VIDYABHARTI TRUST COLLEGE OF BUSINESS, COMPUTER SCIENCE RESEARCH. UMRAKH

MINOR-PROJECT REPORT

BACHELOR OF COMPUTER APPLICATION
(B.C.A)

SEM: 5th YEAR: 2024

"CAR DEALERS "

SUBMITTED BY:

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CERTIFICATE

This is to certify that **Mr. Bhupen Chauhan** *Exam Seat Number: 7352* ,

Miss. Nidhi Chauhan *Exam Seat Number: 7354 has satisfactorily completed his*

mini-project work entitled **Car Dealers** *as a partial fulfillment of the*

requirements for **5thSemester – B.C.A. (Bachelor of Computer Application),**

during the academic Year 2024.

Date: *19/10/2024*

PRINCIPAL
Vidyabharti Trust College of Business.
Computer - Science and Research

Principal

Dr. Snehal H. Mistry

HOD

Mr. Amit R. Patel

ACKNOWLEDGEMENT

It gives us great pleasure in presenting this project report titled **"Car Dealer "** and we wish to express our immense gratitude to the people who provided invaluable knowledge and support in the completion of this project.

Their guidance and motivation has helped in making this project a great success.

We are eager and glad to express our gratitude to the Head of the BCA Dept. **Prof. Amit Patel** for his approval of this project. We are also thankful to him for providing us the needed assistance, detailed suggestions and also encouragement to do the project.

We would like to express our sincere gratitude to our respected principal **Dr. Snehal Mistry,** vice principal **Dr. Payal Mahida** and the management of our College for providing such an ideal atmosphere to build up this project with wellequipped library with all the most necessary reference materials and up to date IT Laboratories. We are extremely thankful to all staff and the management of the college for providing us all the facilities and resources required.

Thanking All,

Chauhan Bhupen D.

Chauhan Nidhi A.

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Introduction

Purpose of the System:

The system aims to streamline and automate car dealership and parts supplier operations, addressing inefficiencies in traditional processes. Key objectives include:

1. **Automating Manual Tasks**: Reduces errors and speeds up processes like inventory management, order processing, and reporting.

2. **Efficient Inventory Management**: Real-time stock updates ensure better forecasting and availability.

3. **Enhancing Customer Experience**: Personalized service and automated CRM improve customer satisfaction.

4. **Reducing Errors**: Automation ensures accurate data entry, minimizing human mistakes.

5. **Simplifying Financing**: EMI calculators help customers explore financing options easily.

6. **Data-Driven Decision Making**: Real-time reports improve business insights and decisions.

7. **Creating a Digital Marketplace**: Expands reach by allowing customers to browse cars and parts online, enhancing sales.

Significance:

Improves customer experience, reduces manual errors, and enhances inventory management.

Key Features:

1. Streamlined inventory management.
2. Customer relationship management (CRM).
3. EMI calculators for financing options.

Scope:

Intended for car dealerships, parts suppliers, and end customers, creating a digital marketplace.

Project Description

Objective:

To provide a digital platform that connects car dealers and parts suppliers with customers.

Functionality:

Simplified transactions for purchasing cars and parts.

Enhanced inventory management for dealers.

Target Users:

Car dealers looking to manage their inventory and sales.

Parts suppliers wanting to track their products.

End customers seeking a user-friendly platform to purchase vehicles and parts.

Project Profile

Project Title:	Car Dealers
Frontend:	HTML, CSS, JavaScript, React.js.
Backend:	MongoDB.
Browser:	Google Chrome
Platform:	VS Code
Documentation Tool:	Microsoft word 2022
Internal Guide:	Mr Parmar Yuvrajsinh.
Submitted To:	Mr Parmar Yuvrajsinh.

Objectives

Comprehensive Solution:

Aims to manage vehicle and parts sales efficiently.

Enhanced Customer Satisfaction:

Streamlines service delivery, reducing wait times.

