A Project Report On

Car Showroom

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Acknowledgement

I hereby certify that this project is original and solely my work. Its successful completion would not have been possible without the guidance and support of several individuals, to whom I am deeply grateful.

First and foremost, I extend my sincere appreciation to my Head of the Department, Er. Tejinder Deep Singh, and my mentor, Er. Gurmeet Singh. Their expertise, valuable insights, and constructive feedback played a pivotal role in shaping this project.

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Finally, I extend my thanks to everyone who contributed to this project in any capacity. Your assistance and guidance have been truly invaluable

Deepak Kumar Yadav

Student's Declaration

I hereby certify that the work presented in this major project report, titled **"Car Showroom"**, has been carried out by me as a part of the **training sessions** in fulfillment of the requirements for the **Bachelor of Technology degree in the Department of Computer Science and Engineering** at **Global Group of Institutes, Sohian Khurd**. This report is a record of my original work conducted during the **training sessions of the 2nd semester**.

April 22, 2025 Deepak Kumar Yadav

The major project viva-voce examination of Deepak Kumar Yadav Roll No. 2231501 of B.TECH (CSE) has been held on 22-April-2025.

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CHAPTER - 1

INTRODUCTION TO PROJECT

The Car Showroom Website Project is designed to create an advanced, user-friendly platform that transforms how customers interact with a car dealership online. This project focuses on delivering a seamless car-buying and servicing experience, combining cutting-edge features with a smooth interface to meet the needs of both new and returning customers. Dynamic Vehicle Listings: Easy filtering and detailed vehicle descriptions for new and used cars.

- Financing & Leasing Options: Integrated calculators and application tools to simplify payment planning.
- Service Requests: Online scheduling for repairs and maintenance.
- Test Drive Booking: Streamlined test drive scheduling for in-person or home-based appointments.
- Special Offers: Highlight limited-time promotions and exclusive deals

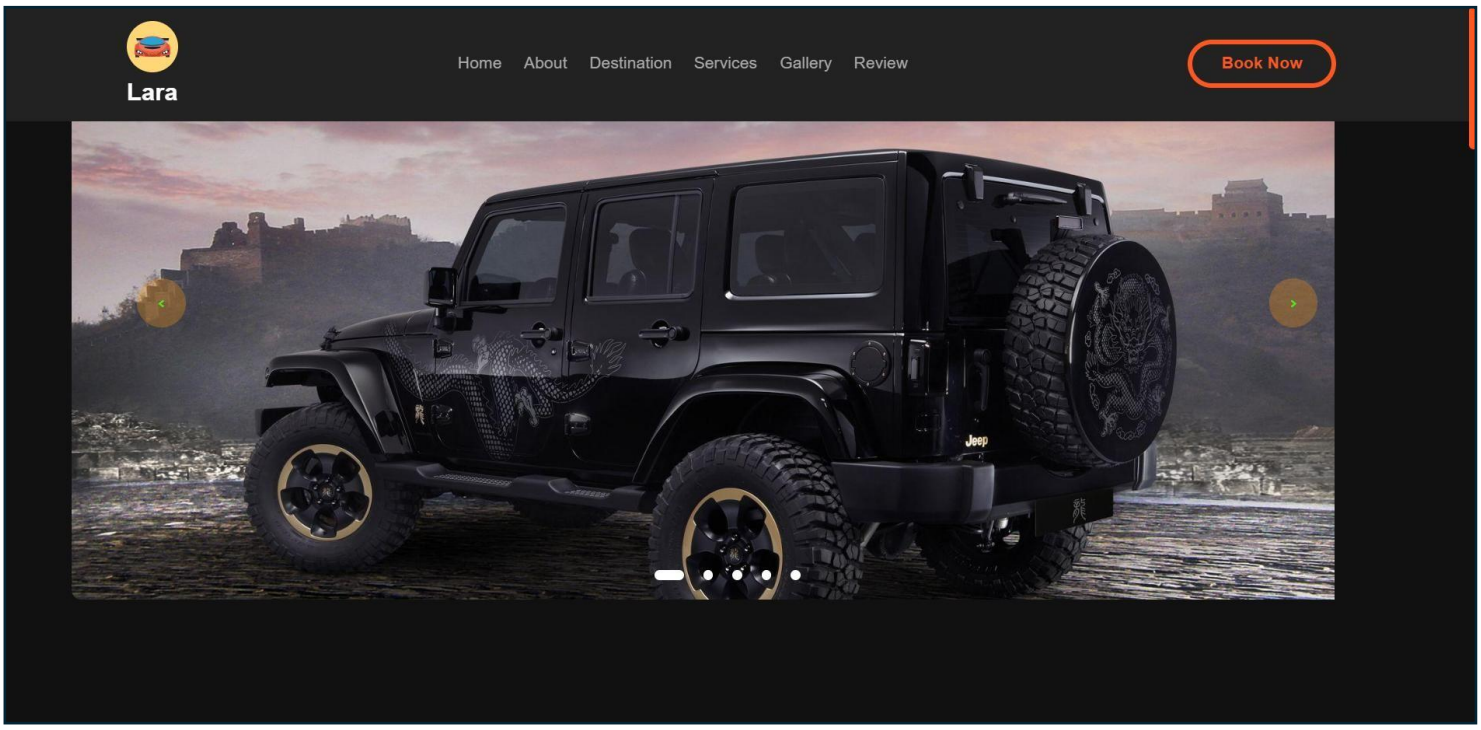

Figure 1.1 (Home Page)

