INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT(IACSD), AKURDI, PUNE

Documentation On

Car Bazaar

PG-DAC Sept 2023

Submitted By:

Group No : 09

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Project Guide

Mr. Rohit Puranik
Center Coordinator

ABSTRACT

Abstract:

The "Car Bazaar" project aims to develop a comprehensive online platform for buying and selling Car . In today's digital age, consumers increasingly prefer the convenience of browsing and purchasing products online, including automobiles. The Car Bazaar platform provides a user-friendly interface for users to search, compare, and purchase Car from a diverse inventory. The system facilitates seamless transactions, including secure payment processing and order management.

Key features of the Car Bazaar project include a robust inventory management system, enabling sellers to list Car with detailed specifications and images. Users can easily search for Car based on their preferences, such as make, model, year, price range, and more. The platform also offers additional functionalities such as test drive bookings, allowing users to schedule appointments to test drive Car before making a purchase decision.

Furthermore, the Car Bazaar project prioritizes user experience and security, implementing measures to safeguard personal information and financial transactions. The platform incorporates authentication mechanisms to ensure that only authorized users can access sensitive functionalities such as making purchases or managing their accounts.

Overall, the Car Bazaar project aims to revolutionize the car buying experience by providing a convenient, transparent, and secure online marketplace for both buyers and sellers. With its comprehensive features and user-centric design, the Car Bazaar platform aims to become a leading destination for automotive enthusiasts and consumers seeking to buy or sell Car online.

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, Mrs. Manjiry Deshpande for providing me with the right guidance and advice at the crucial juncture sand for showing me the right way. I extend my sincere thanks to our respected Centre Co-Ordinator Mr. Rohit Puranik, for allowing us to use the facilities available. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

Aparna Ajay Pundalik(230941220026)

Jainvee Jain (230941220072)

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1. INTRODUCTION

In an era defined by rapid urbanization and increasing mobility, the automotive industry plays a pivotal role in providing individuals with the means to conveniently traverse their surroundings. The process of buying and selling Car, however, has traditionally been associated with various challenges and complexities. These range from the time-consuming nature of physical visits to dealerships, to the uncertainty of finding the right buyer or seller. To address these challenges and bring a paradigm shift to the automotive market, we introduce "Car Bazaar'' a innovative online platform designed to streamline and simplify the process of buying and selling Car .

The automotive industry has been a cornerstone of modern society, providing individuals with a sense of freedom and connectivity. As technological advancements continue to reshape various sectors, the automotive industry stands poised for transformation. Car Bazaar is a response to the growing demand for a digital ecosystem that not only connects buyers and sellers seamlessly, but also enhances the overall experience of Car procurement. By leveraging the power of technology, data, and user-centric design, Car Bazaar seeks to revolutionize the way Car are bought and sold.

1.1 Purpose

The purpose of this document is to provide a detailed specification of the features and functionalities of the "Car Bazaar" It outlines the requirements, system architecture, and user interactions.

1.2 Scope

The system is designed to manage information related to cars, users, companies, models, and KYC documents. It facilitates tasks such as car registration, user management, model and company registration, and document uploads, test drive at home, etc.

1.3 Objective of Project on Car Bazaar:

The Car Bazaar project is designed with a clear set of objectives to enhance the Car buying and selling process. The primary goal is to provide dealerships with a streamlined platform to efficiently manage their Car inventory, facilitating better operational efficiency.

Key objectives include creating a user-friendly experience for dealerships and customers, offering real-time Car availability information, ensuring secure user authentication for data protection, and enabling seamless communication between dealerships and customers.

The system focuses on maintaining accurate car information, enhancing data accuracy and integrity, and adhering to legal requirements related to data privacy and security.

With modern technology and a future-ready approach, the project aims to create a reliable, transparent, and efficient platform that benefits all stakeholders in the car buying and selling process.

1.4 Functionalities provided by Car Bazaar are as follows:

The "Car Bazaar" project provides a range of functionalities aimed at simplifying and enhancing the car buying and selling process for users. Some of the key functionalities offered by the project include:

1. Car Listings: Dealerships can easily list their available Car on the platform, providing detailed information about each Car, including make, model, year, mileage, price, and specifications.

2. Real-time Availability: The platform displays real-time information about Car availability, ensuring that customers are always presented with accurate and up-to-date Car options.

3. User Registration and Authentication: Users can create accounts and securely log in to the platform. Secure authentication mechanisms help protect user data and ensure that only authorized individuals can access the system.

4. Search and Filtering: Customers can search for Car based on their preferences, such as make, model, price range, and features. Advanced filtering options make it easy to narrow down search results.

5. Car Details: Detailed information about each listed Car is provided, including high- quality images, specifications, features, and seller contact information.

6. Inquiry Management: Customers can directly inquire about specific Car, allowing dealerships to promptly respond to inquiries and provide additional information.

7. Direct Messaging: The platform facilitates communication between buyers and sellers through direct messaging, enabling them to discuss Car details, negotiations, and other transaction-related matters.

8. User Profiles: Users can create and manage their profiles, including contact information, preferences, and previous inquiries.

9. Car Purchase: Customers have the option to express their interest in purchasing a Car directly through the platform, initiating the buying process.

10. Transaction Tracking: The platform offers tools to track the progress of transactions, from initial inquiry to final purchase.

11. Administrative Dashboard: Dealerships have access to a dashboard that allows them to manage their Car listings, inquiries, and transactions efficiently.

12. Data Integrity: The system ensures accurate and consistent Car information across the platform, reducing errors and misinformation.

13. Legal Compliance: The project adheres to relevant legal requirements and data protection regulations, ensuring user privacy and security.

14. User Support: The platform provides user support to address any technical issues, inquiries, or assistance needed during the buying or selling process.

In summary, "Car Bazaar" offers a user-friendly and efficient platform that brings together dealerships and customers in the Car buying and selling process. Through its comprehensive set of functionalities, the project aims to simplify the process, foster transparency, and create a seamless experience for all users involved.

2. REQUIREMENTS

Functional Requirements

FR 1. User Registration and Authentication:

- Users can register by providing necessary details.
- User authentication is required to access the system.
- Forgot password functionality allows users to reset their passwords.

FR 2. Car Inventory Management:

- Administrators can add, update, or delete car models and details.
- Cars can be categorized by make, model, and fuel type.
- Car images can be uploaded and associated with each model.

FR 3. Booking and Reservation:

- Customers can search for available cars based on various filters.
- Customers can view car details and make reservations.
- Admins can approve or reject bookings and update availability.

FR 4. User Profiles:

- Users can view and update their profiles.
- User profiles store personal information, contact details, and past bookings.

FR 5. Company and Model Management:

- Admins can manage car companies and their associated models.
- Each model includes information about the company, name, and specifications.

