

A Project Report
On
“Car Rental Website”
A report submitted in partial fulfilment of the requirements for the
Capstone Project

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SANJAY GHODAWAT UNIVERSITY
Kolhapur
(Approved by UGC & Govt. of Maharashtra)



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CERTIFICATE

This is to certify that the project report submitted entitled
“Car Rental Website”

By

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PRN NO: 21SC221491011

Program: MCA

Class: SYMCA

is work done by him and submitted during **2022-2023** academic year, in partial fulfilment of the requirements for **Capstone Project**

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Head of School

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Declaration

I the undersigned solemnly declare that the report of the project work entitled "**Car Rental Website**" which is carried out during my Capstone Project under the supervision of **Ms.Vanchala Sutar**, the statements made and conclusions drawn are an outcome of the project work. I further declare that to the best of my knowledge and belief that the project report does not contain any part of any work which has been submitted for the award of any other degree/diploma/certificate in this University or any other University.

Student Name: Mr.Vivek Prashant Jadhav

Class: SYMCA



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ABSTRACT

- The Car Rental Website Project aims to develop a comprehensive online platform that facilitates the process of renting cars. This project utilizes modern web technologies and design principles to create an intuitive and user-friendly interface, providing customers with a convenient and efficient way to search, compare, and book rental vehicles.
- The website will offer a range of features, including user registration, vehicle listing, availability checking, online reservations, and payment processing. Users will be able to browse through various car models, filter search results based on their preferences (e.g., car type, price range, location), view detailed vehicle information, and make bookings according to their desired rental period.
- The project will incorporate secure payment gateways to ensure the safety and confidentiality of customers' financial transactions. Additionally, it will implement a robust reservation system that allows users to view real-time availability, confirm bookings, and receive confirmation emails with essential rental details.
- The Car Rental Website will also include administrative functionalities to facilitate efficient management of the platform. Admin users will have the ability to manage vehicle inventory, update rental rates, monitor bookings, and generate reports for analysis and decision-making purposes.
- The project will be developed using a combination of front-end and back-end technologies. On the front-end, modern frameworks such as HTML, CSS, and JavaScript will be employed to create a visually appealing and responsive user interface. The back-end will utilize server-side technologies like PHP.

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Chapter 1: Introduction

1.1 Introduction

The Car Rental Website is an online platform designed to simplify the process of renting cars for individuals and businesses. With the advent of technology and the increasing demand for convenient transportation solutions, a robust and user-friendly car rental website has become essential in the modern era.

This website offers a comprehensive solution that allows users to search, compare, and book rental vehicles from the comfort of their homes or offices. It eliminates the need for physically visiting car rental agencies, making the process more efficient and time-saving. Whether it's for a weekend getaway, a business trip, or simply daily commuting needs, the car rental website provides a convenient avenue for accessing a wide range of vehicles to suit diverse requirements.

The main objective of the car rental website is to provide a seamless and hassle-free experience for users. It offers a user-friendly interface that allows customers to easily navigate through the available options, filter their search based on preferences such as car type, location, price range, and other specifications. The website presents detailed information about each vehicle, including features, pricing, availability, and any additional services or amenities provided.

One of the key benefits of using the car rental website is the ability to compare prices and options from multiple car rental agencies in one place. This empowers users to make informed decisions based on their specific needs and budget. Additionally, the website ensures transparency by providing clear terms and conditions, rental policies, and any applicable fees or charges upfront.

To streamline the rental process, the website incorporates an online reservation system. Users can select their desired rental period, check the availability of vehicles in real-time, and proceed with the booking. Secure payment gateways are integrated to facilitate safe and convenient online transactions, ensuring the protection of customers' financial information. Moreover, the car rental website includes administrative functionalities to assist car rental agencies in managing their fleet, tracking reservations, updating rates, and generating reports for analysis and business insights. This enables rental companies to optimize their operations, improve customer service, and make data-driven decisions.

1.2 Problem Definition

1. Poor User Interface (UI): If the website has a cluttered or confusing interface, users may struggle to find the information they need or navigate through the rental process. This can lead to frustration and increased bounce rates.
2. Inefficient Search and Filtering: If the search functionality is not optimized, users may encounter difficulties finding specific car models, locations, or rental durations. The filtering options should allow users to refine their search results based on criteria such as car type, price range, and availability.
3. Inaccurate Availability and Pricing: The website should provide real-time availability and accurate pricing information for each car. If the inventory or pricing data is outdated or inconsistent, customers may face issues during the booking process.
4. Slow Performance: If the website takes a long time to load or responds slowly, users may lose interest and leave. Optimizing the website's code, database queries, and server configuration can help improve performance.
5. Limited Customer Support: A car rental website should have robust customer support channels such as live chat, email, or phone support. If users encounter issues or have questions during the rental process, they need quick and efficient support to resolve their concerns.
6. Complex Booking Process: If the booking process is overly complicated or requires excessive form filling, users may abandon the process before completion. Simplifying the booking process and providing clear instructions can enhance the user experience and increase conversions.
7. Limited Vehicle Information: Users need detailed information about the available cars, including features, specifications, and images. If the website lacks comprehensive vehicle descriptions or has low-quality images, it can impact the user's decision-making process.

1.3 Objective

1. Enable Online Car Booking: The primary objective of a car rental website is to allow users to book rental cars online. The website should provide an intuitive and user-friendly interface for users to search for available cars, select their desired vehicle, specify rental dates and locations, and complete the booking process seamlessly.
2. Display Available Car Inventory: The website should display the available car inventory with detailed information about each vehicle. This includes car models, specifications, features, rental rates, availability status, and any additional charges or terms and conditions.
3. Streamline the Booking Process: The website should aim to simplify and streamline the car booking process. It should guide users through the steps involved in selecting a car, providing personal information, choosing optional add-ons or insurance, and making payment. The objective is to make the booking process quick, convenient, and efficient.
4. Provide Secure Payment Processing: Ensuring secure online transactions is crucial for any car rental website. The objective is to integrate secure payment gateways and implement encryption protocols to protect users' financial information during the payment process. This helps to build trust and confidence among users.
5. Offer Customer Account Management: Creating user accounts allows customers to manage their bookings, view rental history, modify reservations, and access invoices or receipts. The objective is to provide a personalized experience and enable customers to have control over their rental activities.
6. Implement Rental Pricing and Discount Management: The website should support flexible pricing and discount management. It should allow administrators to set rental rates based on factors like car type, duration, and seasonality. The objective is to provide competitive pricing and promotional offers to attract customers and maximize revenue.
7. Gather Customer Feedback and Reviews: The website can incorporate features to collect customer feedback and reviews. This objective is to gather insights, improve service quality, and build credibility by showcasing positive reviews from satisfied customers.

1.4 Scope

- **User Registration and Account Management:** Users should be able to create accounts, log in, and manage their profiles. This includes accessing and updating personal information, viewing rental history, and managing bookings.
- **Car Inventory Management:** The website should have a system to manage the available fleet of cars. This includes adding new vehicles, updating vehicle information (such as model, features, and availability), and removing vehicles from the inventory.
- **Vehicle Search and Booking:** Users should be able to search for available cars based on their preferences, such as location, date, time, and car specifications. The website should display search results with relevant details and allow users to book their chosen vehicle.
- **Booking Management:** The website should provide features to manage the booking process. This includes handling reservations, confirming bookings, sending notifications to users, and managing cancellations or modifications.
- **Pricing and Payment:** The website should calculate rental prices based on factors such as car type, duration, and any additional charges. Users should be able to view pricing details before confirming their booking.
- **Availability Calendar:** The website should display an availability calendar to show users the dates when specific cars are available or booked. This helps users plan their rental period accordingly.
- **Admin Panel:** The website should have an administrative panel to manage the overall functioning of the site. This includes managing user accounts, monitoring bookings, updating car inventory, and generating reports.

Chapter 2: Literature Review & Problem Identification

2.1 Literature Review

- User Experience in Online Car Rental Systems: This study by Johnson et al. (2018) analyzed user experience factors that influence customer satisfaction in online car rental systems. It highlighted the importance of intuitive interfaces, easy navigation, clear pricing information, and responsive customer support.
- Security and Privacy Concerns in E-commerce: Research by Smith et al. (2019) examined security and privacy concerns specific to e-commerce platforms. It emphasized the need for robust security measures to protect customer data during online transactions and the importance of building trust with users.
- Integration of Third-Party Services in Car Rental Systems: This study by Lee et al. (2019) examined the integration of third-party services, such as GPS navigation, insurance providers, and payment gateways, in car rental systems. It emphasized the importance of smooth integration and the impact on customer convenience and operational efficiency.

2.2 Problem Identification

- Poor User Experience: The website may lack an intuitive and user-friendly interface, leading to difficulties in navigating through the rental process. Users may struggle to find information, resulting in frustration and potential abandonment of bookings.
- Inadequate Security Measures: Insufficient security protocols can leave user data vulnerable to unauthorized access, putting customers at risk. This can lead to a lack of trust in the website and deter potential users from making bookings.
- Limited Mobile Responsiveness: If the website is not optimized for mobile devices, it can negatively impact the user experience, as an increasing number of users prefer accessing services through their smartphones or tablets. The website may not adapt well to different screen sizes, causing usability issues.
- Inefficient Booking Process: The booking process may be complex, requiring excessive form filling and steps, which can lead to user frustration and abandonment. A streamlined and simplified booking process is essential to improve user satisfaction and increase conversions.
- Inaccurate or Incomplete Pricing Information: If pricing details are not presented clearly or are inconsistent, users may face confusion and doubt about the final cost of their rental. This can lead to a lack of trust and potentially discourage users from completing their bookings.
- Lack of Integration with Third-Party Services: Inability to seamlessly integrate third-party services, such as GPS navigation or insurance providers, can hinder the convenience and functionality of the car rental website. This may result in additional manual steps for users or operational inefficiencies.
- Insufficient Customer Support: Inadequate customer support channels, such as delayed responses or limited communication options, can lead to unsatisfactory user experiences. Users may have difficulty getting assistance or resolving issues during the rental process.

Chapter 3: Requirement Analysis

3.1 Software Requirement:

- Frontend: HTML, CSS, PHP, Bootstrap, JavaScript
- Backend: MySQL
- Server: Xamp
- Windows: 7, 10, 11
- Vs code

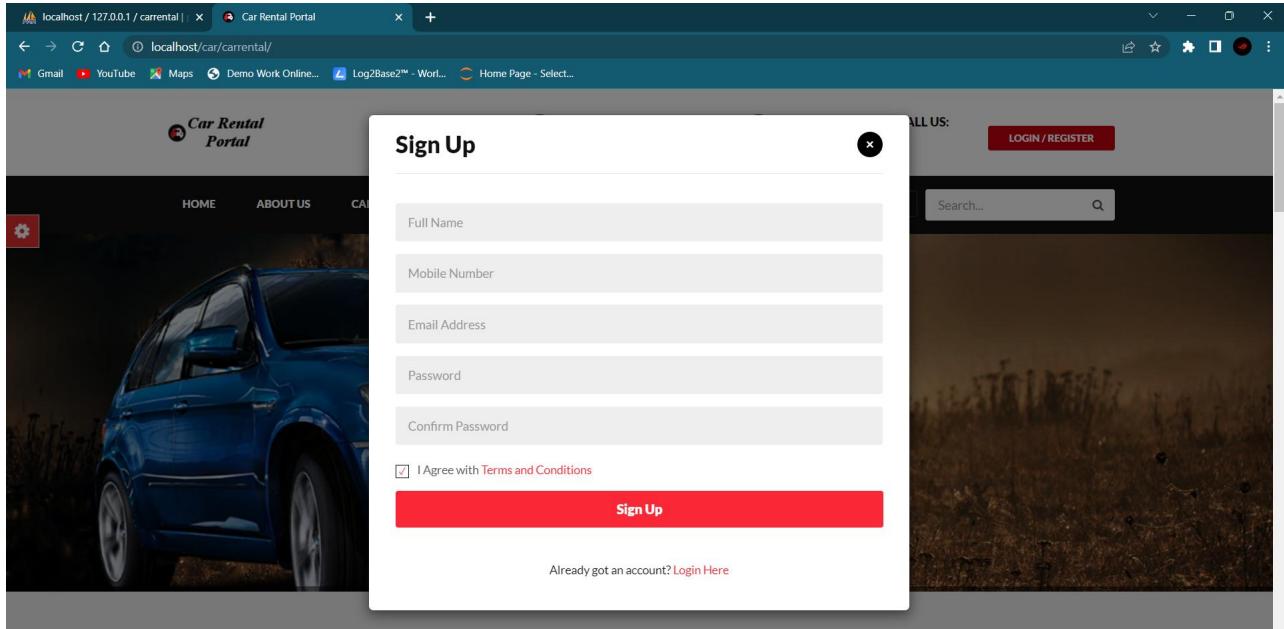
3.2 Hardware Requirement

- Computer or laptop
- Intel(R) Core(TM) i3-Processor
- RAM-2GB Minimum
- Storage-100GB
- Wi-fi Router