1.1 Project Aim & objectives

The primary objective of the Car Showroom Website is to deliver a seamless and engaging online experience for customers throughout their vehicle buying journey. The website aims to

- **Simplify Online Purchases:** Provide a secure platform for users to complete their car purchases, including online payment and digital documentation.
- **Facilitate Financing and Leasing:** Offer convenient online tools for applying for financing, calculating monthly payments, and exploring leasing options.
- **Streamline Trade-In Valuation:** Enable users to quickly obtain and apply trade-in values for their current vehicles through an online estimator.
- **Enable Test Drive Scheduling:** Allow users to book test drives effortlessly, including options for inperson and home-based test drives.
- **Manage Service Appointments:** Provide an easy-to-use system for scheduling and managing vehicle maintenance and repair services.
- **Promote Offers and Discounts:** Highlight special promotions, discounts, and seasonal deals to attract and retain customers.
- **Offer Extended Warranties:** Present various extended warranty and protection plan options, with the ability to purchase directly online.

1.2 SCOPE OF PROJECT

I. Homepage:
    - Showcase latest models, popular cars, and featured offers.
    - Include a dynamic banner with upcoming car launches or discounts.
    - Display contact information and showroom location with a map.

II. Car Listings and Details:
    - Categorized listings (SUVs, Sedans, Hatchbacks, etc.).
    - Detailed car pages with images, specifications, and pricing.
    - 360-degree view and 3D car design feature for an immersive experience.
    - Comparison tool to compare different car models.

III. Booking and Registration:
    - User-friendly booking process for test drives or car bookings.
    - Multi-step registration form with progress indicator.
    - Secure user account creation and login options.

IV. Payment Options

- Multiple payment gateways (UPI, PhonePe, Paytm, credit/debit card).
- Payment confirmation pop-up.
- Option for PDF invoice download post-payment. V. Virtual and Interactive Features:
- Virtual tour of the showroom.
- Interactive car customization (choose colors, wheels, interiors, etc.).
- Augmented Reality (AR) feature to visualize cars in real-world settings.

VI. Customer Support:

- Live chat feature for instant assistance.
- Contact form for inquiries.
- FAQ section addressing common questions about cars and services.

VII. User Reviews:

- Section for customer reviews on car models and showroom experience.
- Rating system for models and services.

1.3 Key Feature of Project

1. User Features (Frontend)

Home Page – Displays featured cars, promotions, and showroom details

Car Listings – View available cars with specifications, images, and prices

Advanced Search & Filter – Search by model, price range, fuel type, and brand

Car Comparison – Compare multiple cars based on specifications and features

Virtual Tour – 360-degree car views and virtual showroom experience

Test Drive Booking – Schedule a test drive online

Online Booking & Payments – Secure booking and payment options (Credit/Debit, UPI, Net Banking)

Customer Reviews & Ratings – Users can leave feedback and ratings

Contact & Support – Inquiry form, live chat, and showroom contact details

2. Admin Features (Backend)

Admin Dashboard – Manage car listings, orders, and customer inquiries

User Management – Add, remove, and update customer profiles

Inventory Management – Add/update/remove car details (price, images, stock availability)

Offer & Discount Management – Admin can set seasonal discounts or promotional offers

Order & Payment Tracking – View booking details and payment status

Test Drive Management – Approve, reschedule, or cancel test drive requests

Data Analytics & Reports – Track sales, customer preferences, and website performance

Project Deployment Link

You can access the live version of the *Car Showroom Website* at the following URL:
https://lara-car-r3qg.vercel.app/

CHAPTER - 2

LITERATURE STUDY

A literature study involves reviewing existing systems, technologies, and methodologies that relate to the development of the Car Showroom Website. It helps identify the best practices, gaps in current solutions, and innovative features that can be incorporated into the project.

2.1 Existing Systems Overview

Many traditional car dealerships still rely on physical showrooms and manual record-keeping, which can limit accessibility and efficiency. However, modern digital platforms like **CarDekho**, **Spinny**, **CarWale**, and **CARS24** have revolutionized the way people buy and sell vehicles online. These platforms offer a range of functionalities such as:

- Online vehicle browsing with detailed specifications
- Booking of test drives
- EMI calculators and loan applications
- Vehicle comparison tools
- Trade-in valuations and document processing

2.2 Technologies Used in Similar Systems

Web-based car showroom systems typically use:

- **Frontend**: HTML, CSS, JavaScript,
- **Backend**: PHP for server-side logic
- **Payment Integration**: Razorpay, Paytm, or Stripe APIs

2.3 Limitations in Existing Systems

While existing systems are robust, there are certain gaps:

- Limited personalization in customer experience
- Lack of AR/VR integration for immersive car viewing
- Inadequate support for electric/hybrid vehicle details
- Fragmented service booking systems

2.4 Objective of Literature Review

The objective of this study is to understand existing digital showroom platforms, assess the latest technological trends, and explore how these can be effectively integrated or improved in the current Car Showroom Website project. This ensures the final product stands out in terms of both functionality and user experience.

