
                  display: inline-block;
            }
            h3 {
                  color: #fff;
                  font-size: 18px;
                  font-family: Arial;
                  text-align: center;
                  margin-top: 30px;
            }
      </style>
</head>
      <div class="cont">

            <img src="images/success.png">
            <h3>Thank You, for Booking <br>
                  Our Team Contact you Soon
            </h3>
            <div class="logins" align="center">
                  <h2><a href="index.jsp">Explore Home Page</a></h2>
            </div>

      </div>
</body>
</html>
```

This is All Bookings Page (bookings.jsp) –

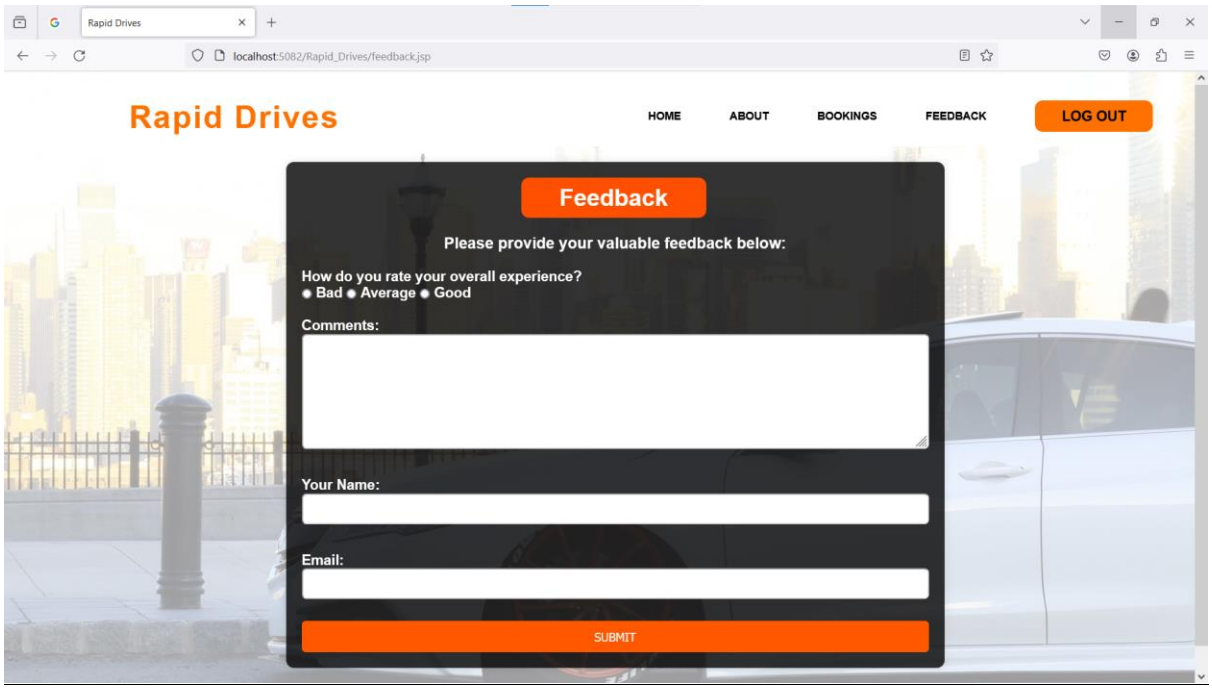


Code –

```
<%@ include file="header.jsp" %>
<%@ include file="connection.jsp" %>
<head>
	<style>
		.main{
			text-align: center;
		    padding: 20px;
		    box-sizing: border-box;
		    background: #fff;
		    border-radius: 4px;
		    box-shadow: 0 5px 15px rgba(0,0,0,.5);
		    background: linear-gradient(to top,
rgba(0,0,0,0.8)50%,rgba(0,0,0,0.8)50%);
		    align-content: center;
		    width: 500px;
		    height: 150px;
		    margin-top: 60px;
		    margin-left: 520px;
```

```
                border-radius: 10px;
                top:150px;
                left: 480px;
                color: white;
                font-size: 10px;
                font-family: Arial;
            }
            .heading{
                  text-align: center;