Real-time Updates:

Ensures dealers can manage inventory effectively.

Reduced Manual Tasks:

 Automates data entry and record keeping.

Data Analytics:

Improves decision-making through real-time insights into sales and inventory.

System Design

Architecture:

Describes the overall system architecture, including clientserver interactions.

Components:

Outlines major components such as frontend UI, backend APIs, and database.

User Interface Design Principles:

Focuses on usability and accessibility.

Functional Requirements:

Lists the specific features the system must support, such as user registration, vehicle management, and sales processing.

Non-functional Requirements:

Addresses performance metrics like load time, scalability, and security.

Activity Diagram

Workflow Visualization:

Displays the sequence of operations within the system.

Key Activities:

1. User registration and login.
2. Browsing and searching for vehicles.
3. Processing sales transactions.
4. Managing customer profiles.

User Interactions:

Shows how users will interact with various system components.

User:
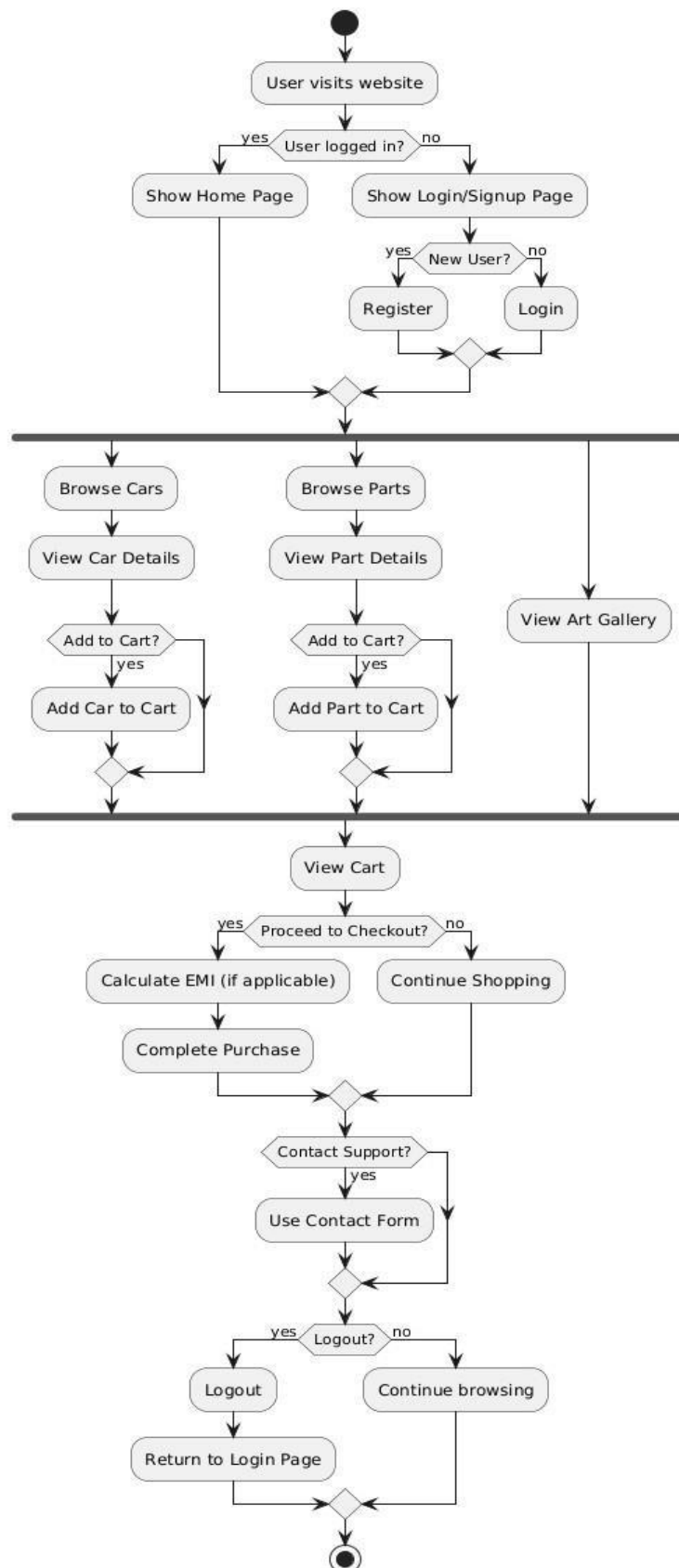
Admin:
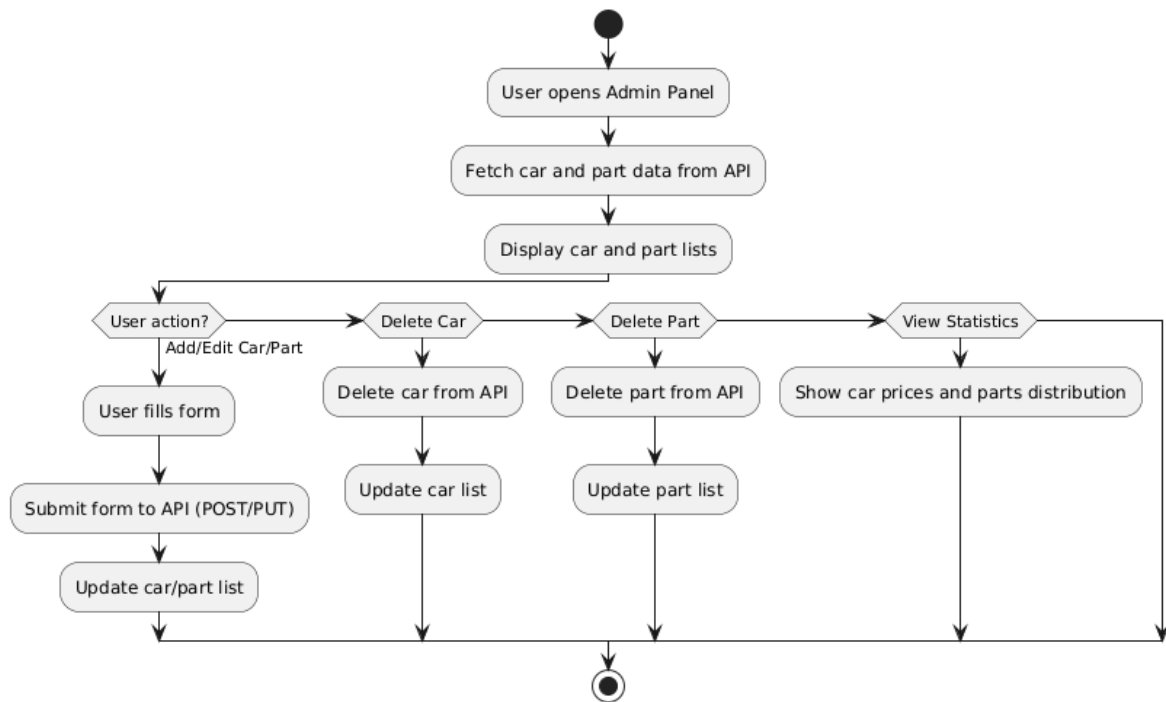
ER Diagram

Entities Represented:

Users (customers and dealers).

Vehicles (cars and parts).

Transactions (sales records).

Relationships:

Users can buy multiple vehicles.

Vehicles can belong to multiple transactions.