FR 6. Document Management (KYC):

- Users can submit and update their KYC documents.
- Admins can review and verify submitted documents.

FR 7. Image Upload:

- Users can upload images for their cars while selling cars.
- Users can view images.

FR 8. Error Handling and Reporting:

- The system handles errors gracefully and provides appropriate error messages.
- Admins can access logs and error reports for trouble shooting.

Non Functional Requirements:

NFR 1. Security:
- User passwords are securely stored using encryption techniques.
- Access controls ensure that users can only access authorized features.

NFR 2. Performance:
- The system should handle a large number of simultaneous users without significant slowdowns.
- Image loading and retrieval should be efficient for a smooth user experience.

NFR 3. Scalability:
- The system should be designed to accommodate future growth and increased user activity.

NFR 4. Usability:
- The user interface should be intuitive and user-friendly for both customers and administrators.
- Clear and concise error messages should guide users through any issues.

NFR 5. Reliability:
- The system should be available and operational 24/7 with minimal downtime.

NFR 6. Data Integrity:
- Data integrity and consistency are maintained through proper validation and database design.

NFR 7. Data Privacy:
- User data, especially personal and sensitive information, should be stored securely.

Other Requirements:

Hardware and Network Interfaces:

Back-end Server Configuration:
- Intel Pentium-IV Processor
- 1 RAM
- 1 Raid Controller Card
- 32-bit Ethernet Controller (100 Base-T)
- 8 x 2.0 GB Fast SCSI/2 with Raid Support
- 2.88 MB FDD
- 48x CD ROM Drive

- SVGA Colour Monitor on PCI with 1MB RAM
- 101 Keys Keyboard
- 1 Microsoft Mouse with pad
- 4/8 GB DAT
- One Serial & Two Parallel Ports
- Internet Information Server (IIS)
- Microsoft Transaction Server (MTS)

Front-end Client Configuration:
- Intel Pentium-III @ 650 MHz Processor
- 128 MB SDRAM
- 10 GB Hard Disk Drive

Software Interfaces:

Software configuration for back-end Services:
- DataBase- MySQL 7.0
- SpringBoot-Spring Data JPA
- Java
- IDE:-STS Spring Tool Suit

Software configuration for front-end Services:
-React.Js
-IDE:VSCode

Web Browser:- Chrome

3. DATABASE DESIGN

Database Design

The following table structures depict the database design.

Table 1: User:

```
mysql> desc user;
+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| id           | bigint       | NO   | PRI | NULL    | auto_increment |
| address_line | varchar(100) | YES  |     | NULL    |                |
| city         | varchar(40)  | YES  |     | NULL    |                |
| country      | varchar(40)  | YES  |     | NULL    |                |
| dob          | date         | YES  |     | NULL    |                |
| first_name   | varchar(40)  | YES  |     | NULL    |                |
| last_name    | varchar(40)  | YES  |     | NULL    |                |
| password     | varchar(40)  | YES  |     | NULL    |                |
| phone_no     | varchar(10)  | YES  |     | NULL    |                |
| postal_code  | int          | YES  |     | NULL    |                |
| role         | int          | YES  |     | NULL    |                |
| state        | varchar(40)  | YES  |     | NULL    |                |
| email        | varchar(40)  | YES  |     | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
13 rows in set (0.09 sec)
```

Table 2: vehicle:

```
ysql> desc vehicle;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| id          | bigint        | NO   | PRI | NULL    | auto_increment |
| brand       | varchar(40)   | YES  |     | NULL    |                |
| description | varchar(1000) | YES  |     | NULL    |                |
| is_active   | bit(1)        | YES  |     | NULL    |                |
| launch_date | date          | YES  |     | NULL    |                |
| model       | varchar(40)   | YES  |     | NULL    |                |
| type        | varchar(40)   | YES  |     | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
7 rows in set (0.01 sec)
```

Table 3: cart:

```
mysql> desc cart;
+-----------------+--------------+------+-----+---------+----------------+
| Field           | Type         | Null | Key | Default | Extra          |
+-----------------+--------------+------+-----+---------+----------------+
| id              | bigint       | NO   | PRI | NULL    | auto_increment |
| vehicle_id      | int          | NO   |     | NULL    |                |
| vehicle_varient | varchar(255) | YES  |     | NULL    |                |
+-----------------+--------------+------+-----+---------+----------------+
3 rows in set (0.17 sec)
```

Table 4: vehicle-order:

```
mysql> desc vehicle_order;
+------------------+--------------+------+-----+---------+----------------+
| Field            | Type         | Null | Key | Default | Extra          |
+------------------+--------------+------+-----+---------+----------------+
| id               | bigint       | NO   | PRI | NULL    | auto_increment |
| vehicle_id       | int          | YES  |     | NULL    |                |
| delivery_address | varchar(100) | YES  |     | NULL    |                |
| final_price      | double       | YES  |     | NULL    |                |
| varient_id       | int          | YES  |     | NULL    |                |
| user_id          | bigint       | YES  | MUL | NULL    |                |
+------------------+--------------+------+-----+---------+----------------+
6 rows in set (0.04 sec)
```

Table 5: payement:

```
ysql> desc payment;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| id             | bigint       | NO   | PRI | NULL    | auto_increment |
| payment_status | varchar(255) | YES  |     | NULL    |                |
| payment_type   | varchar(255) | YES  |     | NULL    |                |
| order_id       | bigint       | YES  | MUL | NULL    |                |
| user_id        | bigint       | YES  | MUL | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
5 rows in set (0.01 sec)
```

Table 6: vehicle-varient:

```
mysql> desc vehicle_varient;
+-------------------+--------------+------+-----+---------+----------------+
| Field             | Type         | Null | Key | Default | Extra          |
+-------------------+--------------+------+-----+---------+----------------+
| id                | bigint       | NO   | PRI | NULL    | auto_increment |
| color             | varchar(40)  | YES  |     | NULL    |                |
| description       | varchar(400) | YES  |     | NULL    |                |
| ex_showroom_price | double       | YES  |     | NULL    |                |
| features          | varchar(400) | YES  |     | NULL    |                |
| is_available      | bit(1)       | YES  |     | NULL    |                |
| luanch_date       | datetime(6)  | YES  |     | NULL    |                |
| type              | varchar(40)  | YES  |     | NULL    |                |
| varient_name      | varchar(40)  | YES  |     | NULL    |                |
+-------------------+--------------+------+-----+---------+----------------+
9 rows in set (0.02 sec)
```

Table 7:test-drive-booking:

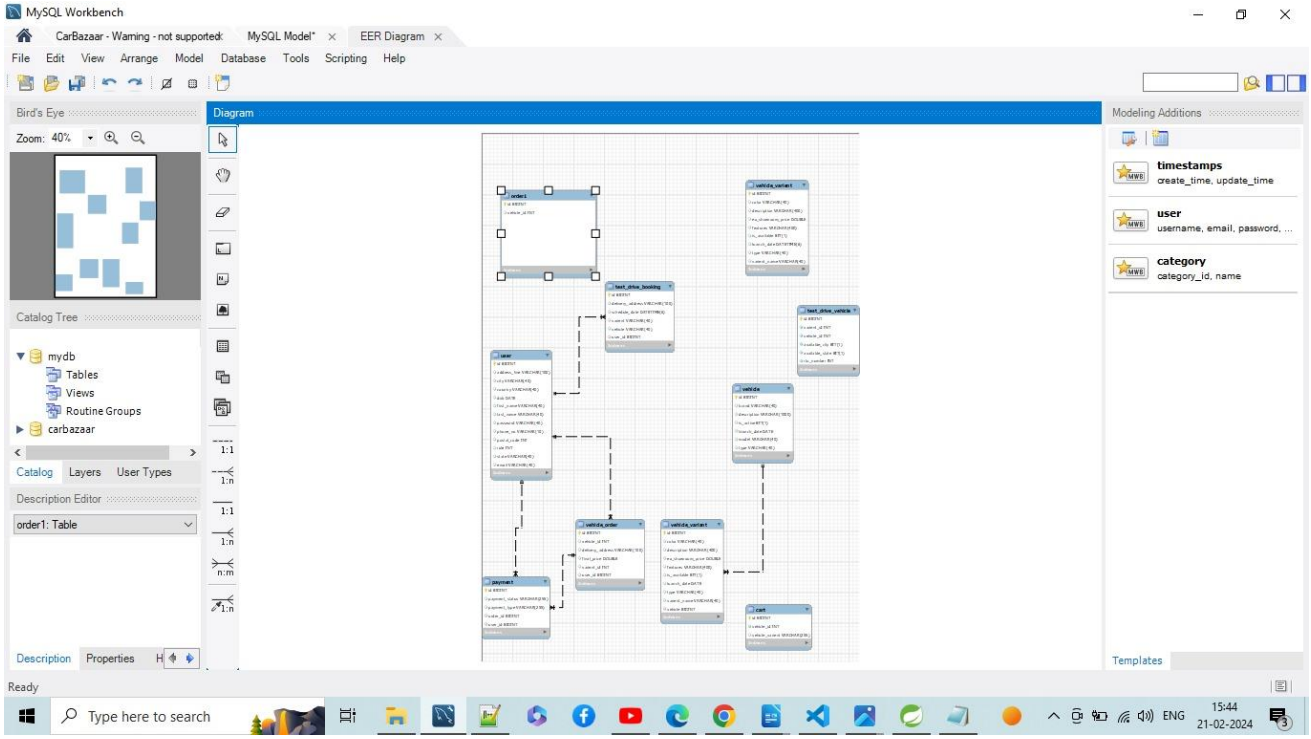
```
mysql> desc test_drive_booking;
+------------------+--------------+------+-----+---------+----------------+
| Field            | Type         | Null | Key | Default | Extra          |
+------------------+--------------+------+-----+---------+----------------+
| id               | bigint       | NO   | PRI | NULL    | auto_increment |
| delivery_address | varchar(100) | YES  |     | NULL    |                |
| schedule_date    | datetime(6)  | YES  |     | NULL    |                |
| varient          | varchar(40)  | YES  |     | NULL    |                |
| vehicle          | varchar(40)  | YES  |     | NULL    |                |
| user_id          | bigint       | YES  | MUL | NULL    |                |
+------------------+--------------+------+-----+---------+----------------+
6 rows in set (0.03 sec)
```

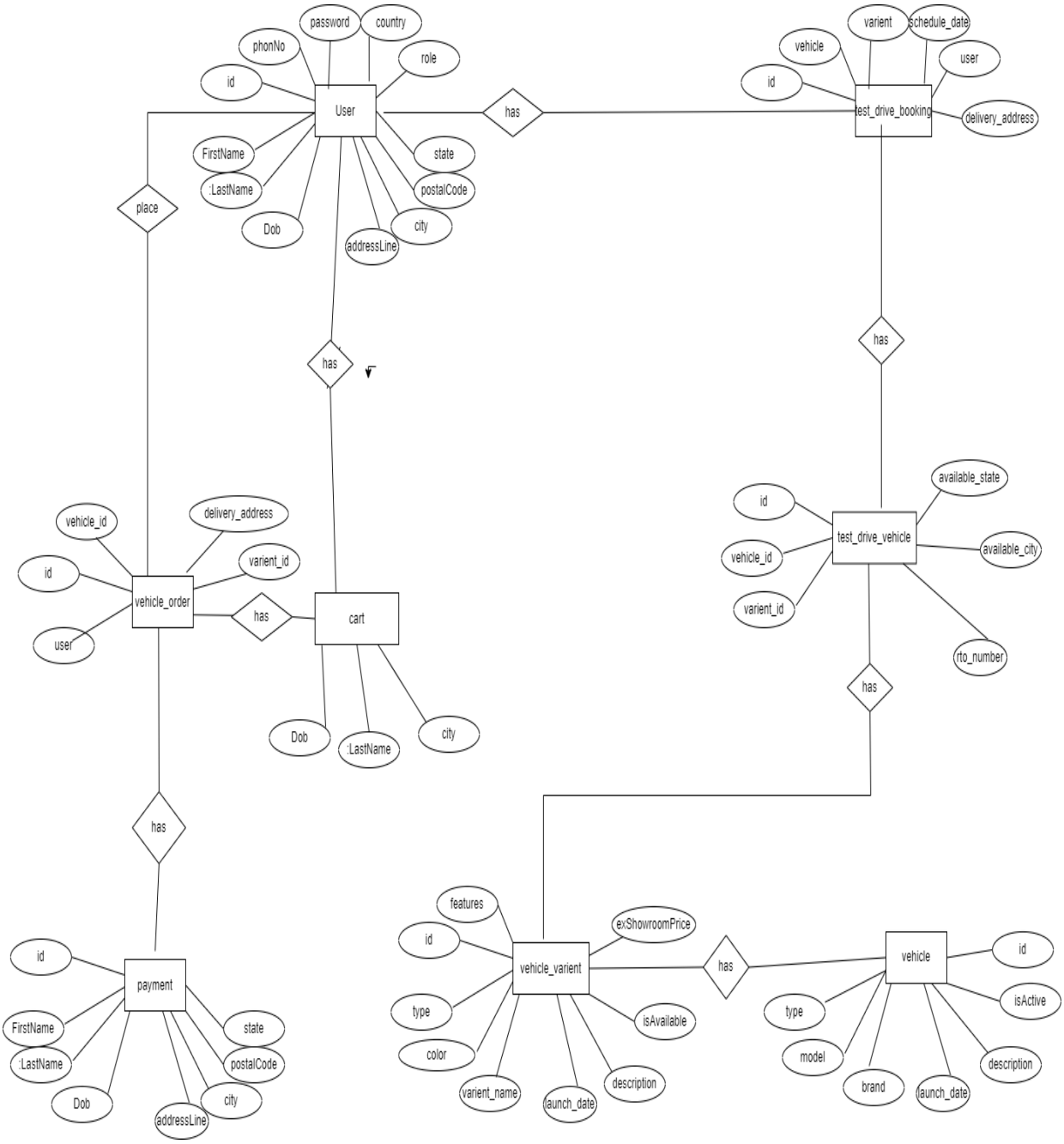
Table 8: test-drive-vehicle:

```
mysql> desc test_drive_vehicle;
+-----------------+--------+------+-----+---------+----------------+
| Field           | Type   | Null | Key | Default | Extra          |
+-----------------+--------+------+-----+---------+----------------+
| id              | bigint | NO   | PRI | NULL    | auto_increment |
| varient_id      | int    | NO   |     | NULL    |                |
| vehicle_id      | int    | NO   |     | NULL    |                |
| available_city  | bit(1) | NO   |     | NULL    |                |
| available_state | bit(1) | NO   |     | NULL    |                |
| rto_number      | int    | NO   |     | NULL    |                |
+-----------------+--------+------+-----+---------+----------------+
6 rows in set (0.01 sec)
```