                  font-size: 40px;
                margin-top: 40px;
            }
      </style>
</head>
<body>
<div><h1 class="heading">YOUR BOOKINGS</h1>
<%

if(session.getAttribute("email") != null) {
      String email=(String)session.getAttribute("email");
      ResultSet rs;
            Statement st;
    try {
        st = con.createStatement();
        rs = st.executeQuery("SELECT *FROM bookings where email =
'"+email+"'");
        while (rs.next()) {
      %>
      <div class="main">
            <h1>CAR NAME : <% out.print(rs.getString("car_name"));
%></h1><br>
        <h1>NO OF DAYS : <% out.print(rs.getString("days"));
%></h1><br>
        <h1>BOOKING STATUS : <% out.print(rs.getString("status"));
%></h1><br>
      </div>
      <% }
    } catch (SQLException e) {
            e.printStackTrace();
    }
    }else {
      response.sendRedirect("login.jsp");
    }
      %></body></html>
```

This is Feedback Page (feedback.jsp) –



Code –

```
<%@ include file="header.jsp" %>

<div class="container">
     <div class="row " style="margin-top: 50px">
         <div class="form-container">
             <h2 class="heading">Feedback</h2><br>
             <p class="des"> Please provide your valuable feedback
below: </p> <br>
             <form id="reused_form" action="send-feedback.jsp"
method="POST">
                 <div class="row">
                     <div class="col-sm-12 form-group">
                         <label>How do you rate your overall
experience?</label>