Chapter 4: Module Description

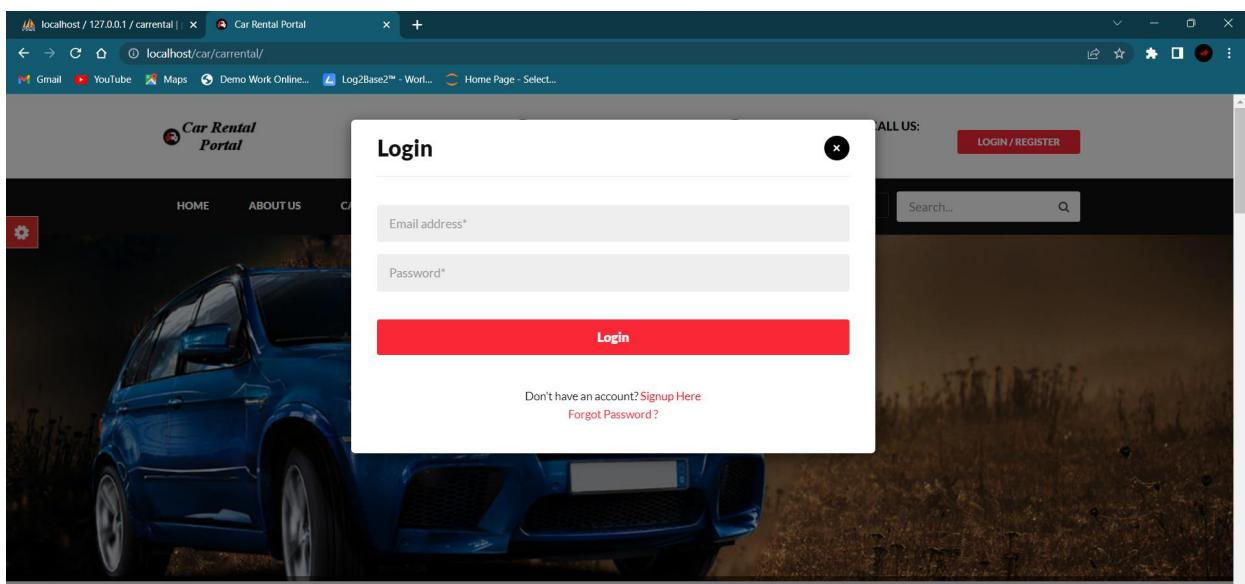
4.1 User Registration

User registration module is used to register the user information and it will be stored in database. The information such as username, email, Mobile number and password collected. The collected details are sent to the database for the purpose of login.



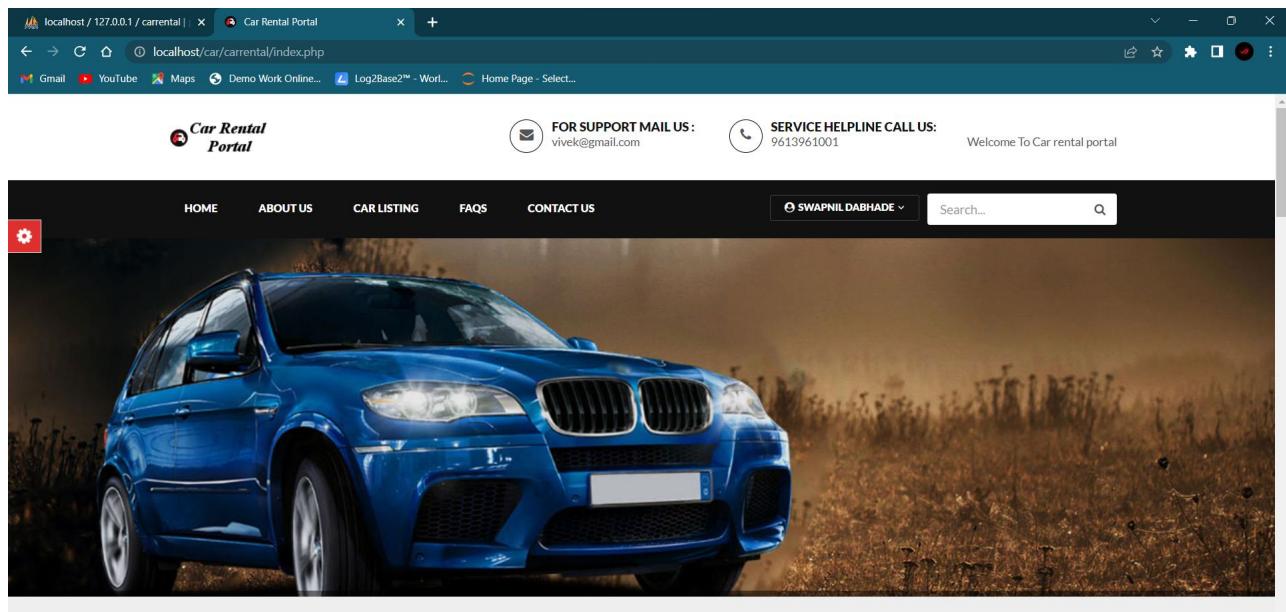
4.2 User Login

The user login module is used to log in of the user and will continuous the other process. If user is already registered he/her can directly login by entering username and password.



4.3 User-Home

Home page module is a combination of all pages here we can access all pages of user portal. It contains home, about us, services , car listing and contact us web pages in one page that is home page.



4.4 Update Password

User will Change there Password.

A screenshot of a user profile page showing the "Update password" section. The top right shows a profile picture of a green car and the name "swapnil dabhadae". Below the profile is a "Autospot" button. On the left, there's a sidebar with a gear icon and links for Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out. The main content area has four input fields labeled "Current Password", "Password", and "Confirm Password", each with a corresponding input field below it. A red "Update" button is at the bottom.

4.5 Find The Best Car

User can see details of car and also rent per day.

The screenshot shows a web browser window titled "Car Rental Portal" displaying a list of cars for rental. The page has a header with the title "Find the Best CarForYou". Below the header, there is a note about the use of Lorem Ipsum text. A red "New Car" button is centered above three initial car cards. The cards are arranged in a grid:

- Maruti Suzuki Wagon R** Rs 500 /Day
Petrol, 2019 Model, 5 seats
Description: Maruti Wagon R Latest Updates Maruti Suzuki has launched the BS6 Wa
- BMW 5 Series** Rs 1000 /Day
Petrol, 2018 Model, 5 seats
Description: BMW 5 Series price starts at ₹ 55.4 Lakh and goes upto ₹ 68.39 Lakh. T
- Audi Q8** Rs 3000 /Day
Petrol, 2017 Model, 5 seats
Description: As per ARAI, the mileage of Q8 is 0 kmpl. Real mileage of the vehicle

Below this row, there are two more rows of car cards:

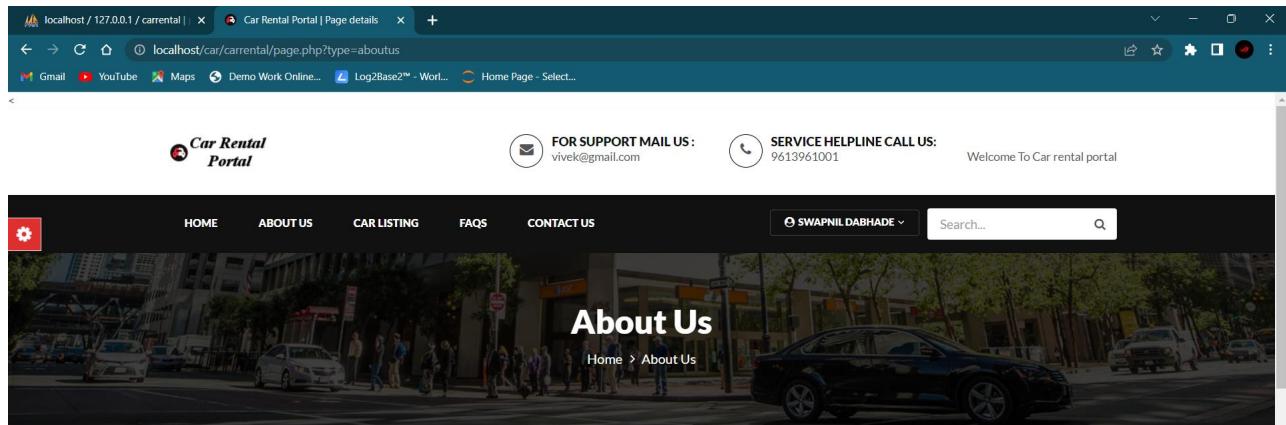
- Nissan Kicks** Rs 800 /Day
Petrol, 2020 Model, 5 seats
Description: Latest Update: Nissan has launched the Kicks 2020 with a new turbochar
- Nissan GT-R** Rs 2000 /Day
Petrol, 2019 Model, 5 seats
Description: The GT-R packs a 3.8-litre V6 twin-turbocharged petrol, which puts ou
- Nissan Sunny 2020** Rs 400 /Day
CNG, 2018 Model, 5 seats
Description: Value for money product and it was so good It is more spacious than ot

At the bottom of the page, there are two more car cards:

- Toyota Fortuner** Rs 3000 /Day
Petrol, 2020 Model, 5 seats
Description: Toyota Fortuner Features: It is a premium seven-seater SUV loaded with
- Maruti Suzuki Vitara Brezza** Rs 600 /Day
Petrol, 2018 Model, 5 seats
Description: The new Vitara Brezza is a well-rounded package that is feature-loaded

4.6 About Us

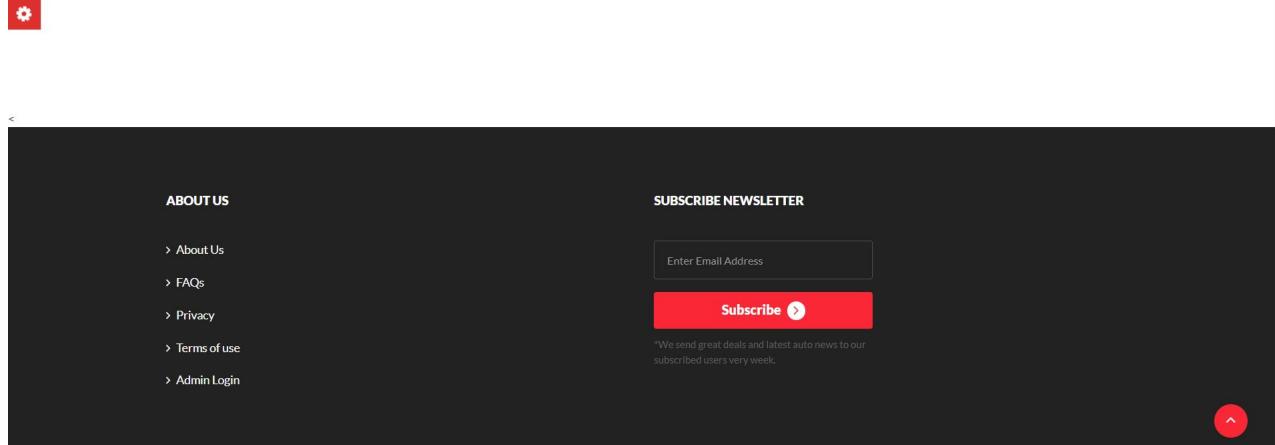
About-us module shows information about the Company.



About Us

We offer a varied fleet of cars, ranging from the compact. All our vehicles have air conditioning, power steering, electric windows. All our vehicles are bought and maintained at official dealerships only. Automatic transmission cars are available in every booking class. As we are not affiliated with any specific automaker, we are able to provide a variety of vehicle makes and models for customers to rent.

Our mission is to be recognised as the global leader in Car Rental for companies and the public and private sector by partnering with our clients to provide the best and most efficient Cab Rental solutions and to achieve service excellence.



4.6 Car Listing

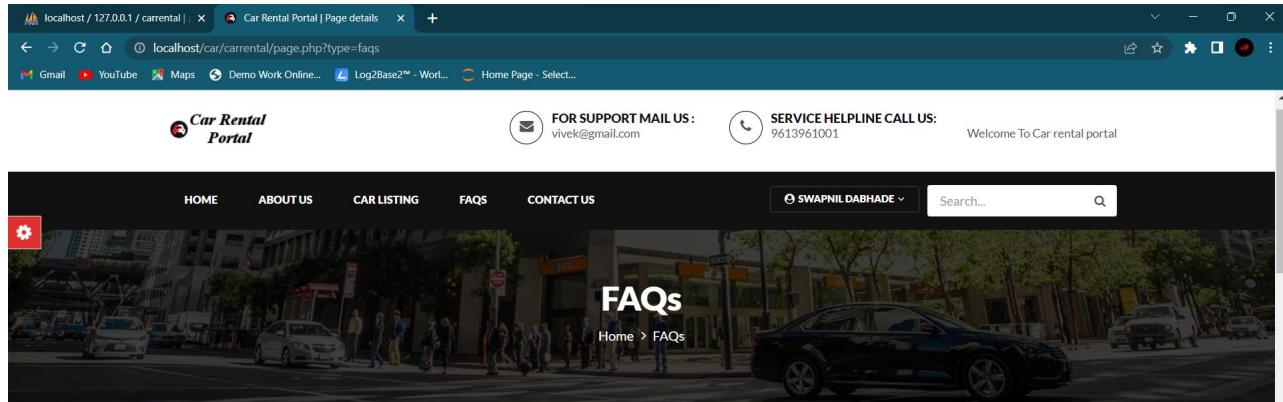
Create a database to store car listings. Each listing should include relevant details such as make, model, year, price, mileage, description, photos, seller information, and any additional features or specifications.

Implement search functionality that enables users to search for cars based on various criteria such as make, Car Brand And Fuel Type etc.