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PROBLEM STATEMENT

In today's fast-paced digital world, customers seek convenience, speed, and efficiency when purchasing vehicles. However, traditional car showrooms often fall short in delivering a seamless and modern experience due to the following limitations:

1. **Lack of Online Accessibility**: Customers must visit physical showrooms to view car options, gather information, or make bookings, leading to time-consuming and inconvenient processes.
2. **Limited Information Transparency**: In many cases, detailed specifications, pricing, and comparisons are not readily available to the customers, which affects decision-making.
3. **Inefficient Service Scheduling**: Customers often face delays and manual processes when scheduling test drives or service appointments.
4. **Inadequate Digital Engagement**: Existing platforms often lack features such as virtual tours, car customization, or AR experiences that can enhance user engagement.
5. **Unorganized Inventory Management**: For showroom owners, managing a growing inventory, bookings, and customer inquiries becomes challenging without an integrated system.
6. **Lack of Integrated Payment and Financing Solutions**: Customers face fragmented experiences when applying for financing, calculating EMIs, or making payments.

Identified Problem

There is a need for a centralized, responsive, and interactive platform that bridges the gap between customers and car dealerships. The system should be capable of providing complete car details, online booking, test drive scheduling, customer support, and digital payment – all in one place.

Solution Approach

To address these challenges, this project proposes the development of a fully functional **Car Showroom Website** that combines vehicle listing, test drive booking, payment gateway, customer support, and administrative features in a user-friendly interface.

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PREPARING AND RUNNING AN HTML FILE

To create and run the Car Showroom website, we begin with preparing a basic HTML file. HTML (HyperText Markup Language) forms the foundation of every webpage. It is used to structure the content of the website.

4.1 Tools Required

- **Code Editor**: Visual Studio Code (VS Code),
- **Web Browser**: Google Chrome, Mozilla Firefox, or Microsoft Edge

4.2 Steps to Prepare and Run an HTML File

Step 1: Create a New HTML File

1. Open your preferred code editor (e.g., VS Code).
2. Create a new file and save it with a .html extension, for example: index.html.

Step 2: Write Basic HTML Code

Here is a sample structure of an HTML file:

```
<!DOCTYPE html>
<html>
<head>
   <title>Car Showroom</title>
</head>
<body>
   <h1>Welcome to Our Car Showroom</h1>
   <p>Explore the latest car models, offers, and book your test drive today!</p>
</body>
</html>
```

Step 3: Save the File

Save the file using Ctrl + S (or Cmd + S on Mac).

Step 4: Run the File in Browser

1. Right-click on the file and choose **"Open with"** → select your web browser.
2. Alternatively, drag and drop the file directly into the browser window.
3. You should now see your HTML content displayed in the browser.

4.3 Using Live Server (Optional)

To make development easier, you can use the **Live Server** extension in VS Code:

1. Install the **Live Server** extension from the Extensions panel.
2. Right-click on your HTML file and click **"Open with Live Server"**.
3. The page will automatically refresh whenever you save the file.

4.4 CSS – Styling and Layout

CSS (Cascading Style Sheets) is used to design and style the HTML components such as fonts, colors, layout, and responsiveness.

Example Implementation:

```
body {   font-family: Arial,
sans-serif;   background-color:
#f5f5f5;   margin: 0;
padding: 0;
} h1 {   color:
#2c3e50;   text-
align: center;
}
```

4.5 JavaScript – Adding Interactivity

JavaScript is used for client-side logic and interactivity like form validation, image sliders, dynamic filtering of cars, etc.

Example Implementation:

```
function
confirmBooking() {
  alert("Your test drive has been booked successfully!"); }
```

4.6 PHP – Backend Functionality

PHP (Hypertext Preprocessor) was used to handle server-side logic, such as storing bookings, retrieving car details from the database, and processing contact forms.

Example Implementation:

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST['name'];
```

```
$car_model = $_POST['car_model'];     // Database connection and
insertion logic here     echo "Thank you, $name! Your request for $car_model
has been received."; }
?>
```

4.7 Running the Project (Using XAMPP Server)

Steps to Run the Project:

1. Install and open **XAMPP**.
2. Start **Apache** server.
3. Place your project folder in: C:/xampp/htdocs/car_showroom/
4. Open browser and go to:
5. http://localhost/car_showroom/index.html or for PHP: http://localhost/car_showroom/index.php

4.8 Folder Structure of the Project

```
car_showroom/
    │
    ├── index.html / index.php     ← Main page
    ├── style.css                  ← CSS for UI
    ├── script.js                  ← JavaScript for interactions
    ├── book_test_drive.php        ← PHP backend for form handling
    ├── images/                    ← Car images
    └── dbconfig.php               ← Database connection file
```

CHAPTER - 5

HTML ELEMENTS AND THEIR IMPLEMENTATION

HTML elements are the fundamental building blocks used to create and design a webpage. Each element represents a structure or a piece of content such as headings, paragraphs, images, forms, and buttons. In the development of the Car Showroom website, various HTML elements have been used to build an interactive and well-structured interface.

5.1 Basic HTML Elements Used

Element	Purpose	Implementation Example
<html>	Root element of an HTML document	<html> ... </html>
<head>	Contains metadata, title, and links to stylesheets	<head><title>Car Showroom</title></head>
<body>	Contains all visible content on the page	<body> ... </body>
<h1> to <h6>	Define headings	Welcome to Car Showroom
	Paragraphs of text	Explore top car models and offers.
<a>	Hyperlinks to other pages	Contact Us
<img>	Display images	<img src="car.jpg" alt="Car Image">
, ,	Create lists	- SUV - Sedan
<form>	Create input forms	<form action="/submit"> ... </form>
<input>	Input fields inside a form	<input type="text" name="username">
<button>	Clickable buttons	<button>Book Now</button>
	Division or section of the page	...
	Inline element for styling or grouping	₹10,00,000

5.2 Example Implementation in Project

Homepage Snippet:

```
<!DOCTYPE html>
<html>
<head>
  <title>Car Showroom</title>
</head>
<body>
```

```
  <h1>Welcome to Our Car Showroom</h1>
  <p>Choose from a wide range of premium cars.</p>
  <img src="banner.jpg" alt="Showroom Banner">
  <a href="models.html">Explore Models</a>
</body>
</html>
```

Booking Form Example:

```
<form action="book.php" method="post">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name"><br><br>

  <label for="car">Car Model:</label>
  <input type="text" id="car" name="car"><br><br>

  <label for="date">Preferred Test Drive Date:</label>
  <input type="date" id="date" name="date"><br><br>

  <button type="submit">Book Test Drive</button>
</form>
```

5.3 Importance in the Project

HTML elements help structure the entire website into meaningful sections like:

- Car listings
- Test drive booking
- Payment forms
- Contact and support
- Navigation menus Each element plays a specific role in improving user experience and functionality.

CHAPTER - 6

RESULTS AND DISCUSSION

6.1 Screenshots and its Description

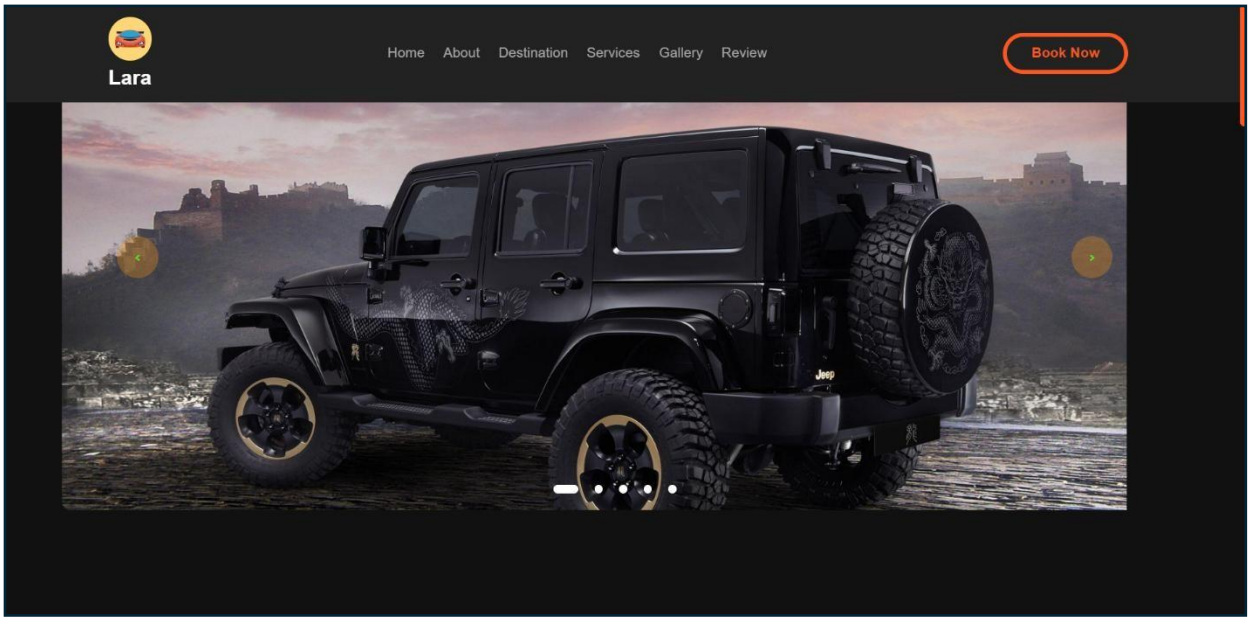

Figure 1(Home Page)

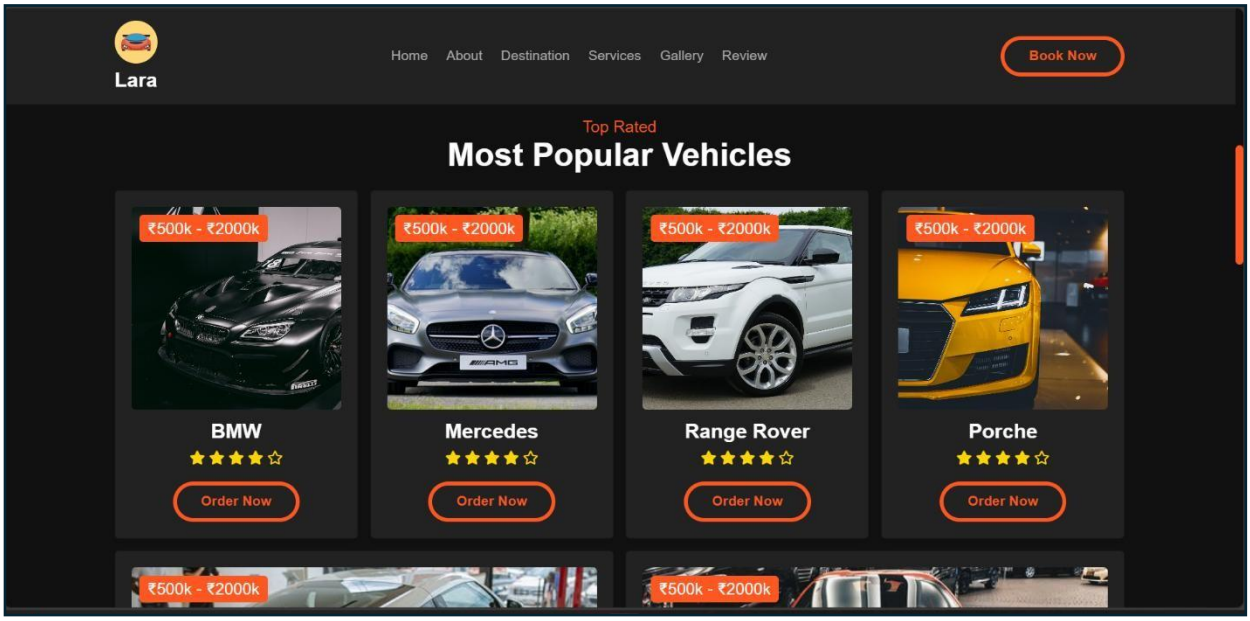

Figure 2 (Top rated)

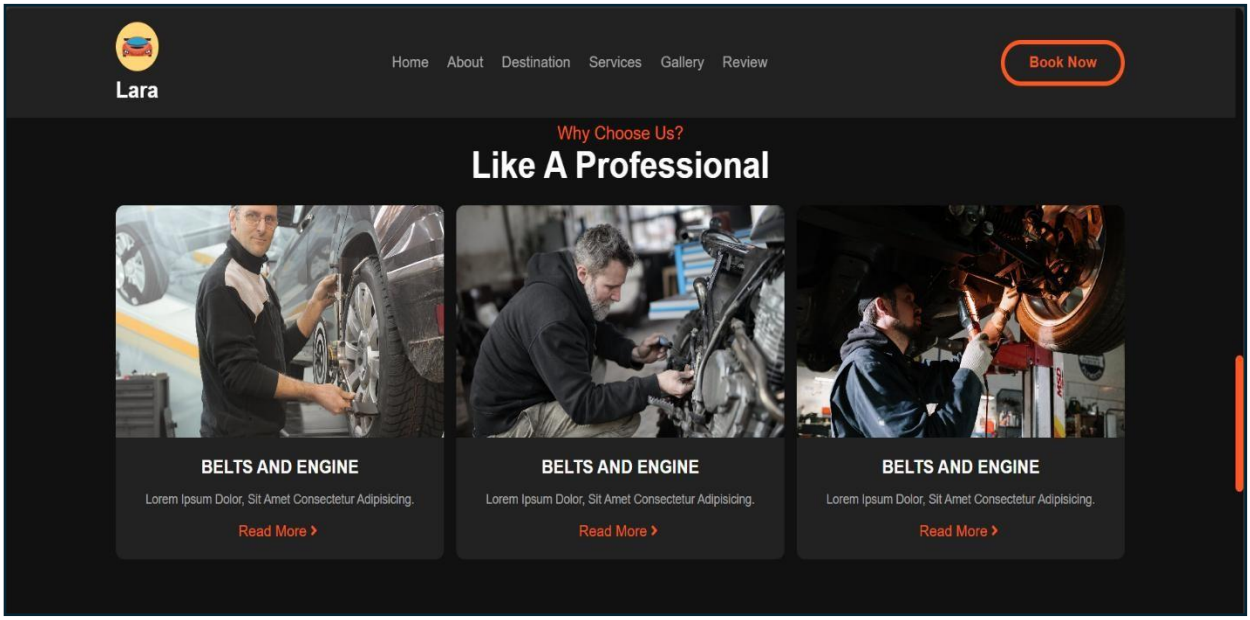

Figure 3 (Why Choose us)

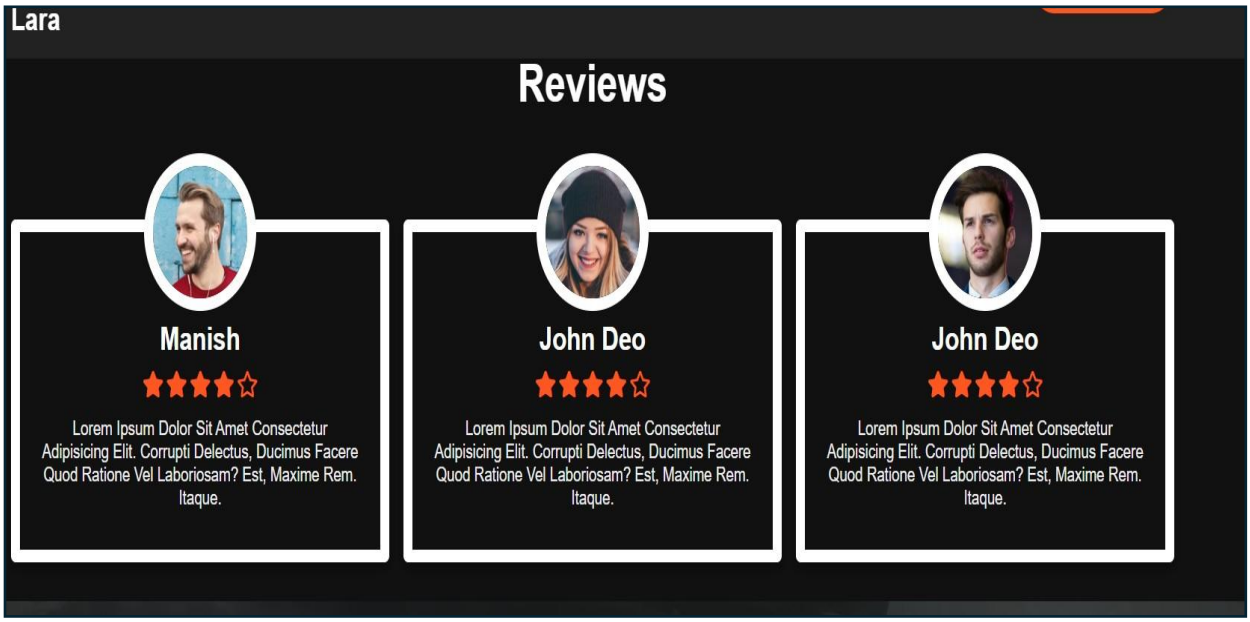

Figure 4 (Review)

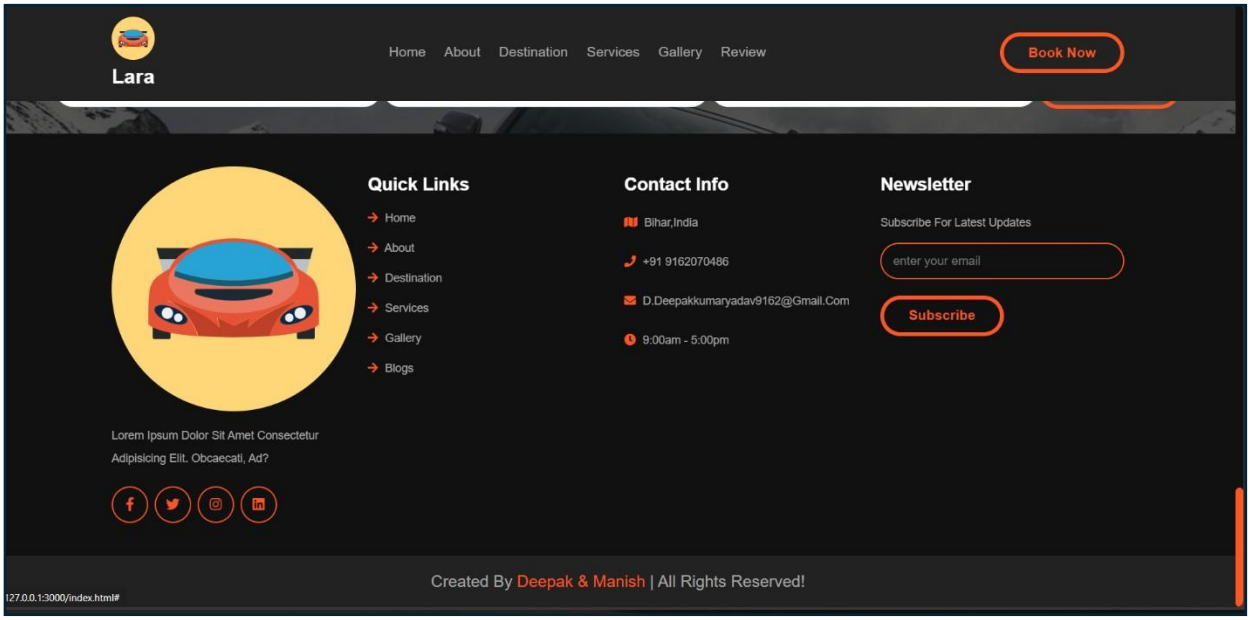

Figure 5 (Footer)

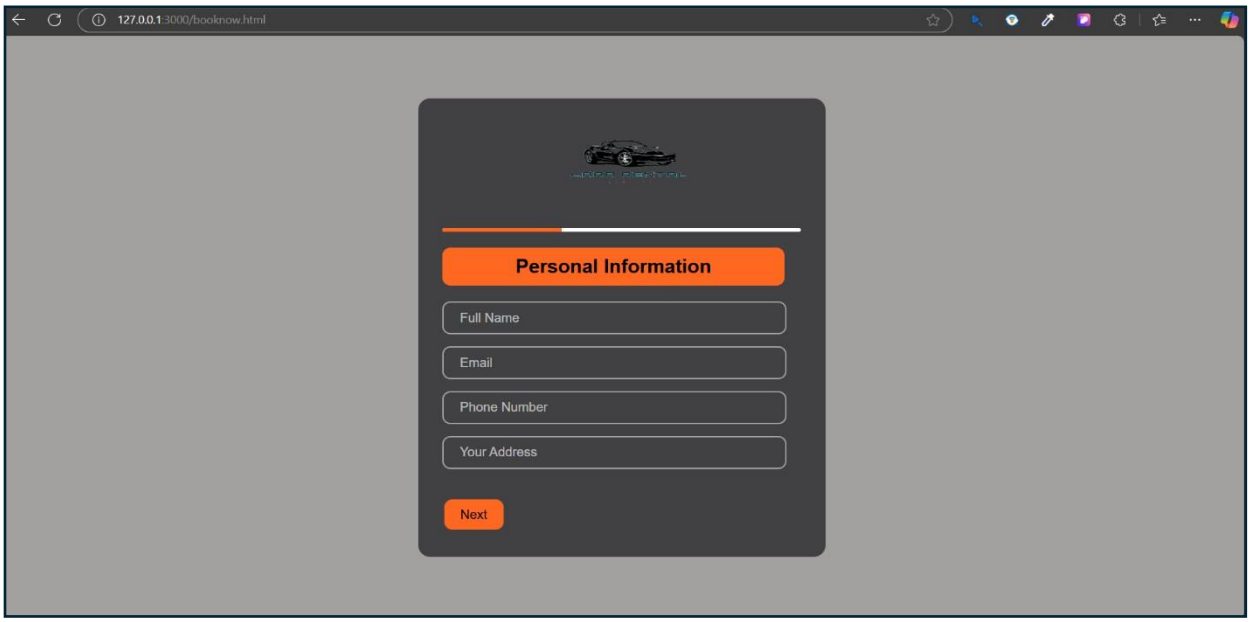

Figure 6 (Booking Section)

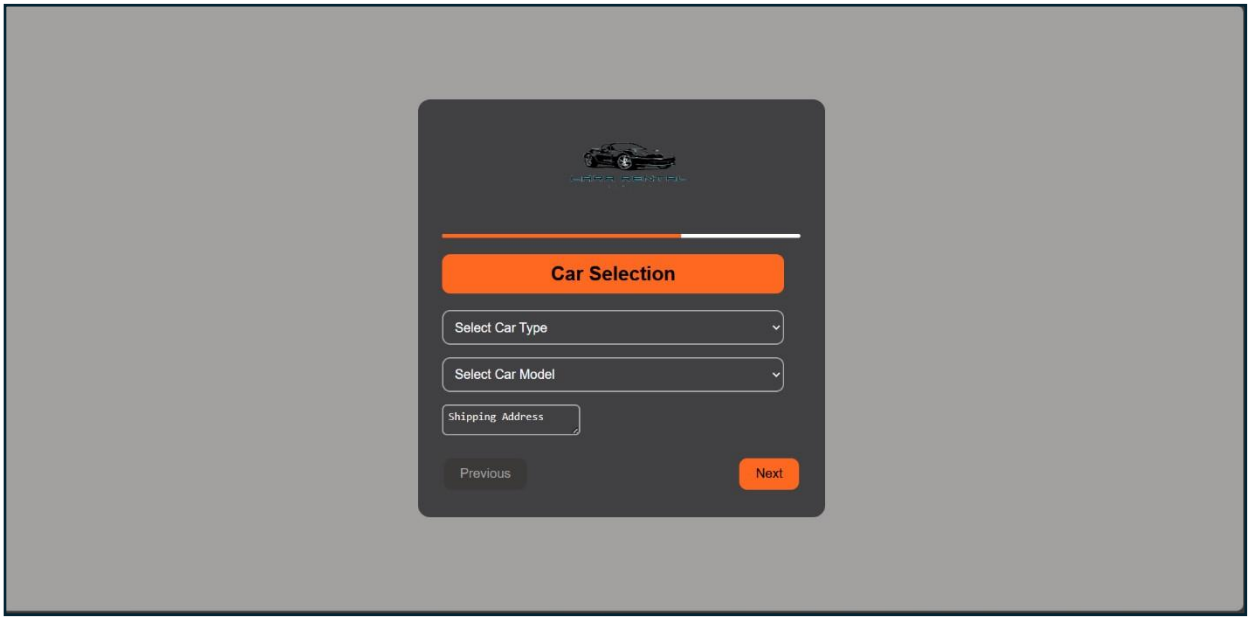

Figure 7 (Booking Section 'Car Selection')

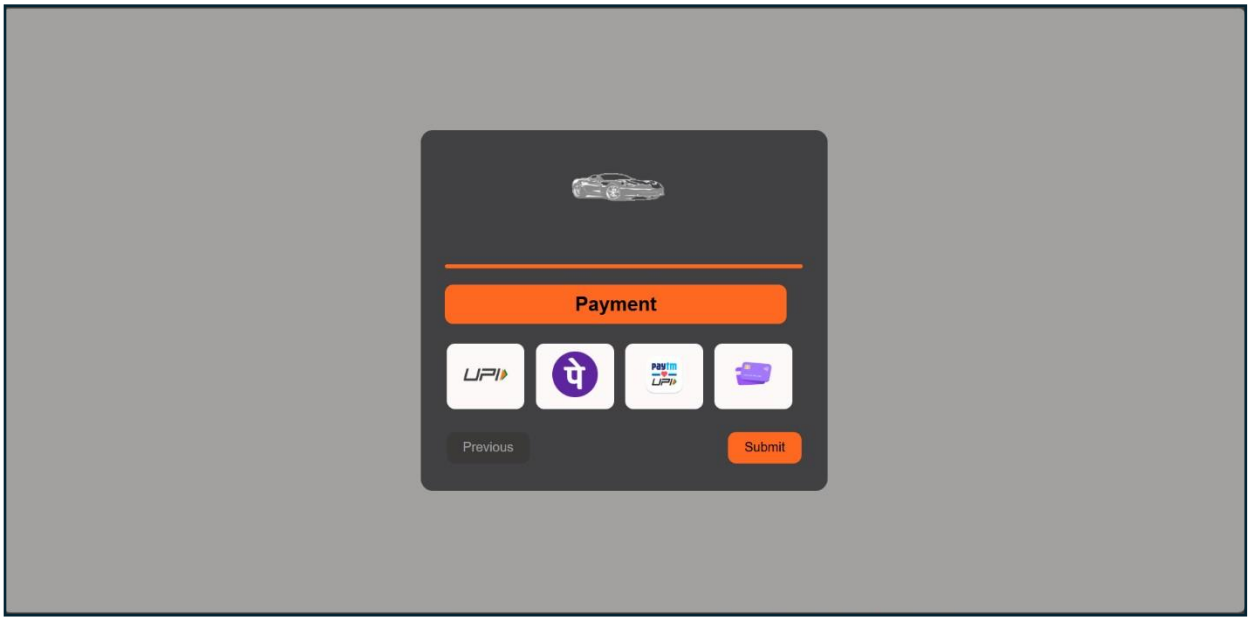

Figure 8 (Booking Section 'Payment')

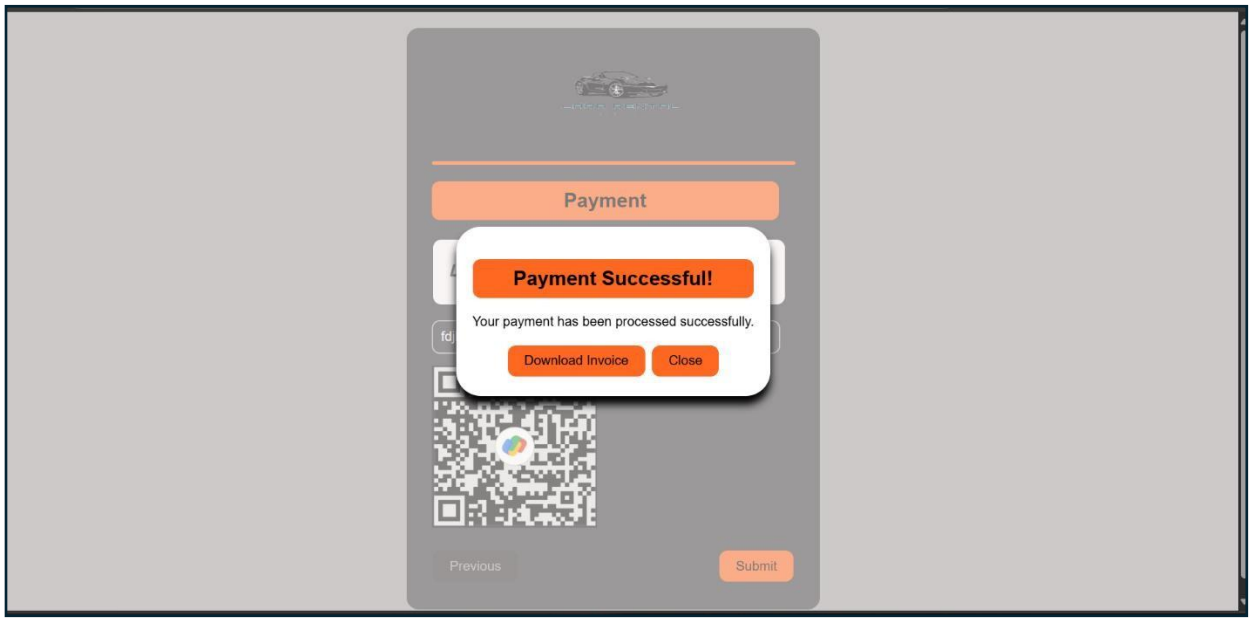

Figure 9 (Booking Section 'Download Invoice')

CHAPTER - 7

SOME BASIC KNOWLEDGE ABOUT THE BROWSERS

A web browser is a software application used to access and view websites and web applications on the internet. It interprets HTML, CSS, JavaScript, and other web technologies to display content in a readable and interactive format for users.