Attributes:

Includes detailed attributes for each entity, such as user ID, vehicle make, and transaction date.
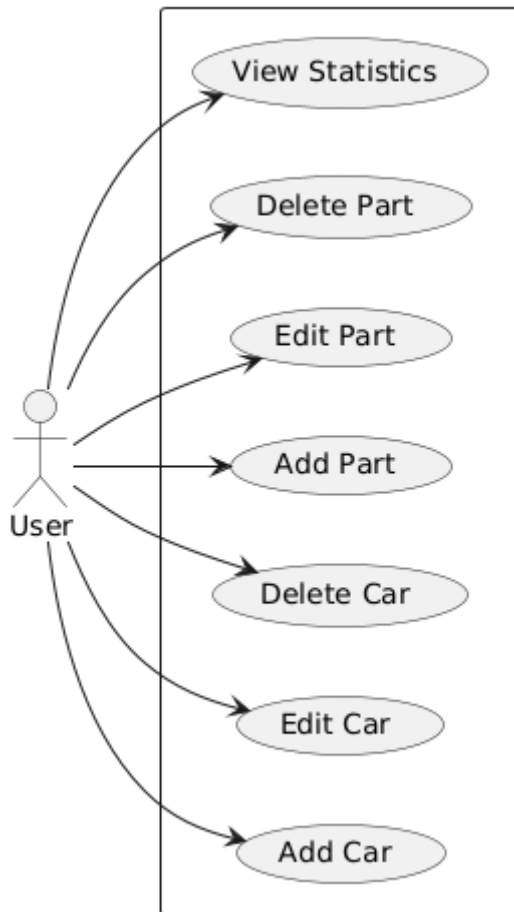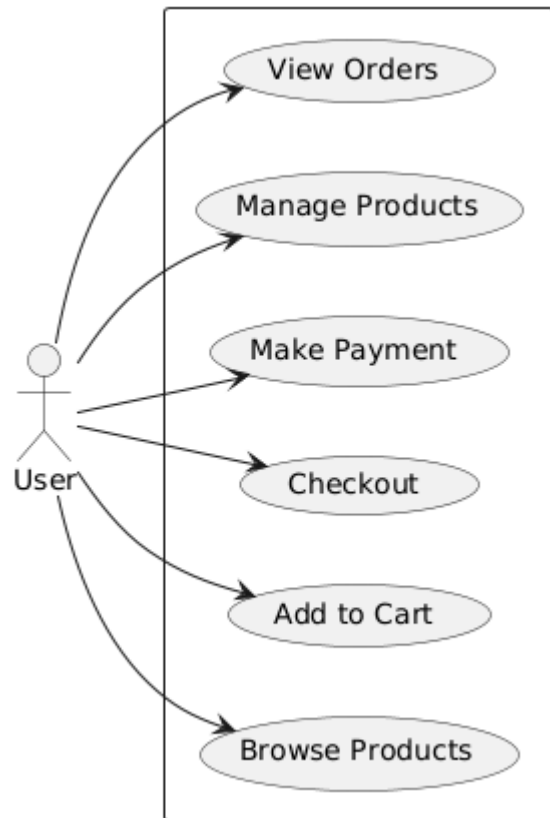
ER Diagram :

User:

Admin:

Car (E)
- o _id: ObjectId
- model: String
- image: String
- price: Float
- company: String
- features: Text
- moreDetails: Text
- category: String

Part (E)
- o _id: ObjectId
- partNumber: String
- image: String
- details: Text
- category: String