The screenshot shows a web browser window with the URL [localhost / 127.0.0.1 / corrental | Car Rental Portal | Car Listing](http://localhost:127.0.0.1/corrental/carlisting.php). The page is titled "Car Listing" and displays a grid of car listings. At the top left is a "Find Your Car" search form with dropdowns for "Select Brand" and "Select Fuel Type", and a red "Search Car" button. To the right is a section titled "Recently Listed Cars" showing two items: "Maruti, Maruti Suzuki Vitara Brezza" (Rs 600 Per Day) and "Toyota, Toyota Fortuner" (Rs 3000 Per Day). The main content area shows "8 Listings" with three visible cards: "Maruti, Maruti Suzuki Wagon R" (Rs 500 Per Day), "BMW, BMW 5 Series" (Rs 1000 Per Day), and another "Maruti, Maruti Suzuki Wagon R" (Rs 500 Per Day). Each card includes a thumbnail image, the car model, price, seating capacity (5 seats), model year (2019/2018), fuel type (Petrol), and a "View Details" button. The header of the page includes the "Car Rental Portal" logo, support mail (vivek@gmail.com), service helpline (9613961001), and user "SWAPNIL DABHADE". A navigation bar at the top has links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. A search bar is also present at the top right.

4.8 FAQS

Addressing common questions and providing relevant information upfront, an FAQ section can help improve user satisfaction and reduce the number of inquiries.



FAQs

1. How old do I need to be to rent a car?

To rent a car, you generally need to be at least 21 years old. However, the minimum age requirement may vary depending on the rental company and location. Some rental companies may impose additional fees or restrictions for drivers under 25 years of age.

2. What documents do I need to rent a car?

You will typically need the following documents to rent a car:

- A valid driver's license: You must have a driver's license issued by your country of residence. If your license is in a language other than English, you may need an international driver's permit.

- Identification: You will need a valid passport or government-issued identification document.

- Credit card: Most car rental companies require a valid credit card in the driver's name to cover the rental charges and any additional fees or security deposits.

3. Can I add an additional driver to the rental?

Yes, many car rental companies allow you to add additional drivers to the rental agreement. Additional drivers must meet the age and license requirements and may be subject to an additional fee. They will also need to provide their driver's license and identification at the time of rental.

4. What happens if I return the car late?

Returning the car late may result in additional charges. Most rental companies have a grace period of a few hours, but if you exceed that time, you may be charged for an extra day. It's important to communicate with the rental company if you anticipate being late to avoid any issues.

5. What is the fuel policy for rental cars?

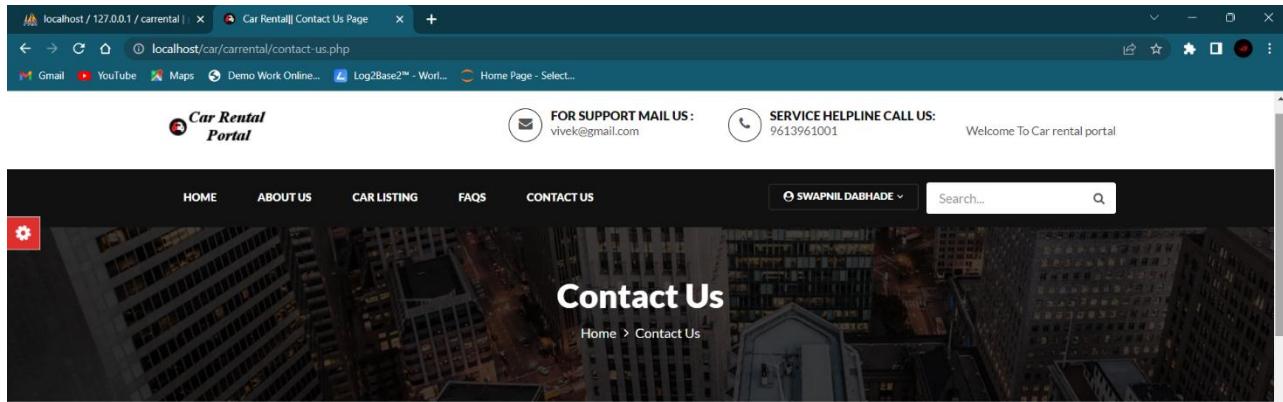
Rental cars typically have a fuel policy that requires you to return the vehicle with the same amount of fuel as when you picked it up. If you return the car with less fuel, the rental company may charge you for refueling at a higher rate or add a service fee. Some companies offer options to prepay for fuel, allowing you to return the car with an empty tank.

6. What should I do if I have an accident or the car breaks down?

In the event of an accident or breakdown, contact the car rental company immediately. They will provide guidance on what steps to take and may arrange for roadside assistance or a replacement vehicle if necessary. It's important to familiarize yourself with the rental company's policies and emergency contact information before starting your rental.

4.9 Contact Us

User contact module is used to user can contact with admin for the service.



Get in touch using the form below

Full Name *

Email Address *

Phone Number *

Message *

Send Message

Contact Info

- 100ft road behind D Mart,Sangli
- vivek@gmail.com
- 9613961001

4.10 Profile Settings

The screenshot shows a web browser window for the 'Car Rental Portal' at localhost. The title bar says 'localhost / 127.0.0.1 / carental | Car Rental Portal | My Profile'. The page header includes a logo for 'Car Rental Portal', support contact information ('FOR SUPPORT MAIL US: vivek@gmail.com'), service helpline details ('SERVICE HELPLINE CALL US: 9613961001'), and a welcome message ('Welcome To Car rental portal'). A navigation menu at the top has links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. A search bar is also present. The main content area features a large banner with a green sports car and the text 'Your Profile' over it. Below the banner, the user's profile information is displayed: a thumbnail of a green sports car, the name 'swapnil dabhadhe', and a green button labeled 'Autospot'. On the left, a sidebar contains links for Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out. The main form area is titled 'GENERAL SETTINGS' and contains fields for Reg Date (2023-06-05 11:31:19), Full Name (swapnil dabhadhe), Email Address (swap@gmail.com), Phone Number (2123456789), Date of Birth (09/08/2000), Your Address (Palus), Country (India), and City (Sangli). A red 'Save Changes' button is at the bottom.

4.11 My_Booking:

User Will See there Booking in My_Booking and also See the invoice.

The screenshot shows the 'My Booking' section of a car rental portal. At the top, there's a navigation bar with links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. On the right, there are support details: 'FOR SUPPORT MAIL US: vivek@gmail.com', 'SERVICE HELPLINE CALL US: 9613961001', and a 'Welcome To Car rental portal'. Below the navigation is a search bar with placeholder 'Search...' and a magnifying glass icon. The main content area has a dark background with foliage images. A profile picture of a green sports car is displayed next to the user's name, 'swapnil dabhadhe', and a green button labeled 'Autospot'. To the left, a sidebar menu lists Profile Settings, Update Password, My Booking (which is highlighted in red), Post a Testimonial, My Testimonials, and Sign Out. The 'My Booking' section shows a booking entry for 'Booking No #240941659' for a 'BMW , BMW 5 Series' car from June 6 to June 9, 2023. The status is 'Confirmed'. A message box says 'Message: urgent REQUIREMENT'. At the bottom, an 'Invoice' table provides a breakdown of the rental costs.

Car Name	From Date	To Date	Total Days	Rent / Day
BMW 5 Series, BMW	2023-06-06	2023-06-09	3	1000
Grand Total				3000

4.12 Post_Testimonial

Testimonials provide social proof and demonstrate the positive experiences of customers. Customer can post testimonial.

The screenshot shows a web browser window for a 'Car Rental Portal' at localhost. The title bar says 'localhost / 127.0.0.1 / carental | Car Rental Portal |Post testimonial'. The page header includes the portal logo, support mail information (FOR SUPPORT MAIL US: vivek@gmail.com), service helpline (SERVICE HELPLINE CALL US: 9613961001), and a welcome message (Welcome To Car rental portal). A navigation menu with links to HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US is visible. Below the menu is a large banner with the text 'Post Testimonial' and a breadcrumb trail 'Home > Post Testimonial'. On the left, there's a sidebar with profile settings like Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out. The main content area features a user profile box for 'swapnil dabhade' with a car icon and 'Autospot' button, followed by a 'POST A TESTIMONIAL' form with a text area labeled 'Testimoniail' and a 'Save' button.

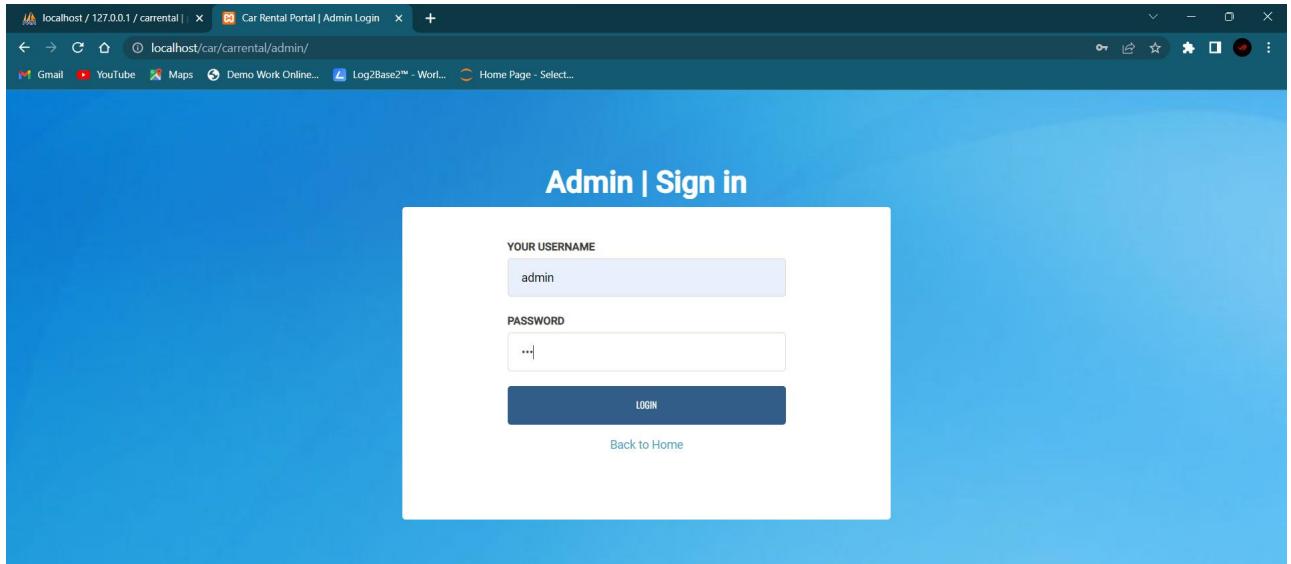
4.13 My_Testimonial

Show about posted Testimonial.

The screenshot shows a web browser window for the 'Car Rental Portal' at localhost. The main content area displays a banner titled 'My Testimonials' with a sub-banner 'Home > My Testimonials'. Below the banner, there is a user profile section for 'swapnil dabhade' featuring a car icon and the name 'swapnil dabhade' with a green 'Autospot' button. To the left, a sidebar lists account management options: Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials (which is selected and highlighted in blue), and Sign Out. At the top, there are support links for email and phone, and a search bar.

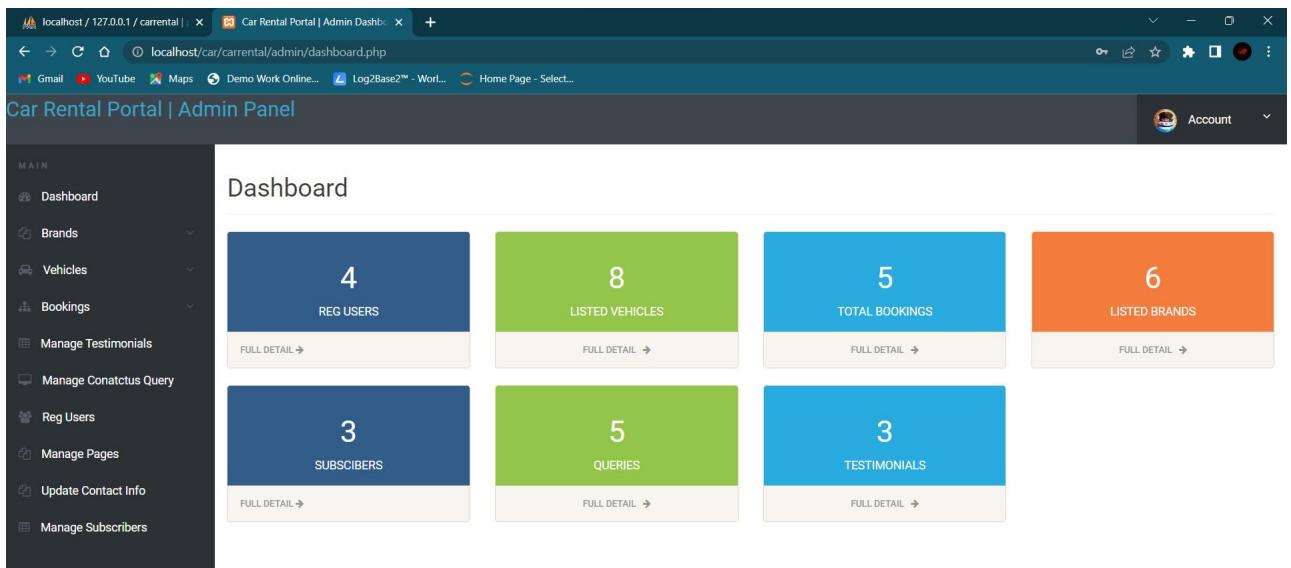
4.14 Admin Login

The Admin login module is used to login of the Admin can manage all the process of user's.