                         <p>
                             <label class="radio-inline">
```

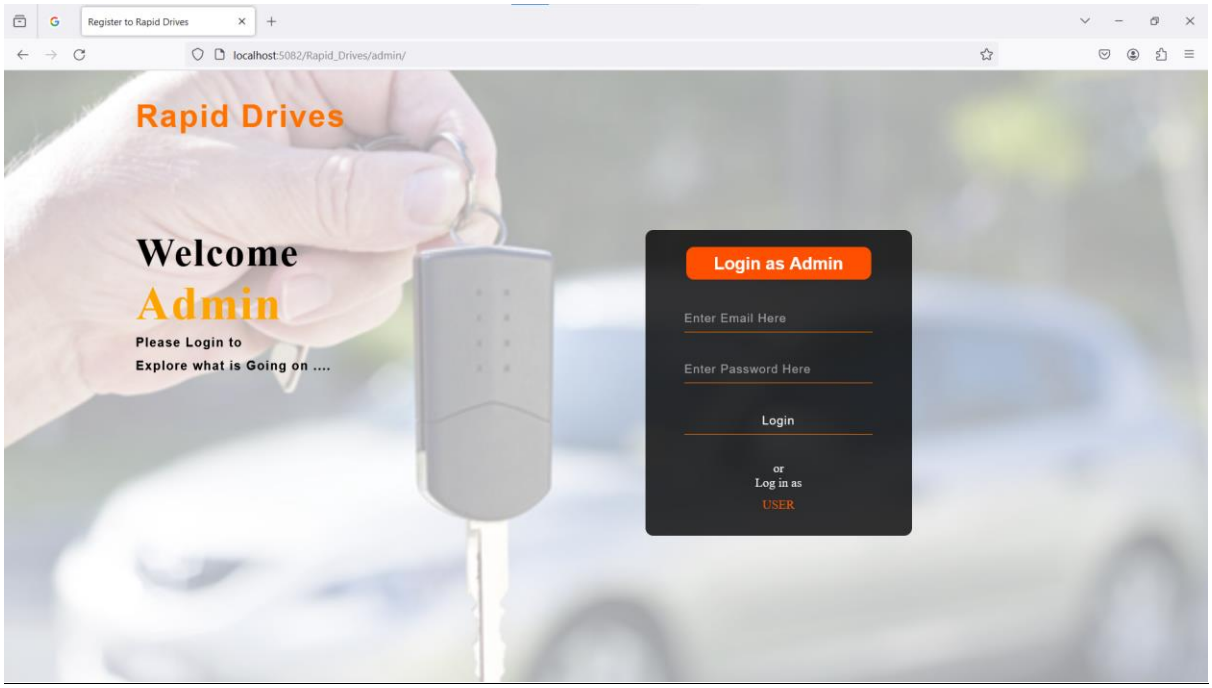
```
                                    <input type="radio"
name="experience" id="radio_experience" value="Bad" >
                                    Bad
                                </label>
                                <label class="radio-inline">
                                    <input type="radio"
name="experience" id="radio_experience" value="Average" >
                                    Average
                                </label>
                                <label class="radio-inline">
                                    <input type="radio"
name="experience" id="radio_experience" value="Good" >
                                    Good
                                </label>
                            </p><br>
                        </div>
                    </div>
                    <div class="row">
                        <div class="col-sm-12 form-group">
                            <label for="comments"> Comments:</label>
                            <textarea class="form-control"
type="textarea" name="comments" id="comments" placeholder="Your
Comments" maxlength="6000" rows="7"></textarea>
                        </div>
                    </div><br>
                    <div class="row">
                        <div class="col-sm-6 form-group">
                            <label for="name"> Your Name:</label>