4. APPENDIX A

Entity Relationship Diagram:




password
country
phonNo
role
id
User
has
FirstName
:LastName
Dob
addressLine
city
state
postalCode
place
varient
schedule_date
vehicle
user
id
test_drive_booking
delivery_address
has
has
id
available_state
vehicle_id
test_drive_vehicle
available_city
varient_id
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has
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delivery_address
id
varient_id
vehicle_order
has
cart
user
Dob
:LastName
city
has
features
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exShowroomPrice
vehicle_varient
has
vehicle
id
isActive
type
isAvailable
color
varient_name
launch_date
description
type
model
brand
launch_date
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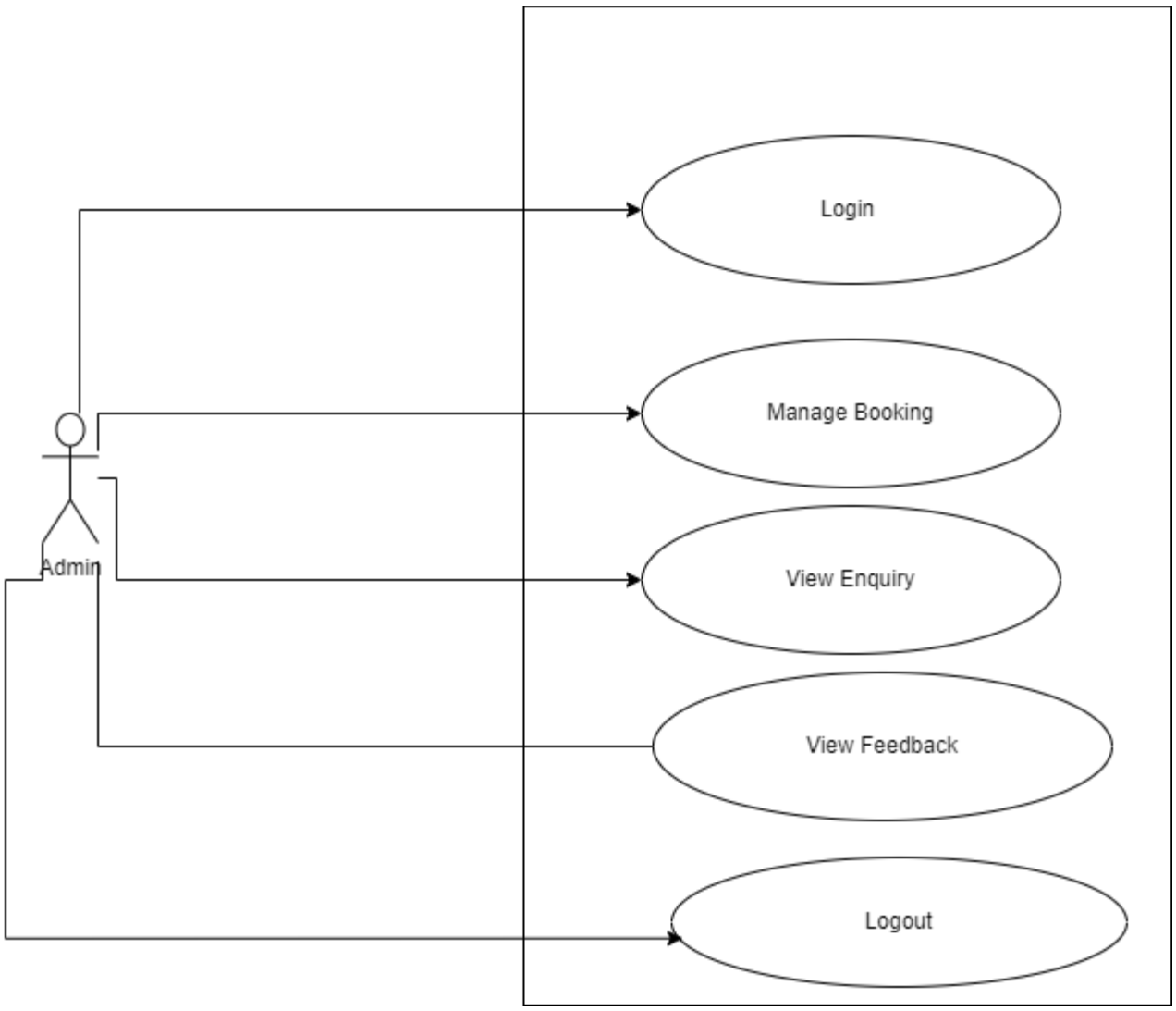
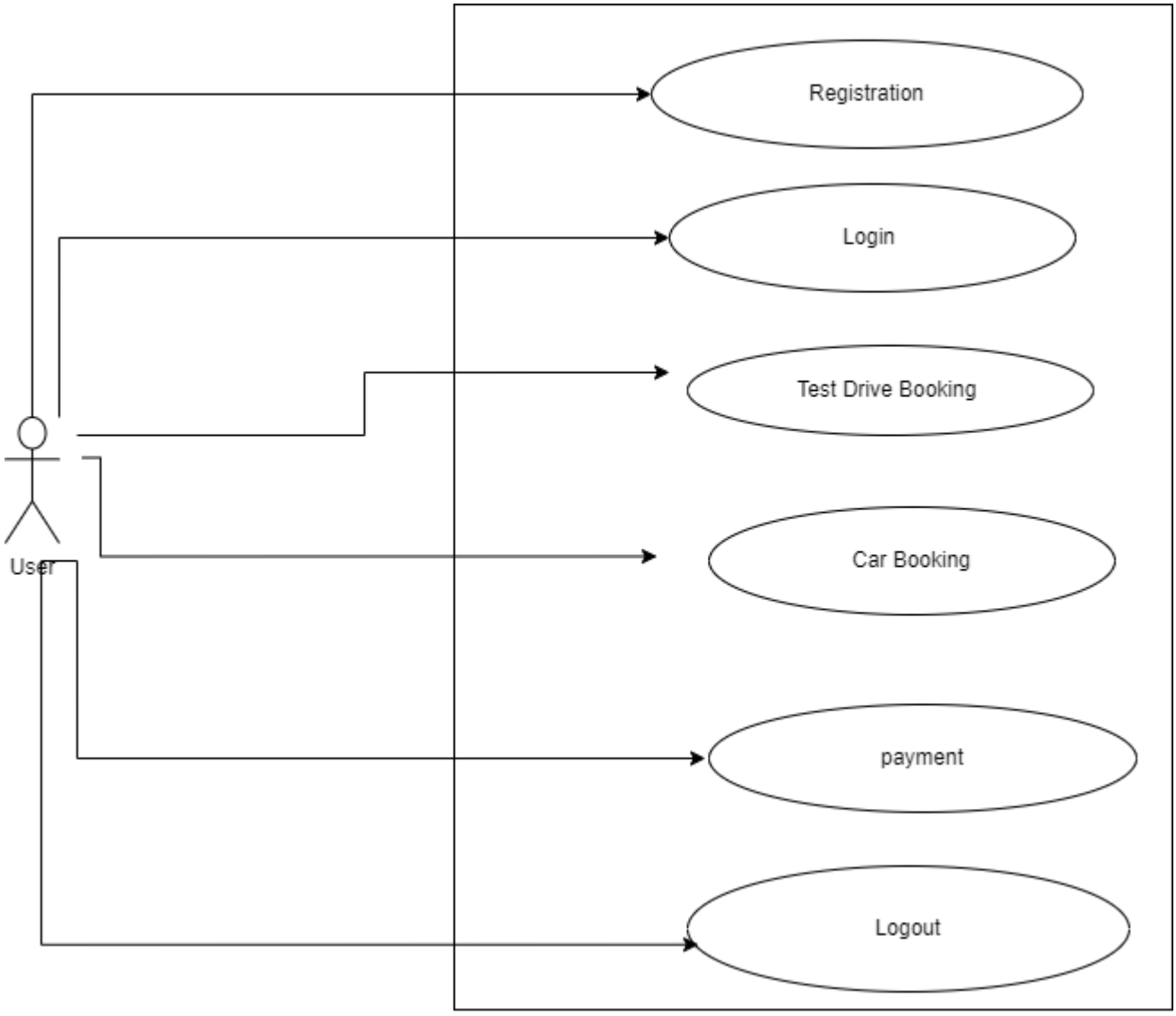
payment
FirstName
:LastName
Dob
addressLine
city
state
postalCode