4.15 Admin Dashboard

Admin dashboard is used to shows the all activities records of user . It is useful to manage the record of all these activities.



4.16 Brands-

•Create_Brand:

Admin will create the car brands here.

The screenshot shows a web browser window titled 'Car Rental Portal | Admin Create'. The URL is 'localhost/car/currental/admin/create-brand.php'. The page has a dark header bar with the title and a light-colored sidebar on the left labeled 'MAIN' containing various admin menu items like Dashboard, Brands, Vehicles, Bookings, etc. The main content area is titled 'Create Brand' and contains a 'CREATE BRAND' form with a 'Brand Name' input field and a 'Submit' button.

•Manage_Brands:

Admin Will Manage the Car brands.

The screenshot shows a web browser window titled 'Car Rental Portal | Admin Manager'. The URL is 'localhost/car/currental/admin/manage-brands.php'. The page has a dark header bar with the title and a light-colored sidebar on the left labeled 'MAIN' containing various admin menu items like Dashboard, Brands, Vehicles, Bookings, etc. The main content area is titled 'Manage Brands' and displays a table titled 'LISTED BRANDS' with columns for #, Brand Name, Creation Date, Updation date, and Action. The table lists six entries: Maruti, BMW, Audi, Nissan, Toyota, and Volkswagen. At the bottom, it shows 'Showing 1 to 6 of 6 entries' and navigation buttons for PREVIOUS, 1, and NEXT.

#	Brand Name	Creation Date	Updation date	Action
1	Maruti	2023-06-13 21:54:34	2023-06-29 20:18:10	<input type="checkbox"/> <input type="button" value="X"/>
2	BMW	2023-05-17 21:54:50	2023-05-24 20:18:48	<input type="checkbox"/> <input type="button" value="X"/>
3	Audi	2023-05-10 21:55:03	2023-05-24 20:19:39	<input type="checkbox"/> <input type="button" value="X"/>
4	Nissan	2017-06-18 21:55:13		<input type="checkbox"/> <input type="button" value="X"/>
5	Toyota	2017-06-18 21:55:24		<input type="checkbox"/> <input type="button" value="X"/>
6	Volkswagen	2023-05-18 11:52:13	2023-06-29 20:20:10	<input type="checkbox"/> <input type="button" value="X"/>

4.17 Vehicles –

• Post Vehicles :

Admin Will Post the new Vehicles, add vehicle details and accessories.

The screenshot shows the 'Post A Vehicle' form. On the left is a dark sidebar with navigation links like Dashboard, Brands, Vehicles, Bookings, Manage Testimonials, Manage Contact Query, Reg Users, Manage Pages, Update Contact Info, and Manage Subscribers. The main area has a title 'Post A Vehicle' and a 'BASIC INFO' section with fields for 'Vehicle Title*' (text input), 'Select Brand*' (dropdown), 'Vehical Overview*' (text area), 'Price Per Day(in USD)*' (text input), 'Select Fuel Type*' (dropdown), 'Model Year*' (text input), and 'Seating Capacity*' (text input). Below this is an 'Upload Images' section with five 'Choose File' inputs for images 1 through 5. Underneath are checkboxes for vehicle features: Air Conditioner, Power Door Locks, AntiLock Braking System, Brake Assist; Power Steering, Driver Airbag, Passenger Airbag, Power Windows; CD Player, Central Locking, Crash Sensor, Leather Seats. At the bottom are 'Cancel' and 'Save changes' buttons.

• Manage Vehicles :

Admin can Manage Vehicle details.

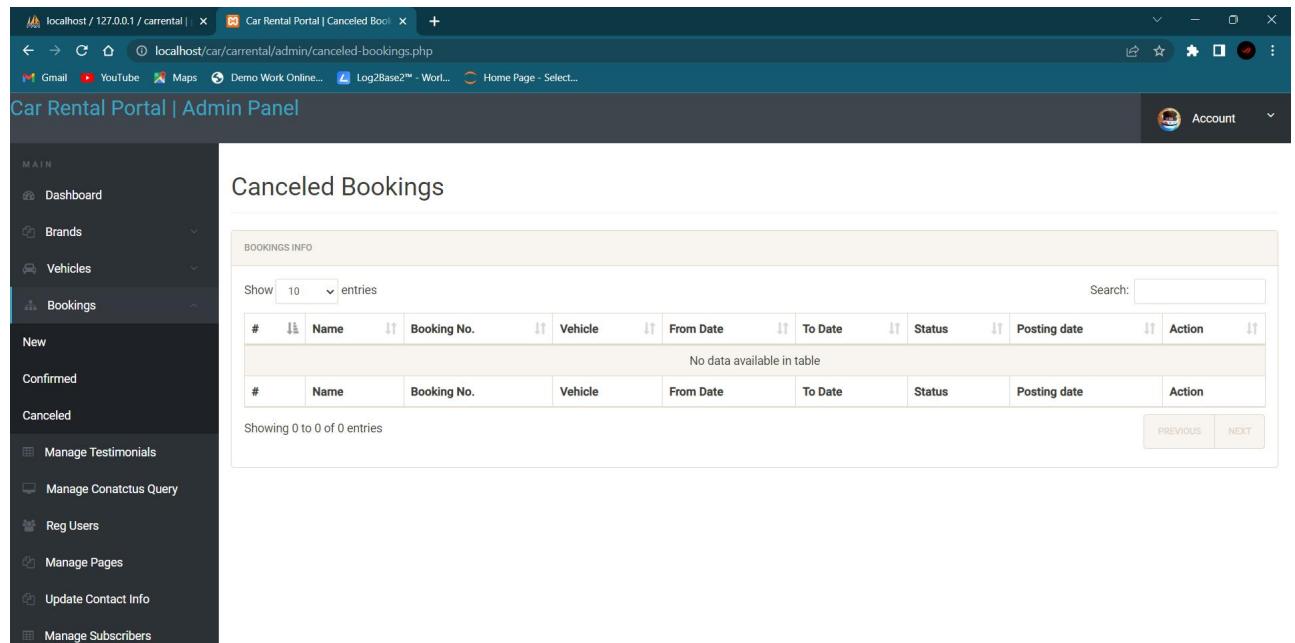
The screenshot shows the 'Manage Vehicles' page. The sidebar includes 'Create Brand', 'Manage Brands', 'Vehicles' (selected), 'Post a Vehicle', 'Manage Vehicles', 'Bookings', 'Manage Testimonials', 'Manage Contact Query', 'Reg Users', 'Manage Pages', and 'Update Contact Info'. The main area has a title 'Manage Vehicles' and a 'VEHICLE DETAILS' table. The table has columns: #, Vehicle Title, Brand, Price Per day, Fuel Type, Model Year, and Action. It lists 8 entries. Below the table is a search bar and a message 'Showing 1 to 8 of 8 entries'. At the bottom right are 'PREVIOUS' and 'NEXT' buttons.

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

4.18 Bookings

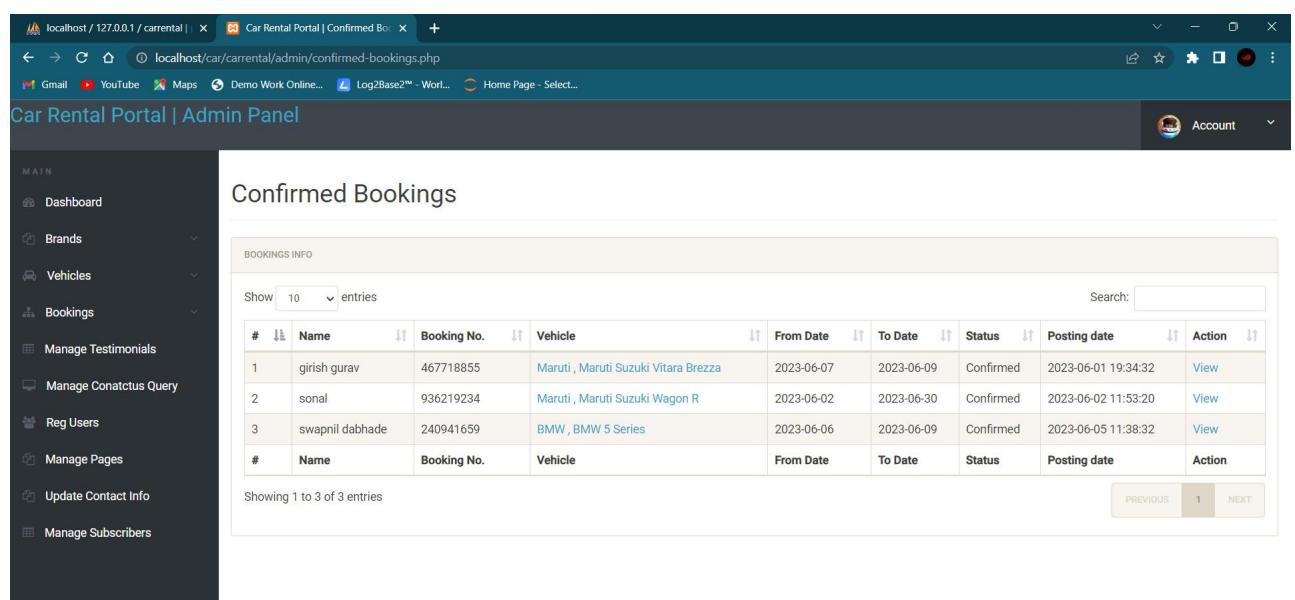
Admin will see the Booking details And also confirm or remove the booking.

• New Booking :



The screenshot shows the 'Car Rental Portal | Admin Panel'. The left sidebar has a 'Bookings' section with 'New', 'Confirmed', and 'Canceled' options, where 'Canceled' is selected. The main content area is titled 'Canceled Bookings' and displays a table with columns: #, Name, Booking No., Vehicle, From Date, To Date, Status, Posting date, and Action. A message 'No data available in table' is shown above the table. Below the table, it says 'Showing 0 to 0 of 0 entries'. Navigation buttons 'PREVIOUS' and 'NEXT' are at the bottom right.

• Confirmed Booking :



The screenshot shows the 'Car Rental Portal | Admin Panel'. The left sidebar has a 'Bookings' section with 'New', 'Confirmed', and 'Canceled' options, where 'Confirmed' is selected. The main content area is titled 'Confirmed Bookings' and displays a table with columns: #, Name, Booking No., Vehicle, From Date, To Date, Status, Posting date, and Action. The table contains three entries: 1. girish gurav (Booking No. 467718855, Maruti Suzuki Vitara Brezza, From Date 2023-06-07, To Date 2023-06-09, Status Confirmed, Posting date 2023-06-01 19:34:32, Action View). 2. sonal (Booking No. 936219234, Maruti Suzuki Wagon R, From Date 2023-06-02, To Date 2023-06-30, Status Confirmed, Posting date 2023-06-02 11:53:20, Action View). 3. swapnil dabhade (Booking No. 240941659, BMW 5 Series, From Date 2023-06-06, To Date 2023-06-09, Status Confirmed, Posting date 2023-06-05 11:38:32, Action View). Below the table, it says 'Showing 1 to 3 of 3 entries'. Navigation buttons 'PREVIOUS' and 'NEXT' are at the bottom right.

•Canceled Booking :

Car Rental Portal | Admin Panel

MAIN

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

Canceled Bookings

#	Name	Booking No.	Vehicle	From Date	To Date	Status	Posting date	Action
No data available in table								

Showing 0 to 0 of 0 entries

PREVIOUS 1 NEXT

4.19 Manage Testimonials:

Admin can Manage Testimonials i.e. admin can activate or deactivate testimonials here.

Car Rental Portal | Admin Panel

MAIN

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

Manage Testimonials

#	Name	Email	Testimonials	Posting date	Action
1	girish gurav	gg@gmail.com	Good Cars	2023-06-01 19:59:53	Inactive
2	swapnil dabhade	swap@gmail.com	Good Conditions of car	2023-06-05 11:41:21	Active

Showing 1 to 2 of 2 entries

PREVIOUS 1 NEXT

4.20 Manage Contact Query:

Admin will see the contact message here comes from customers.

The screenshot shows the 'Manage Contact Us Queries' page. On the left, there's a sidebar with a dark background and white text, listing various admin functions like Dashboard, Brands, Vehicles, Bookings, Manage Testimonials, Manage Contact Us Query, Reg Users, Manage Pages, Update Contact Info, and Manage Subscribers. The main content area has a light gray header 'Manage Contact Us Queries'. Below it is a table titled 'USER QUERIES' with the following columns: #, Name, Email, Contact No, Message, Posting date, and Action. There are five entries listed:

#	Name	Email	Contact No	Message	Posting date	Action
1	Kunal	kunal@gmail.com	7977779798	I want to know you branch in Chandigarh?	2023-06-28 15:04:51	Read
2	girish gurav	gg@gmail.com	12023456	sangli	2023-06-01 22:25:47	Read
3	girish gurav	gg@gmail.com	12023456	sangli	2023-06-01 22:27:41	Read
4	girish gurav	gg@gmail.com	12023456	sangli	2023-06-01 22:28:19	Pending
5	swapnil dabhade	swap@gmail.com	2123456789	want information about all cars	2023-06-05 11:40:02	Pending

At the bottom, it says 'Showing 1 to 5 of 5 entries' and has buttons for PREVIOUS, 1, and NEXT.