                            <input type="text" class="form-control"
id="name" name="name" required>
                        </div><br>
                        <div class="col-sm-6 form-group">
                            <label for="email"> Email:</label>
                            <input type="email" class="form-control"
id="email" name="email" required>
                        </div>
                    </div>
                    <div class="row">
                        <div class="col-sm-12 form-group">
                            <input type="submit"  class="btn btn-lg
btn-warning btn-block" value="SUBMIT"></input>
                        </div>
                    </div>
                </form>
```

```
            <div id="success_message" style="width:100%;
height:100%; display:none; "> <h3>Posted your feedback
successfully!</h3> </div>
            <div id="error_message" style="width:100%; height:100%;
display:none; "> <h3>Error</h3> Sorry there was an error sending
your form. </div>
         </div>
     </div>
 </div>
</body>
</html>
```

* There is Lots of CSS Code which I didn't added, you will find this code in CD Drive which is attached to this Documentation.

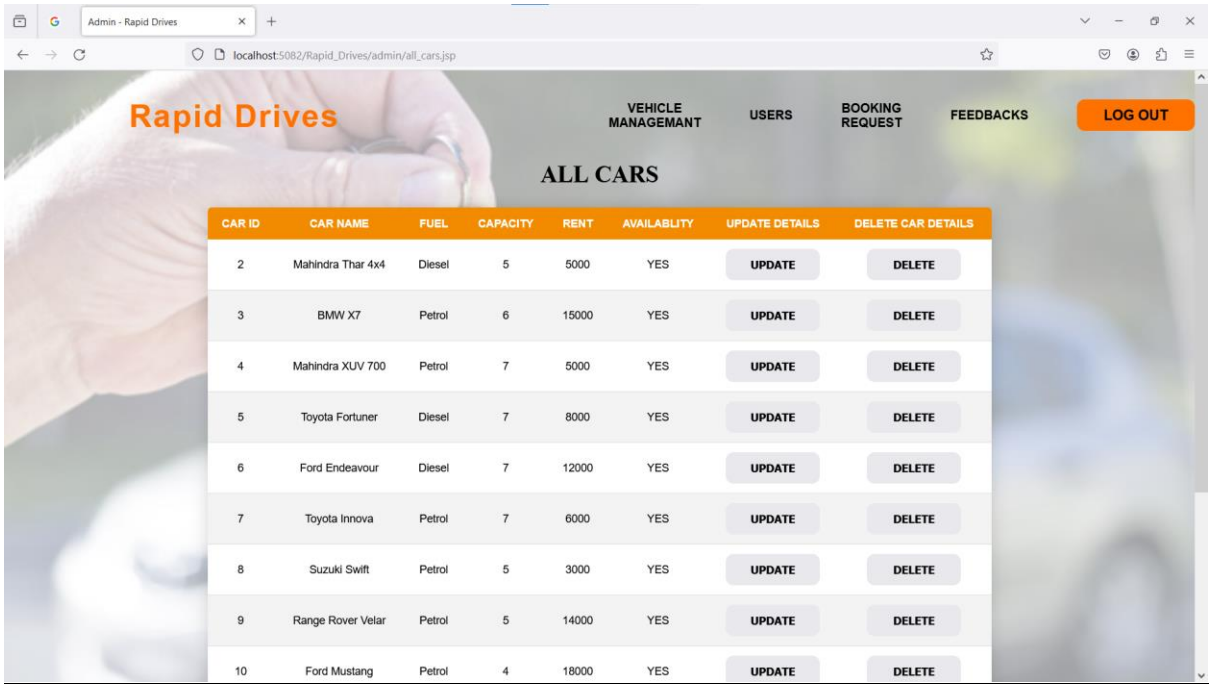
Now see Admin Panel -

This is Admin's Login Page (login.jsp) –

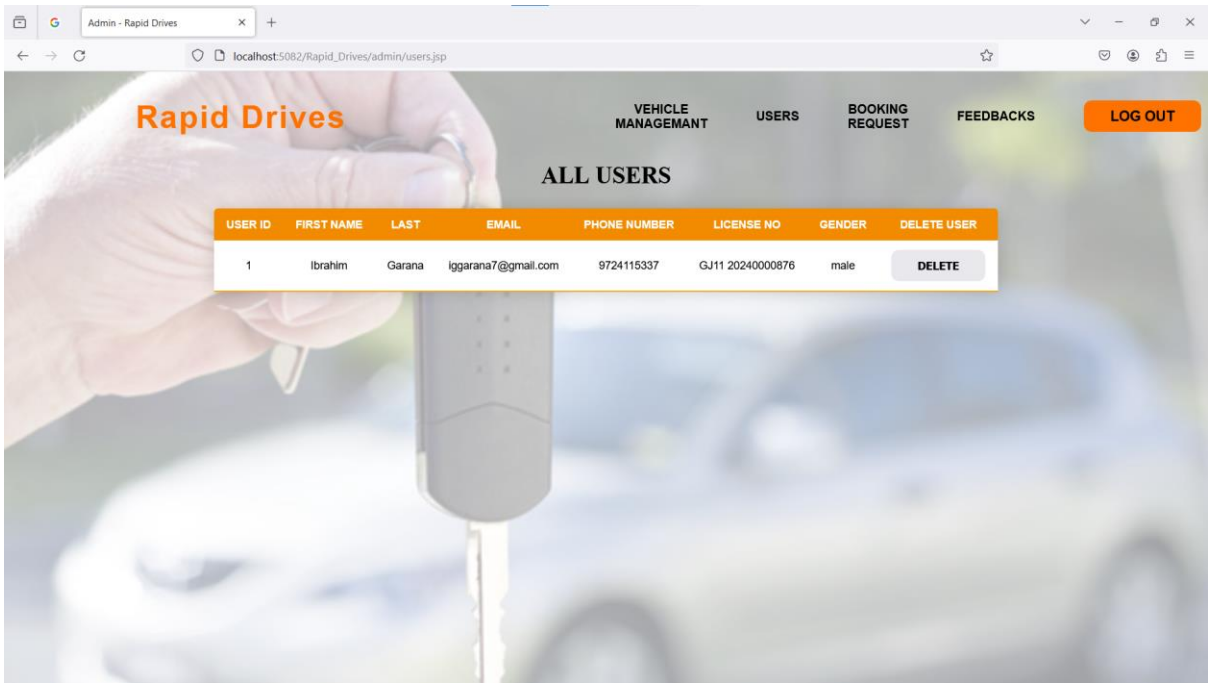


There is Lots of Backend codes so I didn't attached here, you can find all files in CD Drive which is attached with this Documentation.