Category (E)
- categoryName: String
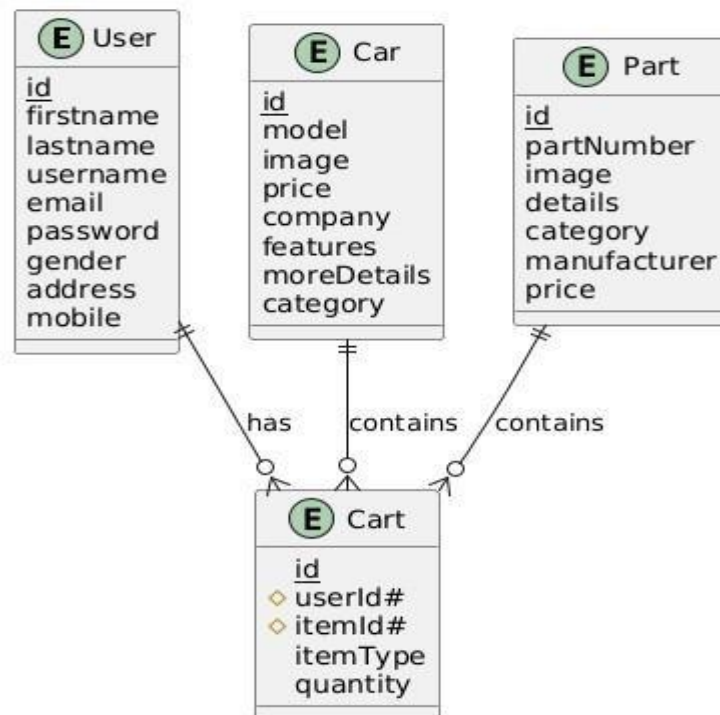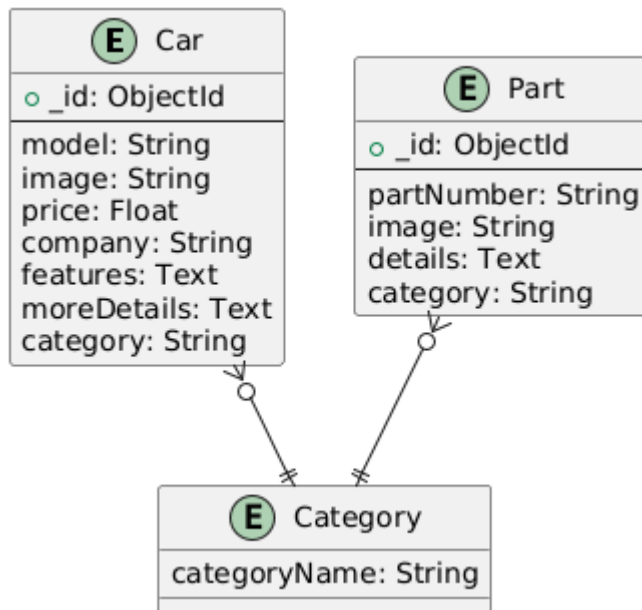
8. Use Case Diagram

Admin: **User:**

Actors Identified:

Admins.

Dealers.

Customers.

Use Cases:

User registration and login.

Vehicle search and filter.

Adding and managing inventory.

Processing sales and generating reports.

High-Level Overview:

Provides clarity on user interactions with the system.

Database Design

Schema Structure:

Defines how data will be organized within the database.

Key Tables:

Admin:

ID (Primary Key)	Int(11)
User Name	String
Email	String
Password	String

Vehicle Inventory:

ID (Primary Key)	Int(11)
Make	String
Model	String
Year	Int(4)
Price	Double

Customer:

ID (Primary Key):	Int(11)
First Name	String
Last Name	String
Email	String
Contact No	String

Relationships: Ensures proper connections between tables for data integrity.

Parts Management

Inventory Tracking:

Details how parts will be tracked in real-time.

Categorization:

Organizes parts based on vehicle compatibility.

Pricing and Discounts:

Features for setting prices and applying promotions.

Supplier Management:
Tools to maintain relationships with parts suppliers, ensuring a reliable supply chain.

Interface Design

Mockups and Layouts:

Visual representations of the user interface.

Navigation Flows:

Outlines how users will move through the system.