4.21 Reg User :

Admin will see the user details.

The screenshot shows the 'Registered Users' page. The sidebar is identical to the previous one. The main content area has a light gray header 'Registered Users'. Below it is a table titled 'REG USERS' with the following columns: #, Name, Email, Contact no, DOB, Address, City, Country, and Reg Date. There are four entries listed:

#	Name	Email	Contact no	DOB	Address	City	Country	Reg Date
1	girish gurav	gg@gmail.com	1234567890					2023-06-01 19:31:08
2	sonal	sonal@gmail.com	9404479418					2023-06-02 11:47:13
3	swapnil dabhade	swap@gmail.com	2123456789					2023-06-05 11:31:19
4	vijay	vijay@gmail.com	1234567890					2023-06-07 11:18:02

At the bottom, it says 'Showing 1 to 4 of 4 entries' and has buttons for PREVIOUS, 1, and NEXT.

4.22 Manage pages:

Admin will Manage Terms and condition , FAQS, About Us Pages Here.

The screenshot shows the 'Manage Pages' section of the Admin Panel. On the left is a sidebar with various management options. In the center, a form titled 'FORM FIELDS' contains a dropdown menu labeled 'selected Page' with options like 'terms and condition', 'privacy and policy', and 'aboutus'. Below the dropdown is a rich text editor toolbar. The main content area displays the 'Terms and Conditions for Car Rental Service' page, which includes a brief description of the terms and conditions, a section for '1. Rental Eligibility', and a section for '2. Vehicle Rental'.

4.23 Update Contact Info:

Admin can Update there information like there address, email , contact number.

The screenshot shows the 'Update Contact Info' section of the Admin Panel. The sidebar on the left remains the same. The main form has three input fields: 'Address' (value: '100ft road behind D Mart, Sangli'), 'Email id' (value: 'vivek@gmail.com'), and 'Contact Number' (value: '9613961001'). A blue 'Update' button is located at the bottom right of the form.

4.24 Manage Subscribers:

Admin can see subscribers list.

The screenshot shows a web browser window titled "Car Rental Portal | Admin Manager". The left sidebar is labeled "MAIN" and contains the following navigation items: Dashboard, Brands, Vehicles, Bookings, Manage Testimonials, Manage Conatctus Query, Reg Users, Manage Pages, Update Contact Info, and Manage Subscribers. The main content area is titled "Manage Subscribers" and features a table titled "SUBSCRIBERS DETAILS". The table has columns for "#", "Email Id", "Subscription Date", and "Action". It lists three entries: 1. vivek@gmail.com (Subscription Date: 2023-06-01 19:29:46), 2. swap@gmail.com (Subscription Date: 2023-06-05 11:40:21), and 3. asim@gmail.com (Subscription Date: 2023-06-05 11:40:31). Below the table, it says "Showing 1 to 3 of 3 entries". At the bottom right, there are buttons for "PREVIOUS", "1", and "NEXT".

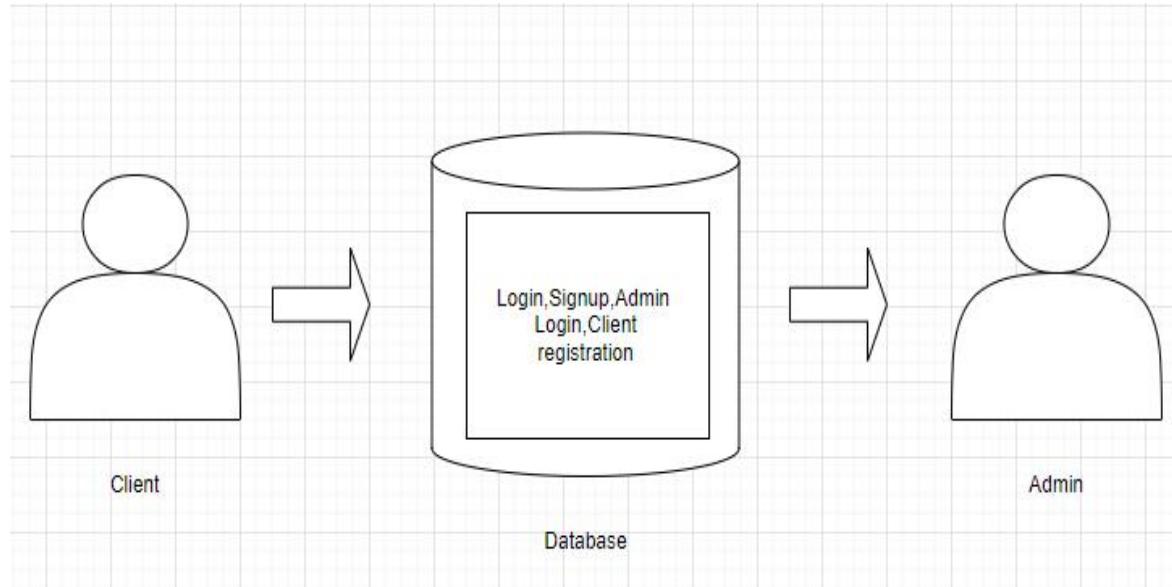
4.25 :Change Password:

Admin can change password.

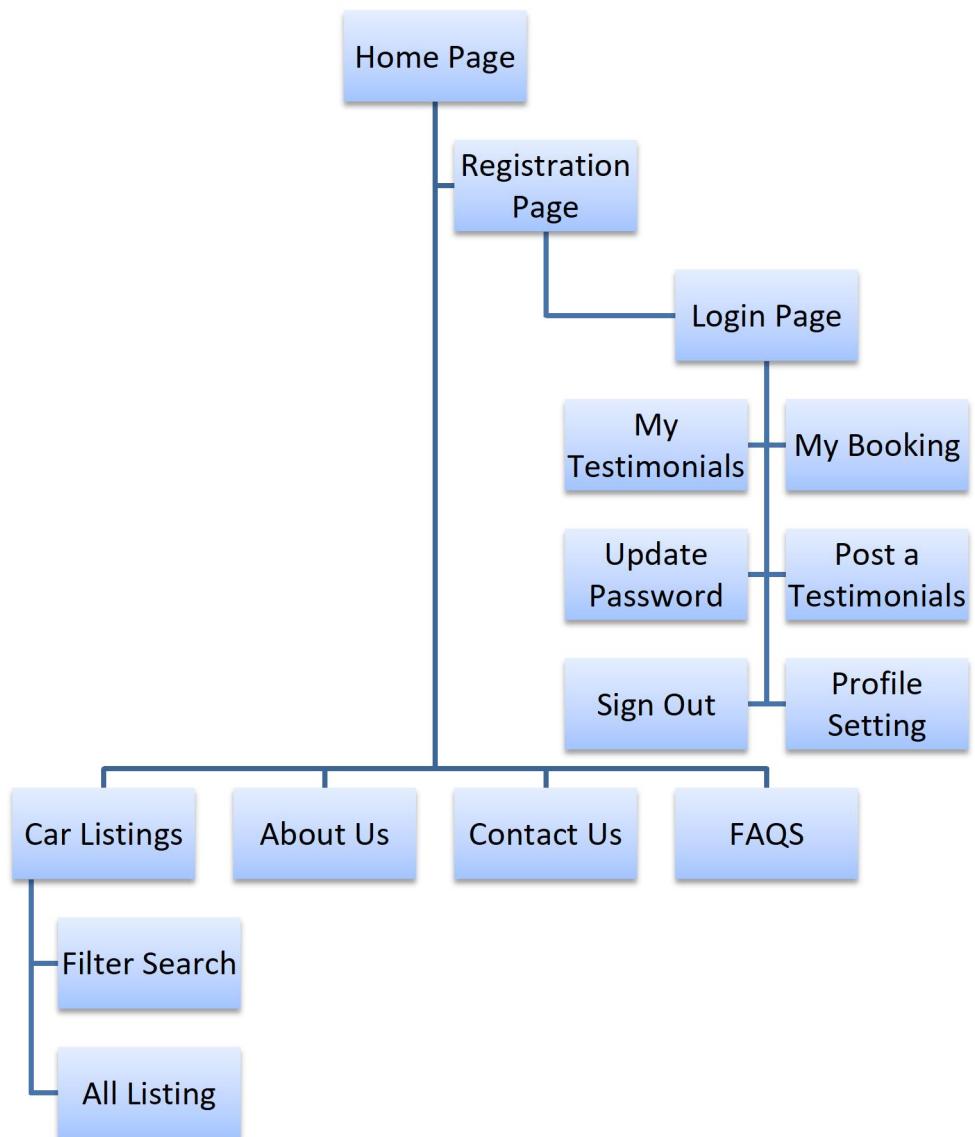
The screenshot shows a web browser window titled "Car Rental Portal | Admin Chang". The left sidebar is labeled "MAIN" and contains the same navigation items as the previous screenshot. The main content area is titled "Change Password" and features a form titled "FORM FIELDS". The form includes fields for "Current Password", "New Password", and "Confirm Password", each with a corresponding input box. At the bottom right of the form is a blue "Save changes" button.

Chapter 5: Methodology

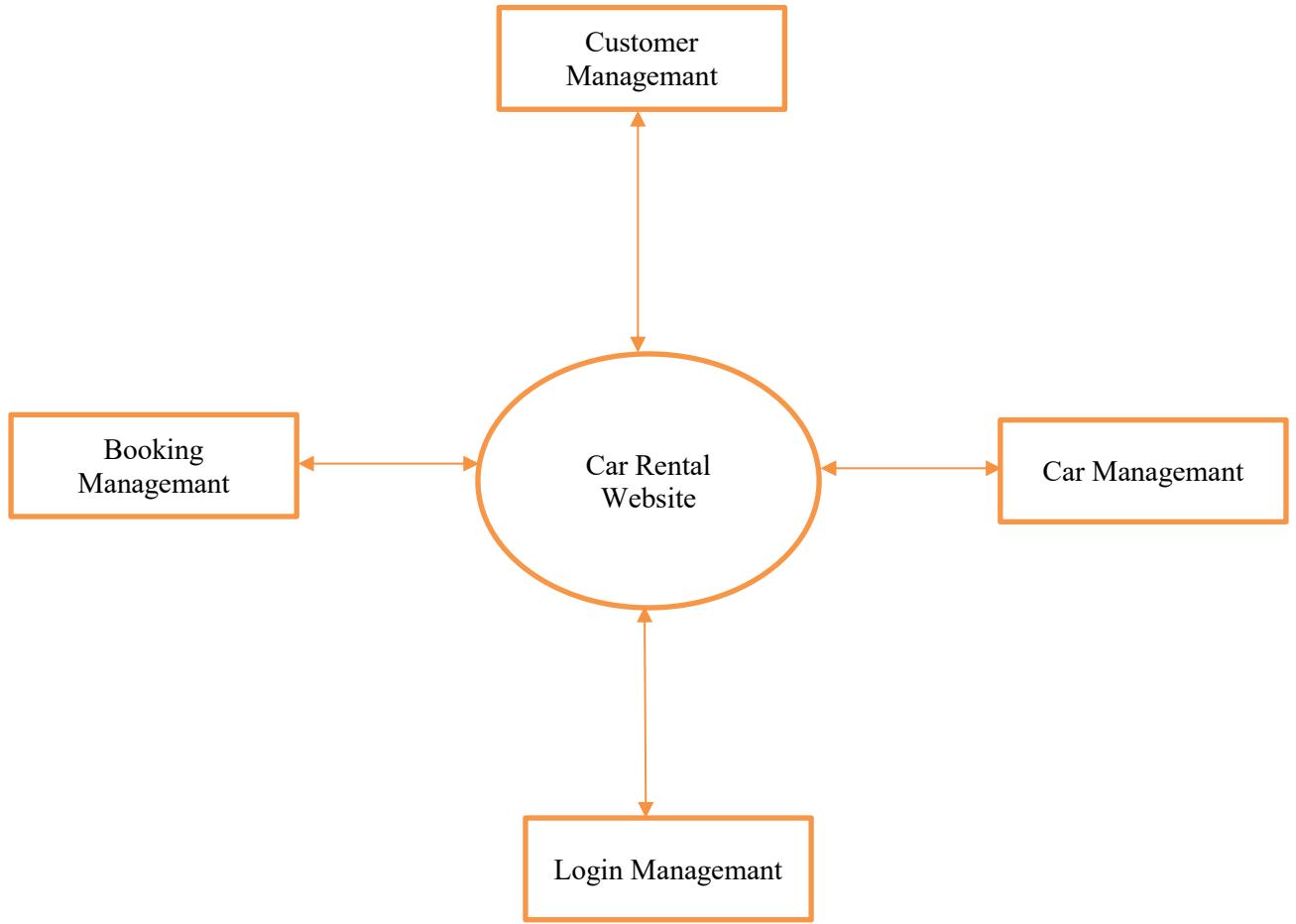
5.1 Architecture Design



5.2 Flow Diagram



5.3 Data Flow Diagram



Chapter 6: Implementation

6.1 PHP



PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side. PHP is well suited for web development. Therefore, it is used to develop web applications (an application that executes on the server and generates the dynamic page.).

PHP script is executed much faster than those scripts which are written in other languages such as JSP and ASP. PHP uses its own memory, so the server workload and loading time is automatically reduced, which results in faster processing speed and better performance

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.