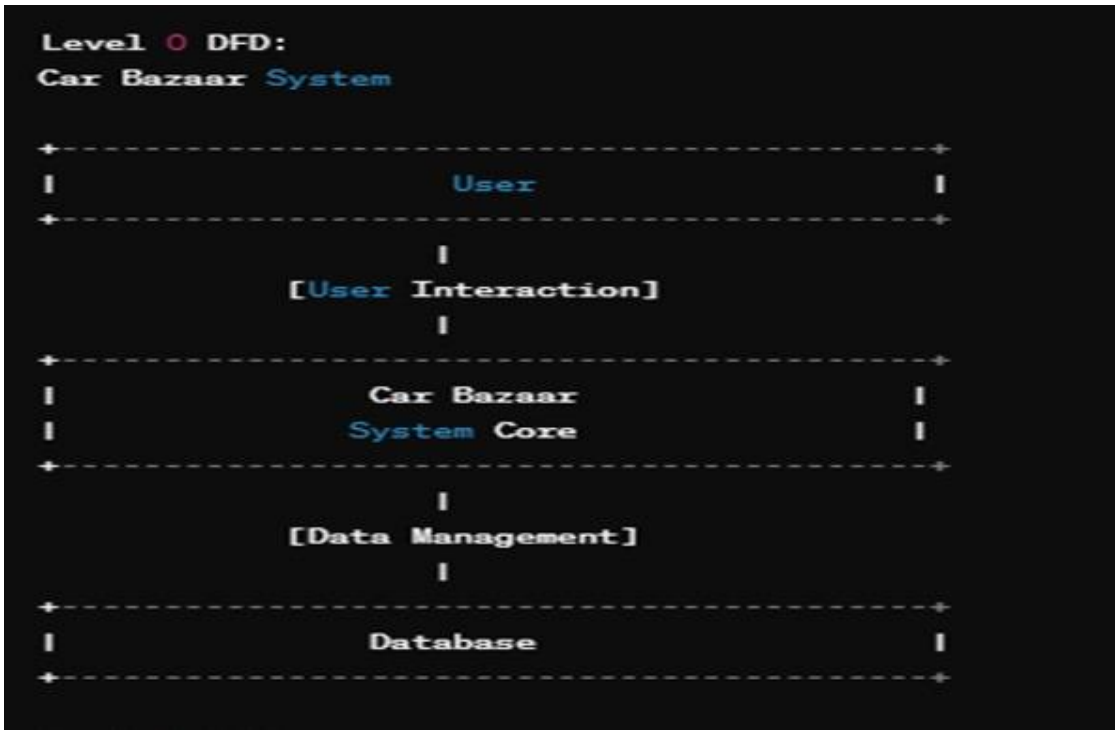
Use Case Diagram:



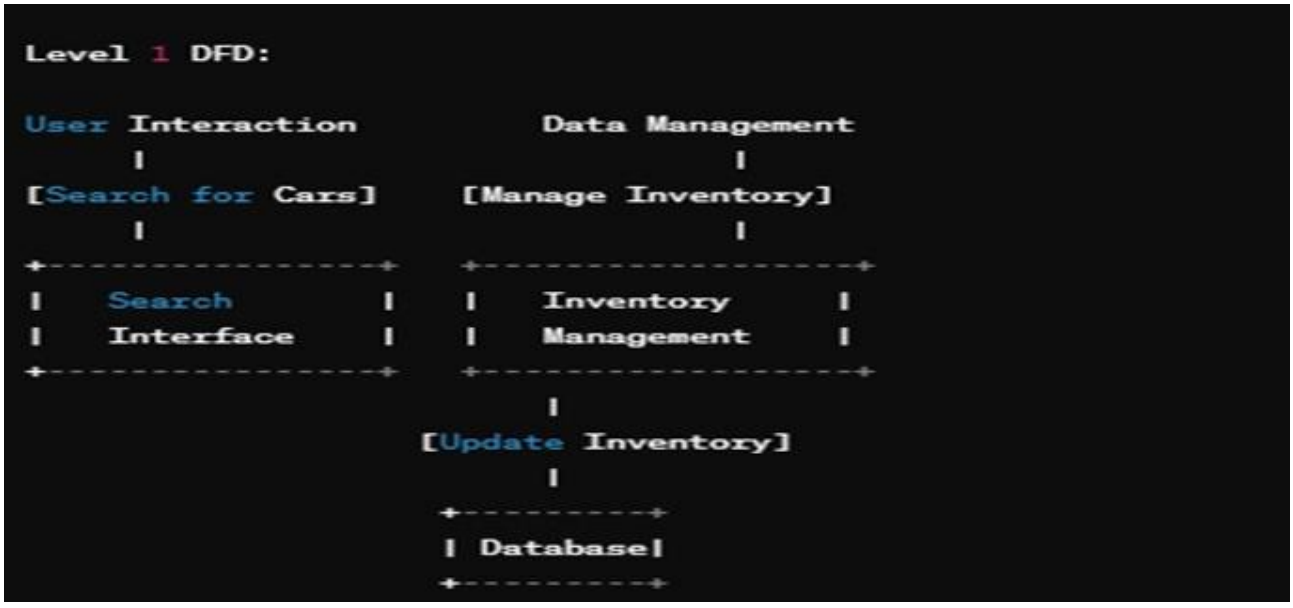

Registration
Login
Test Drive Booking
User
Car Booking
payment
Logout

Data Flow Diagram:

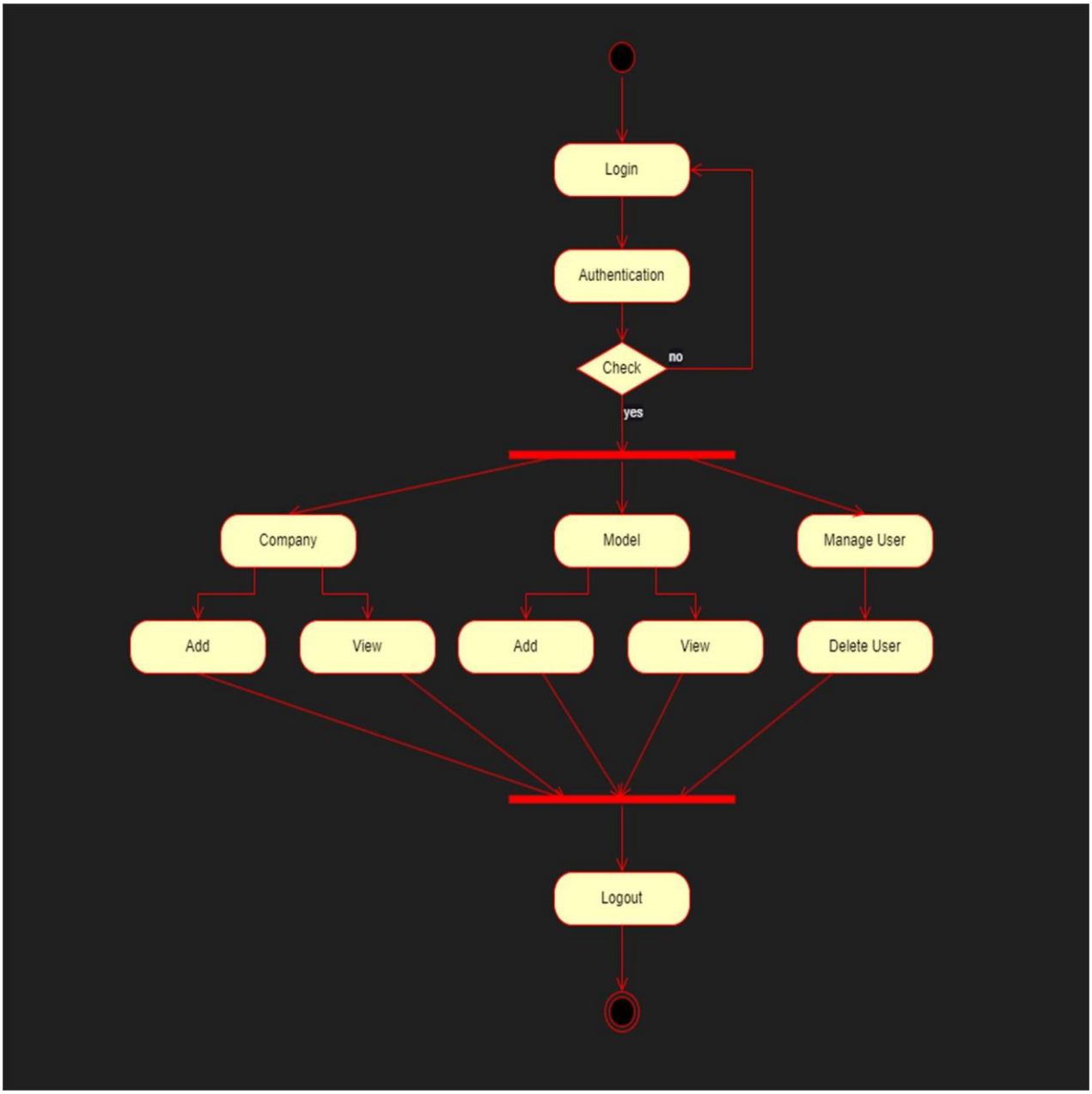
Level 0:



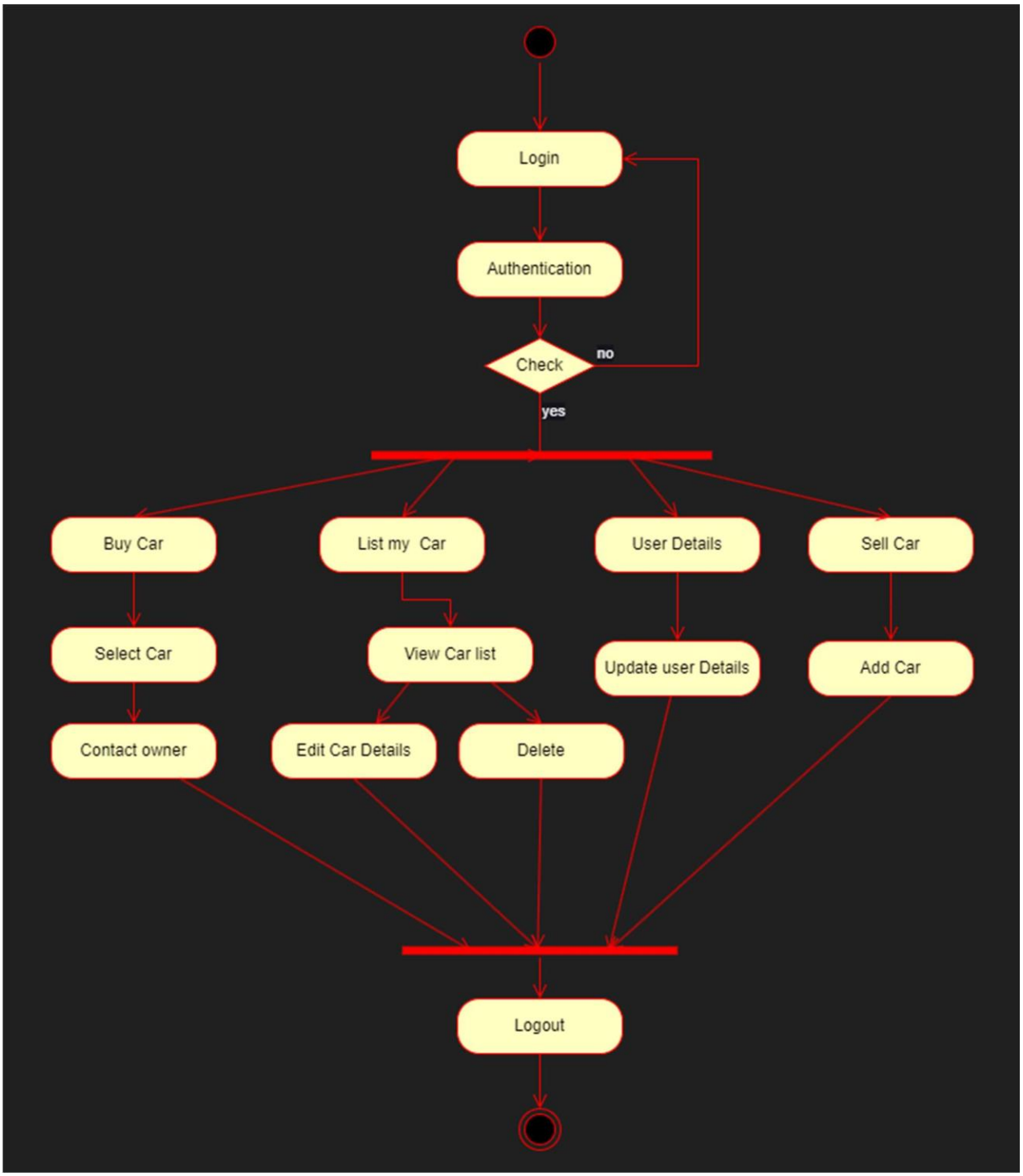
Level 1:



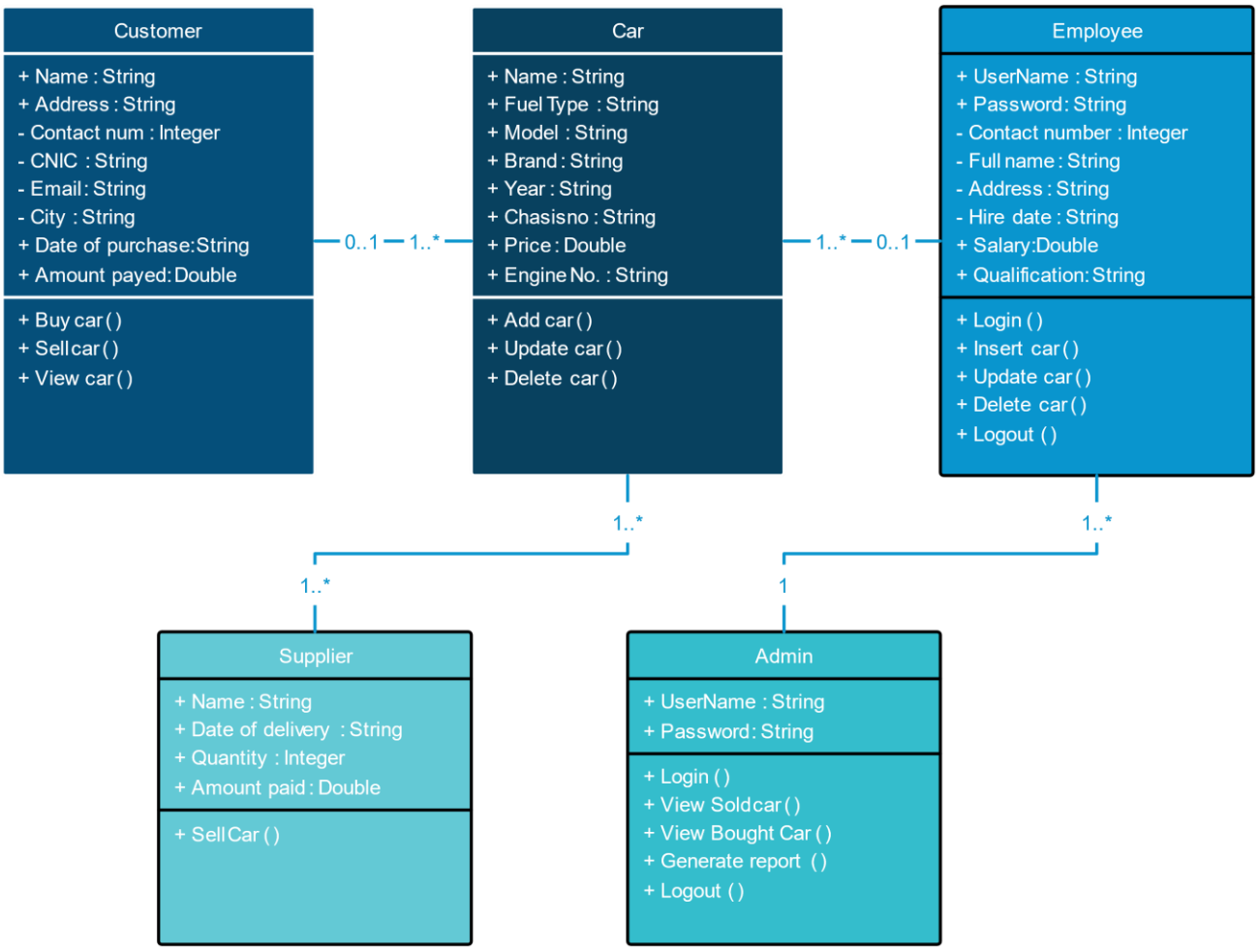
Admin Activity Diagram :