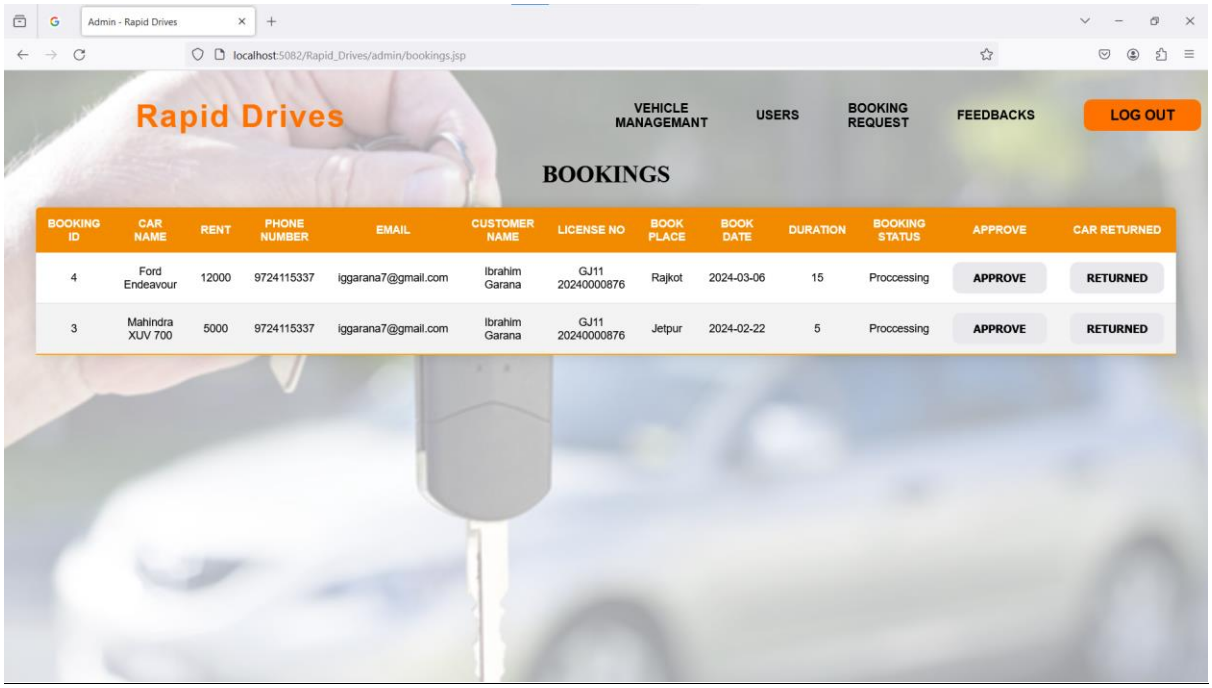
This is Vehicle Management Page –



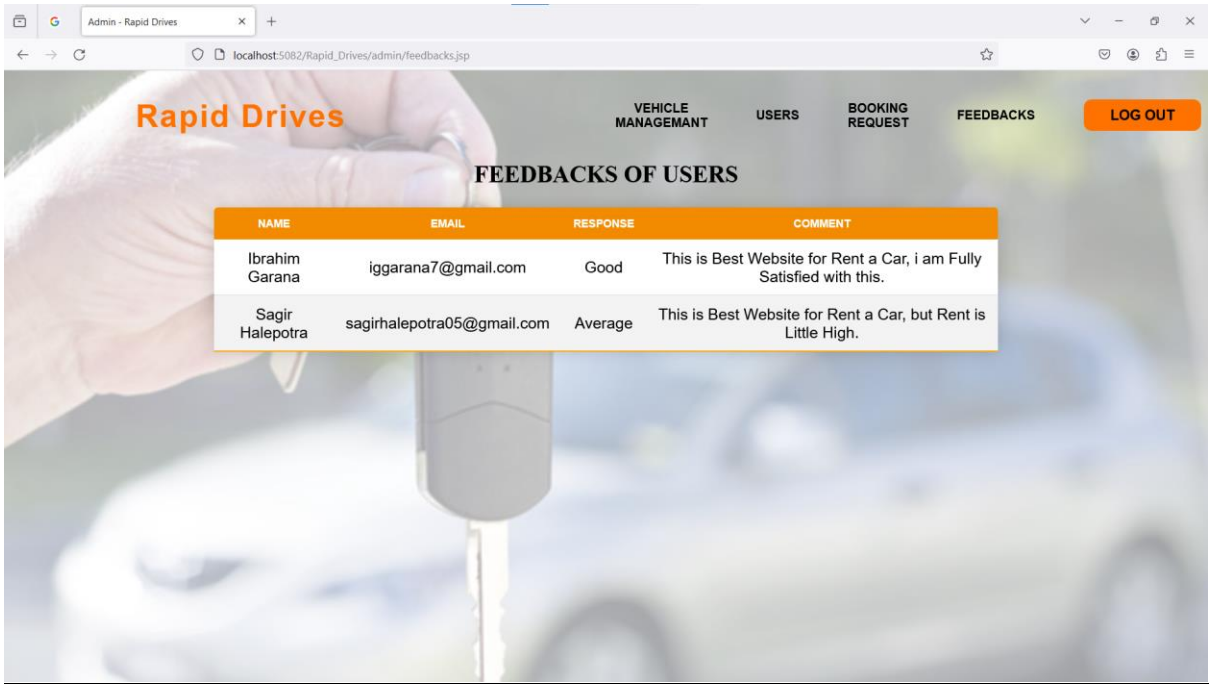
This is Users Management Page –



This is Bookings Management Page –



This is Feedback View Page –