PHP is a MUST for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning PHP:

- PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.
- It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- PHP is forgiving: PHP language tries to be as forgiving as possible.

6.2 HTML



HTML (HyperText Markup Language) is the code that is used to structure a web page and its content. For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

- Create Web site - You can create a website or customize an existing web template if you know HTML well.
- Become a web designer - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
- Understand web - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.
- Learn other languages - Once you understand the basic of HTML then other related technologies like javascript, php, or angular are become easier to understand.

6.3 CSS



Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.

CSS is a MUST for students and working professionals to become a great Software Engineerspecially when they are working in Web Development Domain.

CSS is a MUST for students and working professionals to become a great Software Engineerespecially when they are working in Web Development Domain. I will list down some of the key advantages of learning CSS:

- Create Stunning Web site - CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs,variations in display for different devices and screen sizes aswell as a variety of other effects.
- Become a web designer - If you want to start a carrer as a professional web designer, HTML and CSS designing is a must skill.

6.4 JS



JavaScript, often abbreviated JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. Over 97% of websites use JavaScript on the user side for web page behavior

Javascript is a MUST for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning Javascript:

Javascript is the most popular programming language in the world and that makes it a programmer's great choice. Once you learnt Javascript, it helps you developing great front-end as well as back-end softwares using different Javascript based frameworks like jQuery, Node.JS etc.

Javascript is everywhere, it comes installed on every modern web browser and so to learn Javascript you really do not need any special environment setup. For example Chrome, Mozilla Firefox , Safari and every browser you know as of today, supports Javascript.

Javascript helps you create beautiful and crazy fast websites. You can develop your website with a console like look and feel and give your users the best Graphical User Experience.

JavaScript usage has now extended to mobile app development, desktop app development, and game development. This opens many opportunities for you as Javascript Programmer.

Due to high demand, there is tons of job growth and high pay for those who know JavaScript. You can navigate over to different job sites to see what having JavaScript skills looks like in the job market

6.5 Xamp Server



XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.

XAMPP is one of the widely used cross-platform web servers, which helps developers to create and test their programs on a local webserver. It was developed by the Apache Friends, and its native source code can be revised or modified by the audience. It consists of Apache HTTP Server, MariaDB, and interpreter for the different programming languages like PHP and Perl. It is available in 11 languages and supported by different platforms such as the IA-32 package of Windows & x64 package of macOS and Linux.

As defined earlier, XAMPP is used to symbolize the classification of solutions for different technologies. It provides a base for testing of projects based on different technologies through a personal server. XAMPP is an abbreviated form of each alphabet representing each of its major components. This collection of software contains a web server named Apache, a database management system named MariaDB and scripting programming languages such as PHP and Perl. X denotes Cross-platform, which means that it can work on different platforms such as Windows, Linux, and macOS.

6.6 MySql Database

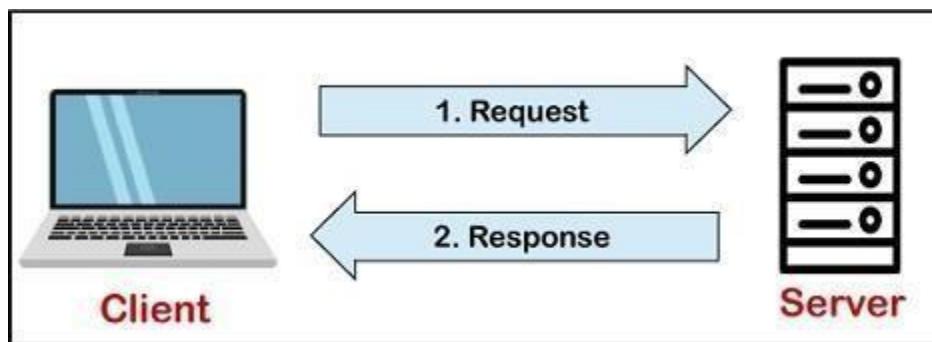


MySQL is an open-source relational database management system. Its name is a combination of “My”, the name of co-founder Michael Widenius’s daughter, and “SQL”, the abbreviation for Structured Query Language

MySQL is a Relational Database Management System (RDBMS) software that provides many things, which are as follows:

- It allows us to implement database operations on tables, rows, columns, and indexes.
- It defines the database relationship in the form of tables (collection of rows and columns), also known as relations.
- It provides the Referential Integrity between rows or columns of various tables.
- It allows us to update the table indexes automatically.
- It uses many SQL queries and combines useful information from multiple tables for the end-users.

MySQL follows the working of user-Server Architecture. This model is designed for the end-users called users to access the resources from a central computer known as a server using network services. Here, the users make requests through a graphical user interface (GUI), and the server will give the desired output as soon as the instructions are matched. The process of MySQL environment is the same as the user-server model.

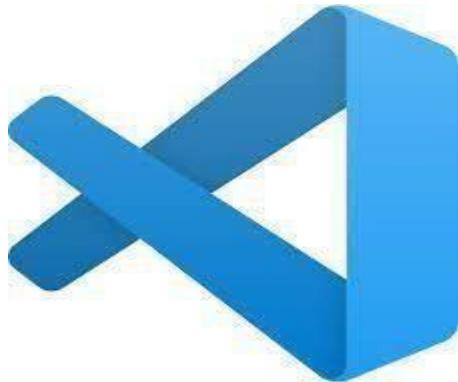


The core of the MySQL database is the MySQL Server. This server is available as a separate program and responsible for handling all the database instructions, statements, or commands. The working of MySQL database with MySQL Server are as follows:

1. MySQL creates a database that allows you to build many tables to store and manipulate data and defining the relationship between each table.
2. users make requests through the GUI screen or command prompt by using specific SQL expressions on MySQL.
3. Finally, the server application will respond with the requested expressions and produce the desired result on the user-side.

A user can use any MySQL GUI. But, it is making sure that your GUI should be lighter and user-friendly to make your data management activities faster and easier. Some of the most widely used MySQL GUIs are MySQL Workbench, SequelPro, DBVisualizer, and the Navicat DB Admin Tool. Some GUIs are commercial, while some are free with limited functionality, and some are only compatible with Mac OS. Thus, you can choose the GUI according to your needs.

6.7 Visual Studio code



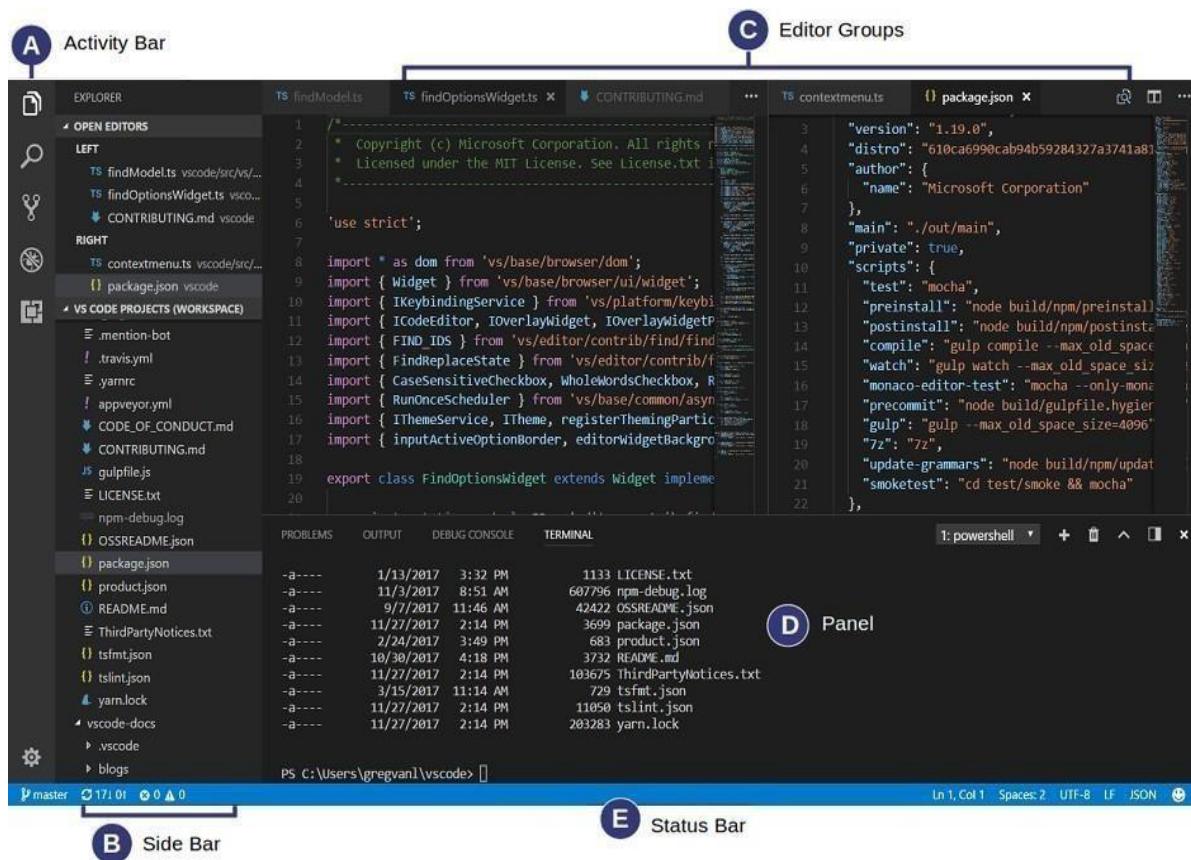
Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git

VS Code supports a wide array of programming languages from Java, C++, and Python to CSS, Go, and Dockerfile. Moreover, VS Code allows you to add on and even creating new extensions including code linters, debuggers, and cloud and web development support.

The VS Code user interface allows for a lot of interaction compared to other text editors.

To simplify user experience, VS Code is divided into five main regions:

- The activity bar
- The side bar
- Editor groups
- The panel
- The status bar



Chapter 7: Source Code

7.1 Source code

- login.php

The screenshot shows the Visual Studio Code interface with the 'login.php' file open. The file contains PHP code for handling user login. It includes a database query to check if the provided email and password match a user in the 'tblusers' table. If successful, it sets session variables for the user's name and ID, and then redirects them to the homepage. If unsuccessful, it displays an error message. The code uses PDO for database interaction and includes a modal form for the login process.

```
<?php
if(isset($_POST['login'])) {
    $email=$_POST['email'];
    $password=md5($_POST['password']);
    $sql = "SELECT EmailId,Password,FullName FROM tblusers WHERE EmailId=:email and Password=:password";
    $query= $db-> prepare($sql);
    $query-> bindParam(':email', $email, PDO::PARAM_STR);
    $query-> bindParam(':password', $password, PDO::PARAM_STR);
    $query-> execute();
    $results=$query->fetchAll(PDO::FETCH_OBJ);
    if($query->rowCount() > 0) {
        $_SESSION['login']= $_POST['email'];
        $_SESSION['fname']=$results->FullName;
        $currentpage=$_SERVER['REQUEST_URI'];
        echo "<script type='text/javascript'> document.location = '$currentpage'; </script>";
    } else{
        echo "<script>alert('Invalid Details');</script>";
    }
}
<div class="modal fade" id="loginform">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<button type="button" class="close" data-dismiss="modal" aria-label="Close"><span aria-hidden="true">&times;</span></button>
<h3 class="modal-title">Login</h3>
</div>
<div class="modal-body">
<div class="row">
<div class="login_wrap">
```

- registration.php

The screenshot shows the Visual Studio Code interface with the 'registration.php' file open. The file contains PHP code for user registration. It inserts new user data into the 'tblusers' table. After insertion, it checks if the operation was successful and displays a success message or an error message if something went wrong. The code also includes a JavaScript function for checking email availability via an AJAX call.

```
<?php
//error_reporting(0);
if(isset($_POST['signup'])) {
    $fname=$_POST['fullname'];
    $email=$_POST['emailid'];
    $mobile=$_POST['mobileno'];
    $password=md5($_POST['password']);
    $sql="INSERT INTO tblusers(fullName,EmailId,ContactNo,Password) VALUES(:fname,:email,:mobile,:password)";
    $query = $db->prepare($sql);
    $query->bindParam(':fname',$fname,PDO::PARAM_STR);
    $query->bindParam(':email',$email,PDO::PARAM_STR);
    $query->bindParam(':mobile',$mobile,PDO::PARAM_STR);
    $query->bindParam(':password',$password,PDO::PARAM_STR);
    $query->execute();
    $lastInsertId = $db->lastInsertId();
    if($lastInsertId)
    {
        echo "<script>alert('Registration successful. Now you can login');</script>";
    }
    else
    {
        echo "<script>alert('Something went wrong. Please try again');</script>";
    }
}
<
<script>
function checkAvailability() {
    $('#loaderIcon').show();
    jQuery.ajax({
        url: "check_availability.php",
        data: 'emailid='+$("#emailid").val(),
        type: "POST",
        success:function(data){
```

Database

- Car Rental DB:

The screenshot shows the phpMyAdmin interface for the 'currental' database. The left sidebar lists tables: admin, tblbooking, tblbrands, tblcontactusinfo, tblcontactusquery, tblpages, tblsubscribers, tbldtestimonial, tblusers, and tblicheicles. The main area displays a table of 10 tables with columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The tables listed are admin, tblbooking, tblbrands, tblcontactusinfo, tblcontactusquery, tblpages, tblsubscribers, tbldtestimonial, and tblusers, all of which are empty (0 rows). The total size is 191.1 KiB.