Responsive Design:
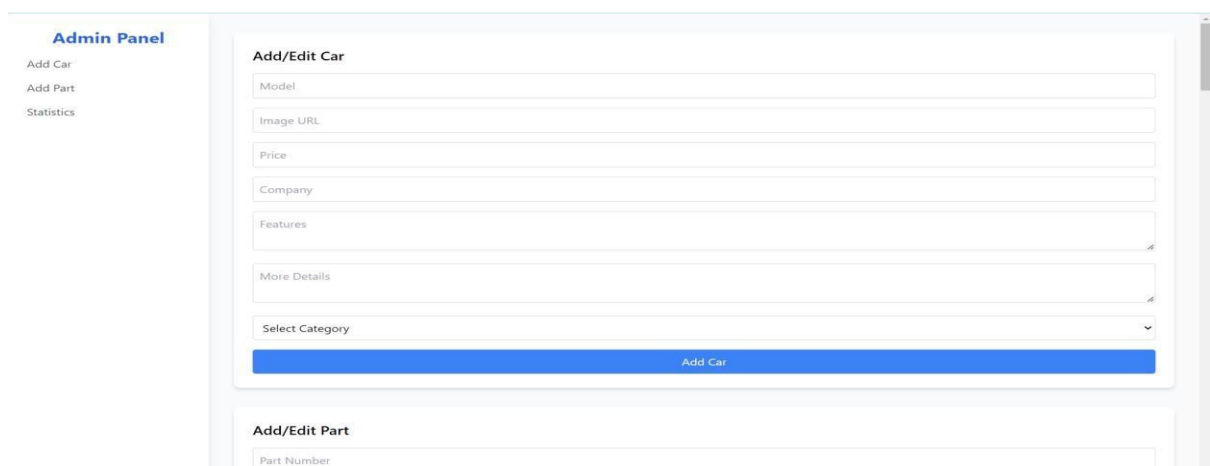
Ensures compatibility across devices (desktops, tablets, smartphones).

User Experience Considerations:

Focuses on creating an intuitive and enjoyable experience for users.

Interface Design

Admin panel:
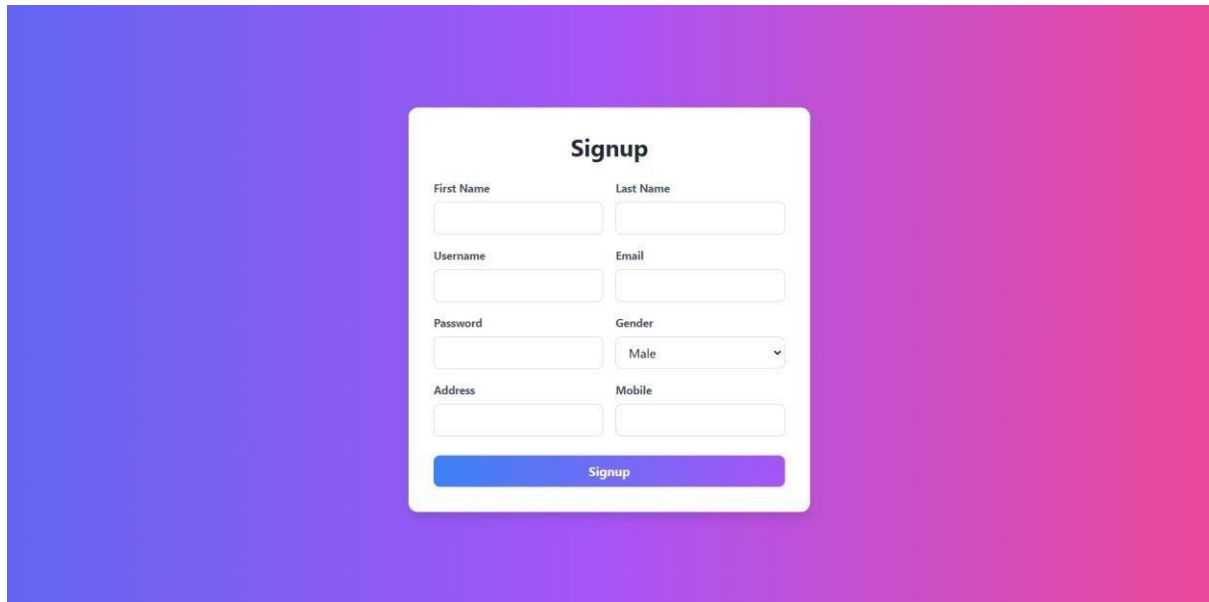
Home page :