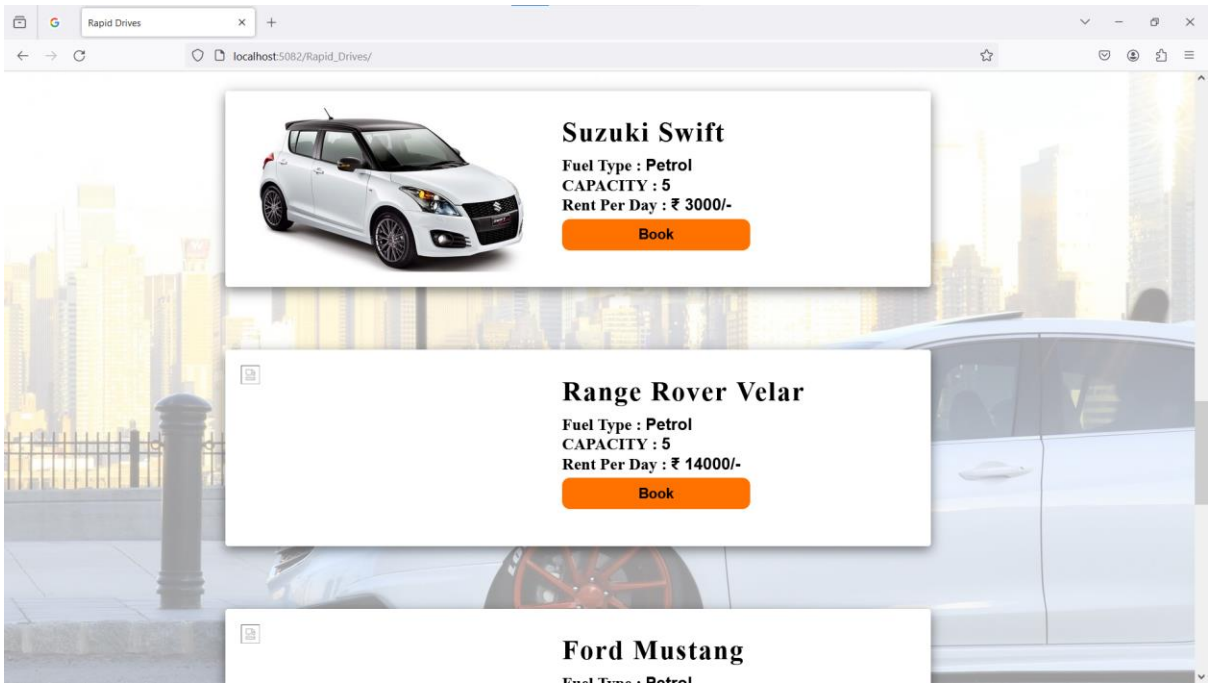


Errors and Solution

I have faced many errors and bugs in any project development errors are creating over project useless or not working. so you should prepare for errors and bugs.