- Users Details:

The screenshot shows the phpMyAdmin interface for the 'tblusers' table within the 'currental' database. The table has 5 rows. The columns are: id, FullName, EmailId, Password, ContactNo, dob, Address, City, Country, RegDate, and UpdationDate. The data is as follows:

	id	FullName	EmailId	Password	ContactNo	dob	Address	City	Country	RegDate	UpdationDate
<input type="checkbox"/>	2	girish gurav	gg@gmail.com	202cb962ac59075b964b07152d234b70	1234567890	NULL	NULL	NULL	NULL	2023-06-01	19:31:08
<input type="checkbox"/>	3	sonal	sonal@gmail.com	202cb962ac59075b964b07152d234b70	9404479418	NULL	NULL	NULL	NULL	2023-06-02	11:47:13
<input type="checkbox"/>	4	swapnil dahade	swap@gmail.com	202cb962ac59075b964b07152d234b70	2123456789	NULL	NULL	NULL	NULL	2023-06-05	11:31:19
<input type="checkbox"/>	5	vijay	vijay@gmail.com	202cb962ac59075b964b07152d234b70	1234567890	NULL	NULL	NULL	NULL	2023-06-07	2023-06-07 11:18:02

Chapter 8: Testing

8.1 Testing

Software testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance.

Software testing follows a common process. Tasks or steps include defining the test environment, developing test cases, writing scripts, analyzing test results and submitting defect reports.

Testing can be time-consuming. Manual testing or ad-hoc testing may be enough for small builds. However, for larger systems, tools are frequently used to automate tasks. Automated testing helps teams implement different scenarios, test differentiators (such as moving components into a cloud environment), and quickly get feedback on what works and what doesn't.

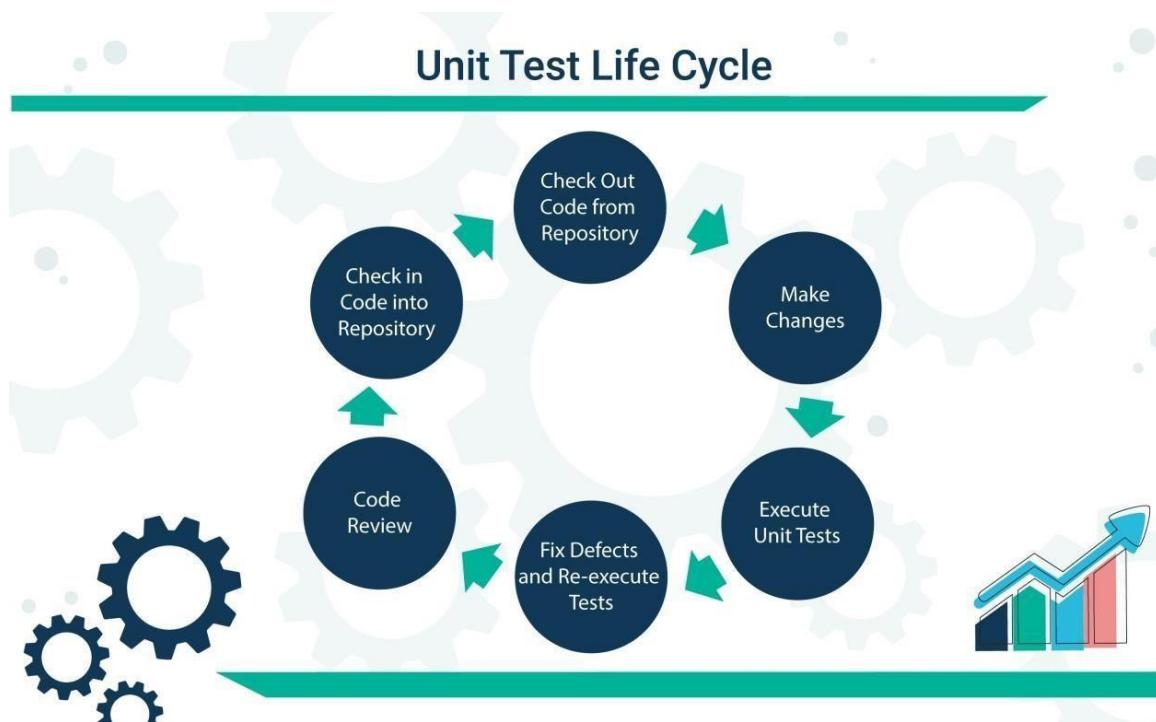
A good testing approach encompasses the application programming interface (API), user interface and system levels. As well, the more tests that are automated, and run early, the better. Some teams build in-house test automation tools. However, vendor solutions offer features that can streamline key test management tasks such as

- **Continuous testing:** Project teams test each build as it becomes available. This type of software testing relies on test automation that is integrated with the deployment process. It enables software to be validated in realistic test environments earlier in the process –improving design and reducing risks.
- **Configuration management:** Organizations centrally maintain test assets and track what software builds to test. Teams gain access to assets such as code, requirements, design documents, models, test scripts and test results. Good systems include user authentication and audit trails to help teams meet compliance requirements with minimal administrative effort.
- **Service virtualization:** Testing environments may not be available, especially early in code development. Service virtualization simulates the services and systems that

are missing or not yet completed, enabling teams to reduce dependencies and test sooner. They can reuse, deploy and change a configuration to test different scenarios without having to modify the original environment.

8.2 Unit Testing

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation.



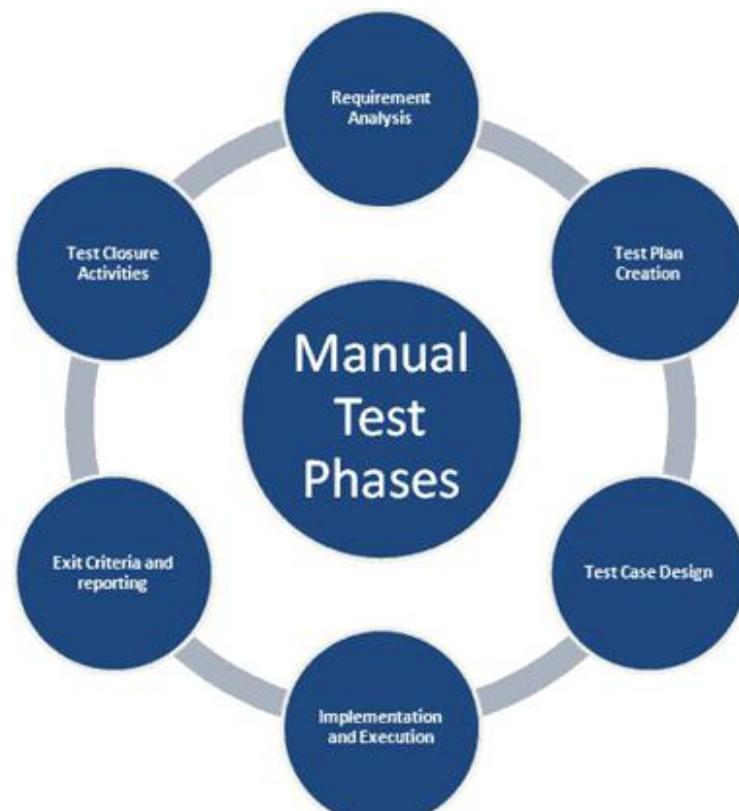
8.3 Integration Testing

Integration testing involves integrating the various modules of an application and then testing their behaviour as a combined, or integrated, unit. Verifying if the individual units are communicating with each other properly and working as intended post-integration is essential.



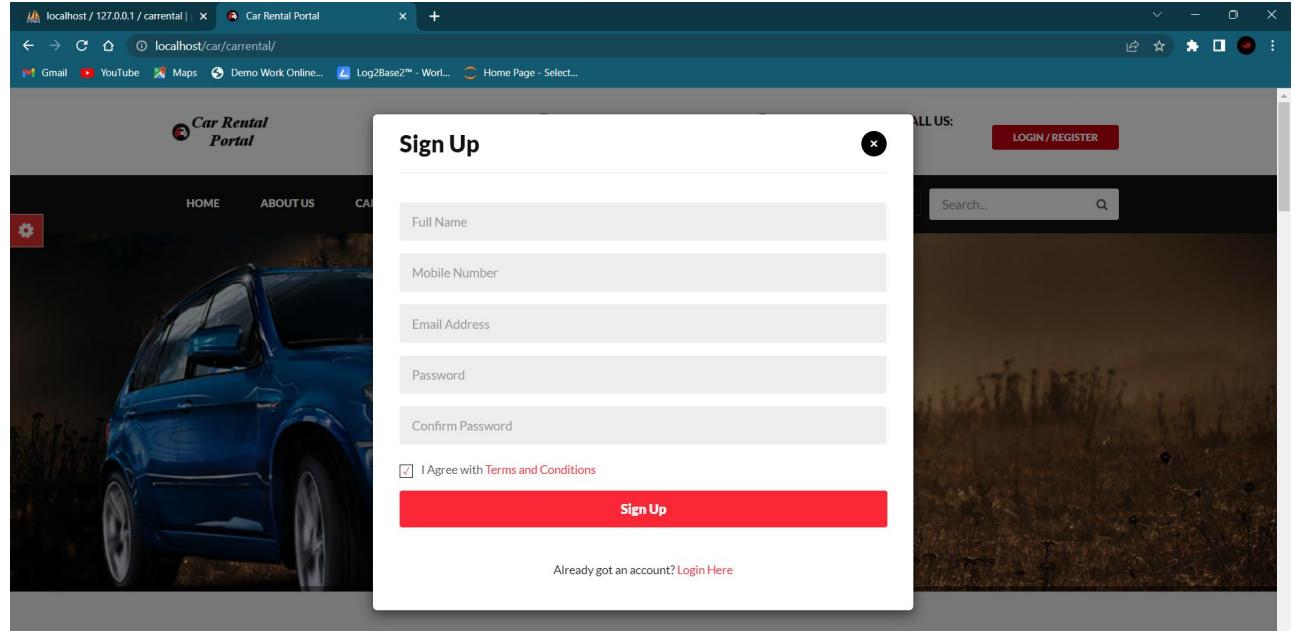
8.4 Manual Testing

Manual testing is a software testing process in which test cases are executed manually without using any automated tool. All test cases executed by the tester manually according to the end user's perspective. It ensures whether the application is working, as mentioned in the requirement document or not.

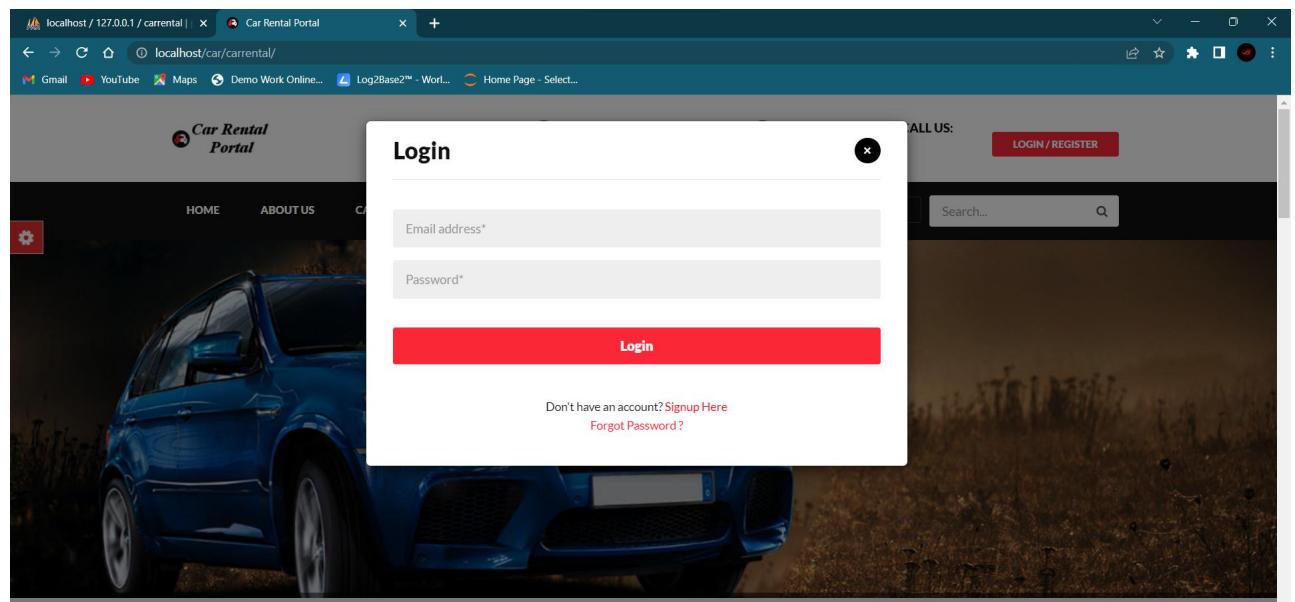


Chapter 9: Results

User Registration



User Login:



Car Listing:

The screenshot shows the 'Car Listing' section of a car rental portal. At the top, there's a navigation bar with links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. A search bar is also present. The main content area features a banner with three cars (Mercedes-Benz S-Class, Maruti Suzuki Wagon R, and Range Rover) and the text 'Car Listing'. Below the banner, there's a 'Find Your Car' section with dropdown menus for Select Brand and Select Fuel Type, and a 'Search Car' button. To the right, there are two car listings: 'Maruti , Maruti Suzuki Wagon R' (Rs 500 Per Day) and 'BMW , BMW 5 Series' (Rs 1000 Per Day). Each listing includes a thumbnail image, the car model, price, seating capacity (5 seats), model year (2019/2018), fuel type (Petrol), and a 'View Details' button. On the left, there's a 'Recently Listed Cars' section showing thumbnails for 'Maruti Suzuki Vitara Brezza' (Rs 600 Per Day) and 'Toyota Fortuner' (Rs 3000 Per Day).