Login page:

Signup page:

Home page:

Cart:

Shopping Cart

Your Items

6203-2RS
$ Remove

BMW 7 Series
$10000   Remove
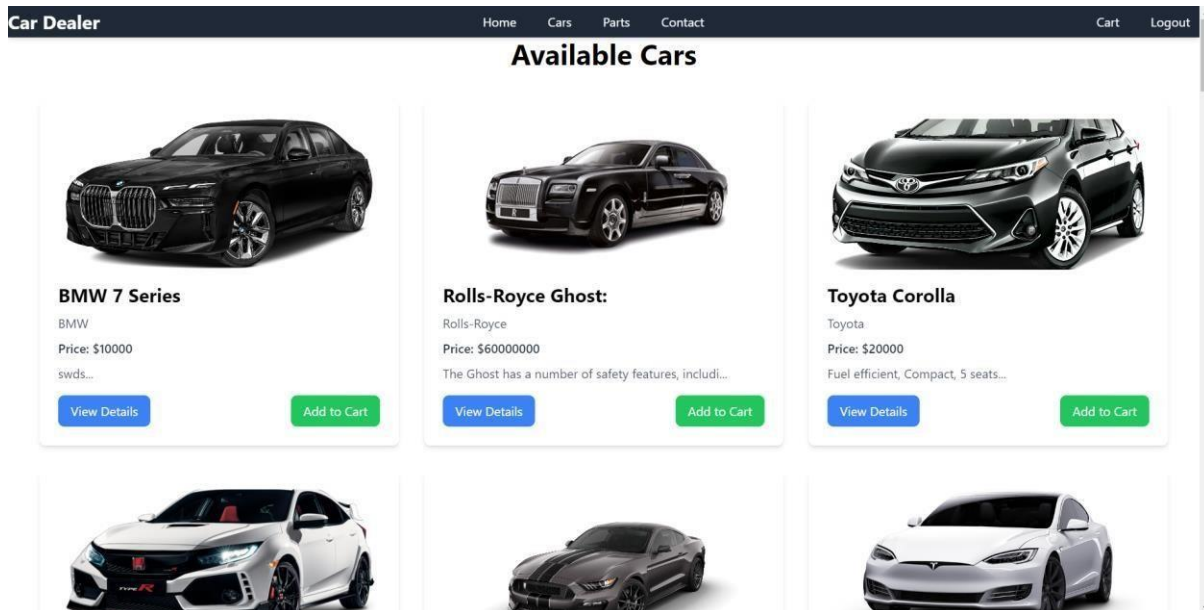
Total Cart Value: $NaN

Calculate EMI

| Loan Amount | 0 | 12 |

Calculate EMI

Checkout

Contact us:

Contact Us

Name

Email

Message

Send Message

Cars:

Testing

Testing Strategy:

Overview of the testing methodologies used.

Types of Tests:

1. Unit Tests: Validate individual components.

2. Integration Tests: Ensure components work together.

3. User Acceptance Testing: Gather feedback from end users.

4. Test Cases Developed: Lists specific scenarios tested to ensure functionality and reliability.

5. Feedback Mechanism: Highlights the importance of user feedback in refining the system.

Conclusion

Summary of Achievements:

Recaps the primary goals accomplished by the project.

Significance of the System:

Reflects on the transformative potential of the system for car dealerships.

References:

References	Details
For style	http://fonts.google.com/
For documentation	http://chatgpt.com/
For diagram	http://www.plantuml.com/Diagrams/plantuml/uml