In my Project, There I Bug where Some of Cars Photo Displaying without any Problem, but Some Cars photo doesn't Display (blank).

Here is Screenshot –



In above screenshot, Suzuki Swift's Photo Displays Without any problem, but Range Rover Velar's Photo is not Displaying.

By Arranging Photos in Proper Way, then Problem is Solved.

Also There is Many Problems like, Browser incompability, System Lags,
Mainly Eclipse Browser doesn't support some CSS.

But as a Student I managed many things and Finally Project is Completed.

Testing

testing is a program consists of providing the problem with a set of test inputs and observing if the programme behave as expected or not if the program fails to behave as expected that the condition.

There are 2 types of testing –

- Black Box Testing
- White Box Testing

Black Box Testing –

Black box testing is the software testing method which is used to test the software without knowing the internal structure of the program.

This type of testing is carrying out by testers.

Implementation knowledge is not required to carry out black box testing.

White Box Testing –

White box testing is the software testing method in which internal structure is being known to tested who is going to test the software. Generally these testing is carried out by software developers.

Implementation knowledge is required to carry out white box testing.

White box testing is made by developer so we have did White Box testing for our project.

Implementation

I have implemented many functionality in my project Rapid Drives. Like we have implemented Bookings management, User management, Feedbacks and many other things.

Our user side is normal and simple, user can view Cars and Explorer web without logging, only login required on made Bookings and view their Bookings.

Our admin site looks not as much attractive but it has took very much time and large amount of coding it has many functionalities like Bookings approve or deny. Manage cars, add new cars, update cars Details, delete Cars etc. Manage users, delete users, keep users etc.

Main thing is When There is Approved any car for Rent then it will Not Display on Home Screen, and when it's rent gets Complete and Customer give back then admin marks it Bookings as 'Returned' and then it Car now Displays on the Home Screen.

So we try as possible to implement more functionality.

Limitation

In implementation part we discussed about what we add in our 'Rapid Drives' project.

But in Limitation part we are going Discuss about limitations of over project.

I have created This Project in short time That's why i can't do all things, so my project is only 30% of my thought. I have thought many things to implement in it but some limits causes.

In current project the main limitation is designing and Some Bugs. I can't design my project as much professional and Some Bugs in Design are remains.

And the second big limitation is I did not add feature of add image of car, Admin have to copy Image manually and write path of Image on add a new Car in database.

So these are the biggest limitation of our project.

Conclusion

The project 'Rapid Drives' is completed at University Requirement but in my Requirement it is not completed. I will complete it enhanced it in future and my plan is to execute this project in Real Life so you can see this project on web in future.

The main purpose of this project is now what I can do, what I can Create and how is my knowledge on website is and this ecommerce business. And I found out that I am very weak at this if I want to launch this website then it tooks teamwork and consistency. However it was very challenging learning and developing and Working with JSP (Java) technology.

References

- https://www.europcar.com
- https://www.kayak.co.in
- https://shrisaicab.com