Update Password

The screenshot shows the 'Update Password' page. At the top, there's a user profile section with a placeholder image, the name 'swapnil dabhadhe', and a 'Autospot' button. On the left, a sidebar menu lists Profile Settings, Update Password (which is highlighted in bold), My Booking, Post a Testimonial, My Testimonials, and Sign Out. The main content area has a heading 'Update password' and fields for Current Password, Password, and Confirm Password. A red 'Update' button is at the bottom.

My_Booking

The screenshot shows the 'My Booking' section of the Car Rental Portal. At the top, there's a navigation bar with links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. On the right, there are support details (FOR SUPPORT MAIL US: vivek@gmail.com) and a service helpline (SERVICE HELPLINE CALL US: 9613961001). A search bar and a user profile dropdown for SWAPNIL DABHADHE are also present.

The main content area features a banner with a car silhouette and the text 'My Booking'. Below it, a breadcrumb navigation shows 'Home > My Booking'. The user profile 'swapnil dabhadhe' is displayed with an 'Autospot' badge.

The 'MY BOOKINGS' section lists a booking for 'Booking No #240941659' of a 'BMW , BMW 5 Series'. The booking details show it's from 2023-06-06 to 2023-06-09, with a message indicating 'urgent REQUIREMENT'. A green 'Confirmed' button is visible next to the booking.

The 'Invoice' section displays a table with the following data:

Car Name	From Date	To Date	Total Days	Rent / Day
BMW 5 Series, BMW	2023-06-06	2023-06-09	3	1000
Grand Total				3000

A sidebar on the left contains links for Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out.

Post_Testimonial:

The screenshot shows the 'Post Testimonial' section of the Car Rental Portal. The top navigation and user profile are identical to the previous screenshot.

The main content area features a banner with a car silhouette and the text 'Post Testimonial'. Below it, a breadcrumb navigation shows 'Home > Post Testimonial'. The user profile 'swapnil dabhadhe' is displayed with an 'Autospot' badge.

The 'POST A TESTIMONIAL' section includes a 'Testimoniail' text input field and a red 'Save >' button.

The sidebar on the left contains links for Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out.

My_Testimonial

The screenshot shows a web page titled "My Testimonials". At the top, there is a navigation bar with links for HOME, ABOUT US, CAR LISTING, FAQS, and CONTACT US. A user profile dropdown for "SWAPNIL DABHADE" is visible, along with a search bar. The main content area features a banner with a car silhouette and the title "My Testimonials". Below the banner, the testimonial details are displayed:

swapnil dabhade
Autospot

MY TESTIMONIALS

Good Conditions of car
Posting Date: 2023-06-05 11:41:21

A sidebar on the left contains links: Profile Settings, Update Password, My Booking, Post a Testimonial, My Testimonials, and Sign Out. A green "Active" button is located near the testimonial details.

9.14 Admin Login:

The screenshot shows a browser window with the URL "localhost / 127.0.0.1 / currental | Car Rental Portal | Admin Login". The main content is a login form titled "Admin | Sign in". The form fields are:

YOUR USERNAME: admin

PASSWORD: [redacted]

A blue "LOGIN" button is at the bottom of the form. Below the form, there is a link "Back to Home".

Brands-

•Create_Brand:

Create Brand

CREATE BRAND

Brand Name

Submit

MAIN

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

•Manage_Brands:

Manage Brands

LISTED BRANDS

Show	10	entries	Search:	
#	Brand Name	Creation Date	Updation date	Action
1	Maruti	2023-06-13 21:54:34	2023-06-29 20:18:10	
2	BMW	2023-05-17 21:54:50	2023-05-24 20:18:48	
3	Audi	2023-05-10 21:55:03	2023-05-24 20:19:39	
4	Nissan	2017-06-18 21:55:13		
5	Toyota	2017-06-18 21:55:24		
6	Volkswagen	2023-05-18 11:52:13	2023-06-29 20:20:10	

Showing 1 to 6 of 6 entries

PREVIOUS 1 NEXT

MAIN

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

9.16 Vehicles –

• Post Vehicles :

The screenshot shows the 'Post A Vehicle' form in the Admin Panel. The left sidebar has a 'Vehicles' section selected. The main form area has a 'BASIC INFO' tab. It includes fields for 'Vehicle Title*', 'Select Brand*', 'Vehical Overview*', 'Price Per Day(in USD)*', 'Select Fuel Type*', 'Model Year*', and 'Seating Capacity*'. Below this is an 'Upload Images' section with five input fields labeled 'Image 1', 'Image 2', 'Image 3', 'Image 4', and 'Image 5', each with a 'Choose File' button. To the right of these are checkboxes for vehicle features like 'Air Conditioner', 'Power Steering', 'CD Player', 'Power Door Locks', 'Driver Airbag', 'Central Locking', 'AntiLock Braking System', 'Passenger Airbag', 'Crash Sensor', 'Brake Assist', 'Power Windows', and 'Leather Seats'. At the bottom are 'Cancel' and 'Save changes' buttons.

• Manage Vehicles :

The screenshot shows the 'Manage Vehicles' page in the Admin Panel. The left sidebar has a 'Vehicles' section selected. The main area displays a table of vehicle details. The columns are: #, Vehicle Title, Brand, Price Per day, Fuel Type, Model Year, and Action. The table contains 8 entries. At the bottom, there is a search bar, a pagination area showing 'Showing 1 to 8 of 8 entries', and buttons for 'PREVIOUS' and 'NEXT'.

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

9.17 Bookings

• New Booking :

The screenshot shows the 'Car Rental Portal | Admin Panel' interface. On the left, a dark sidebar menu lists various administrative functions under 'MAIN' and 'New', 'Confirmed', and 'Canceled' sections. Under 'Bookings', there are links for 'Manage Testimonials', 'Manage Contactus Query', 'Reg Users', 'Manage Pages', 'Update Contact Info', and 'Manage Subscribers'. The main content area is titled 'Canceled Bookings' and contains a table header for 'BOOKINGS INFO' with columns: #, Name, Booking No., Vehicle, From Date, To Date, Status, Posting date, and Action. Below the header, a message says 'No data available in table'. At the bottom of the table area, it says 'Showing 0 to 0 of 0 entries' and has 'PREVIOUS' and 'NEXT' buttons.

• Confirmed Booking :

The screenshot shows the 'Car Rental Portal | Admin Panel' interface. The sidebar menu is identical to the previous screenshot. The main content area is titled 'Confirmed Bookings' and displays a table of booking records. The table has columns: #, Name, Booking No., Vehicle, From Date, To Date, Status, Posting date, and Action. The data in the table is as follows:

#	Name	Booking No.	Vehicle	From Date	To Date	Status	Posting date	Action
1	girish gurav	467718855	Maruti , Maruti Suzuki Vitara Brezza	2023-06-07	2023-06-09	Confirmed	2023-06-01 19:34:32	View
2	sonal	936219234	Maruti , Maruti Suzuki Wagon R	2023-06-02	2023-06-30	Confirmed	2023-06-02 11:53:20	View
3	swapnil dabhadhe	240941659	BMW , BMW 5 Series	2023-06-06	2023-06-09	Confirmed	2023-06-05 11:38:32	View

At the bottom of the table area, it says 'Showing 1 to 3 of 3 entries' and has 'PREVIOUS' and 'NEXT' buttons.

Chapter 10: Advantages

10.1 Advantages

1. Convenience: Car rental websites provide a convenient platform for customers to search, compare, and book rental cars online from the comfort of their own homes or any location with internet access. This eliminates the need to visit multiple physical rental agencies or make phone calls to inquire about availability.
2. Wide Selection of Vehicles: Car rental websites typically have a large inventory of vehicles available for rent, ranging from economy cars to luxury vehicles, SUVs, vans, and more. Customers can browse through various options and choose the vehicle that best suits their needs and preferences.
3. Competitive Pricing: Online car rental platforms promote price transparency and enable customers to compare rates from different rental companies. This competition often leads to competitive pricing, allowing customers to find the best deals and potentially save money on their rentals.
4. Flexible Booking Options: Car rental websites offer flexible booking options, including selecting pick-up and drop-off locations, choosing rental durations, and specifying desired features such as GPS navigation systems or child safety seats. Customers can customize their bookings based on their specific requirements.
5. User Reviews and Ratings: Most car rental websites feature customer reviews and ratings for rental agencies and individual vehicles. These reviews provide valuable insights into the quality of service, vehicle condition, and overall customer satisfaction, helping users make informed decisions.
6. Time-Saving: Using a car rental website can save time compared to traditional methods. Customers can quickly search for available cars, compare prices, and complete the booking process within minutes, rather than spending time physically visiting multiple rental agencies.
7. Accessibility: Car rental websites are accessible 24/7, allowing customers to make reservations at any time that is convenient for them. This flexibility is particularly beneficial for those who have busy schedules or need to make last-minute arrangements.
8. Pre-booking Assurance: By booking in advance through a car rental website, customers can have peace of mind knowing that a vehicle will be available for them on their desired dates. This is especially important during peak travel seasons or in locations with high demand for rental cars.
9. Wide Selection of Vehicles: Car rental websites typically have a large inventory of vehicles available for rent, ranging from economy cars to luxury vehicles, SUVs, vans, and more. Customers can browse through various options and choose the vehicle that best suits their needs and preferences.

Chapter 11: Conclusion & Future Work

11.1 Future Scope

1. Expansion of Electric and Autonomous Vehicles: As electric vehicles (EVs) and autonomous vehicles (AVs) gain popularity and become more widely available, car rental websites can incorporate these options into their fleets. Offering EVs and AVs for rent would cater to the growing demand for sustainable and technologically advanced transportation options.
2. Integration with Mobility as a Service (MaaS): Car rental websites can integrate with MaaS platforms, which combine various transportation modes such as public transit, ride-hailing services, and car rentals into a single platform. This integration would allow customers to seamlessly plan and book their entire travel journey, including car rentals, through a unified interface.
3. Enhanced User Experience through Artificial Intelligence (AI): AI can play a significant role in improving the user experience on car rental websites. Intelligent chatbots can provide instant assistance and answer customer queries, while machine learning algorithms can personalize recommendations based on user preferences and previous booking history.
4. Peer-to-Peer Car Rental: Peer-to-peer car rental models, where individuals can rent out their own vehicles, have gained popularity in recent years. Car rental websites can expand their offerings to include peer-to-peer rentals, enabling individuals to list their cars for rent and facilitating transactions between car owners and renters.
5. Integration with Car-Sharing Services: Car rental websites can collaborate with car-sharing platforms to provide customers with a wider range of transportation options. Integration with car-sharing services would allow customers to choose between traditional car rentals and short-term car sharing, depending on their specific needs and preferences.
6. Augmented Reality (AR) and Virtual Reality (VR) Experiences: Car rental websites can leverage AR and VR technologies to enhance the customer experience. Users could virtually explore and inspect rental vehicles, experience interactive tutorials on car features and controls, and even take virtual test drives before making a booking decision.
7. Blockchain for Security and Transparency: Blockchain technology can be utilized to enhance security and transparency in car rental transactions. Smart contracts powered by blockchain can automate rental agreements, handle payments securely, and maintain an immutable record of rental histories and vehicle conditions, thereby building trust and reducing fraud.

8. Integration with Travel Experience Platforms: Car rental websites can collaborate with other travel experience platforms, such as travel planning apps, hotel booking platforms, and activity reservation services. Integration with these platforms would enable customers to seamlessly coordinate their car rentals with other travel arrangements, creating a more cohesive and convenient travel experience.
9. Focus on Sustainability: Car rental websites can emphasize sustainability by offering more fuel-efficient vehicles, promoting carbon offset programs, and partnering with renewable energy providers. They can also integrate electric vehicle charging station information into their platforms to support EV adoption and facilitate eco-friendly travel options.
10. Data Analytics for Demand Forecasting: By leveraging data analytics and machine learning, car rental websites can analyze customer behavior, booking patterns, and market trends to optimize fleet management and pricing strategies. This data-driven approach can help anticipate demand fluctuations, optimize vehicle utilization, and enhance overall operational efficiency.

11.2 Conclusion

Car rental websites have transformed the way people search for, compare, and book rental cars. They offer numerous advantages, including convenience, a wide selection of vehicles, competitive pricing, flexible booking options, user reviews and ratings, additional services, time-saving benefits, accessibility, and pre-booking assurance.

Looking ahead, the future scope for car rental websites is promising. It involves incorporating electric and autonomous vehicles, integrating with Mobility as a Service (MaaS) platforms, enhancing the user experience through artificial intelligence (AI), expanding into peer-to-peer car rentals, integrating with car-sharing services, utilizing augmented reality (AR) and virtual reality (VR) experiences, leveraging blockchain for security and transparency, collaborating with travel experience platforms, focusing on sustainability, and utilizing data analytics for demand forecasting. By embracing these opportunities, car rental websites can continue to evolve, innovate, and provide customers with seamless, personalized, and sustainable transportation solutions for their travel needs.

Chapter 12: References

Websites:

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