7.1 Popular Web Browsers

Browser	Developer	Description
Google Chrome	Google	Most widely used browser. Known for speed, security, and extensions.
Mozilla Firefox	Mozilla Foundation	Open-source browser with strong privacy features and developer tools.
Microsoft Edge	Microsoft	Built on Chromium, fast performance with Windows integration.
Safari	Apple	Default browser for Apple devices. Known for performance and battery efficiency.
Opera	Opera Software	Lightweight browser with built-in VPN and ad blocker.

7.2 Features of Modern Browsers

- Rendering Engine: Converts HTML/CSS into visual content (e.g., Blink in Chrome, Gecko in Firefox).
- JavaScript Engine: Executes dynamic scripts on web pages (e.g., V8 in Chrome).
- Tab Browsing: Allows multiple pages to open in one window.
- Incognito/Private Mode: Browsing without saving history or cookies.
- Extensions/Add-ons: Additional tools to enhance browser functionality.
- Developer Tools: Built-in tools for inspecting and debugging web pages.

7.3 Importance in Web Development

During the development of the Car Showroom website, testing was done across multiple browsers to ensure:

- Cross-browser compatibility (website looks and works the same)
- Responsive design on different screen sizes
- Consistent behavior of HTML, CSS, and JavaScript features
- Debugging using built-in developer tools

7.4 Conclusion

Understanding the behavior of different web browsers is crucial in web development, especially for a project like the *Car Showroom Website*. Since various browsers interpret and render HTML, CSS, and JavaScript in slightly different ways, it is important to ensure cross-browser compatibility. Rigorous testing across multiple browsers (such as Chrome, Firefox, Edge, and Safari) helps maintain a uniform look and functionality. This approach not only enhances user satisfaction but also reflects professionalism and attention to detail in web development. Ensuring a seamless experience for all users, regardless of their browser choice, directly contributes to the success and accessibility of the website.

Furthermore, cross-browser testing reflects a developer's commitment to quality and professionalism. In a commercial platform like a car showroom website—where users expect seamless navigation, quick loading times, and uniform design—ignoring browser compatibility could result in a loss of potential customers. By addressing browser-specific rendering issues, the website becomes more accessible, reliable, and user-friendly. This approach ultimately contributes to better engagement, customer satisfaction, and trust in the brand's digital presence.

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- PHP.NET https://www.php.net