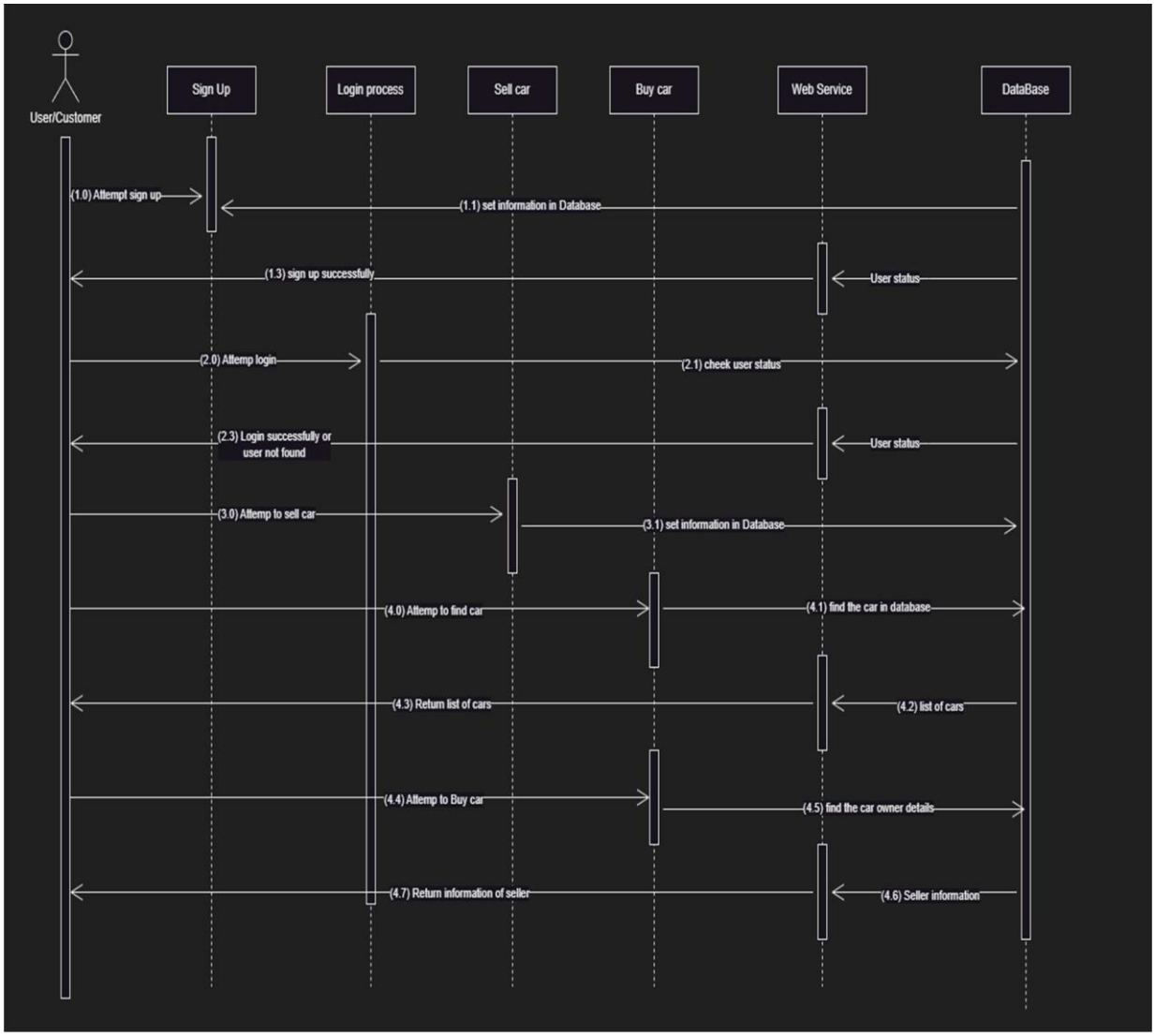
User Activity Diagram :



Class diagram :

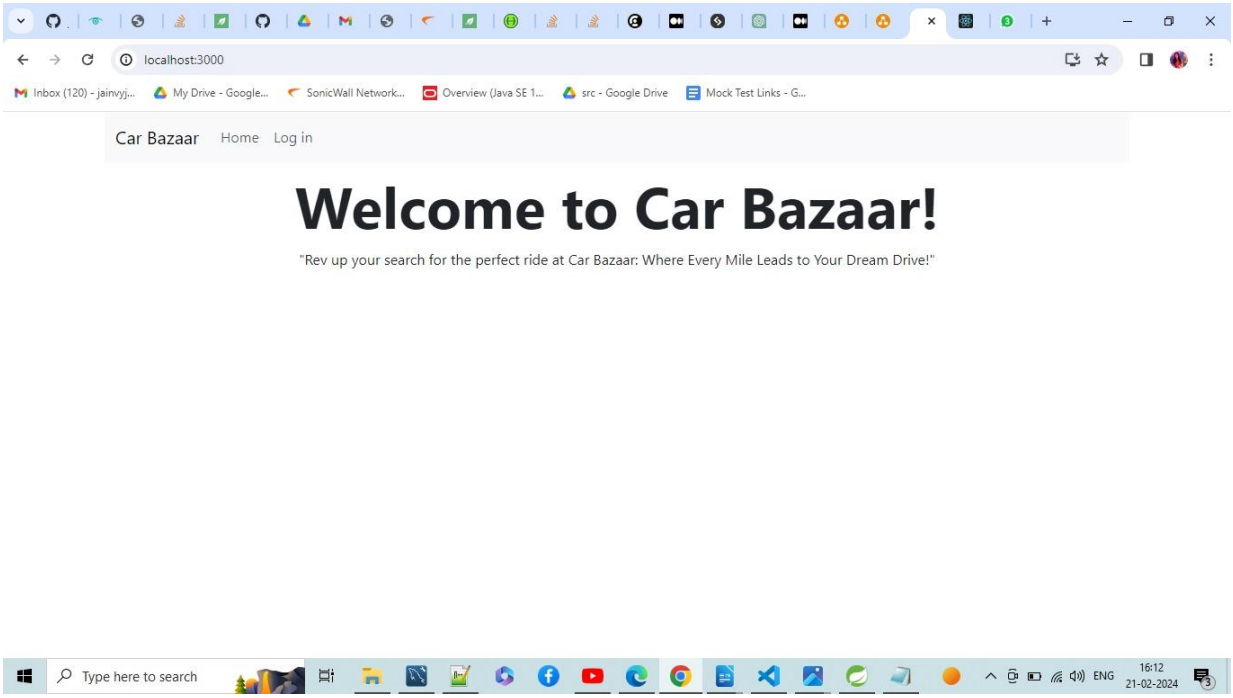


Sequence diagram :

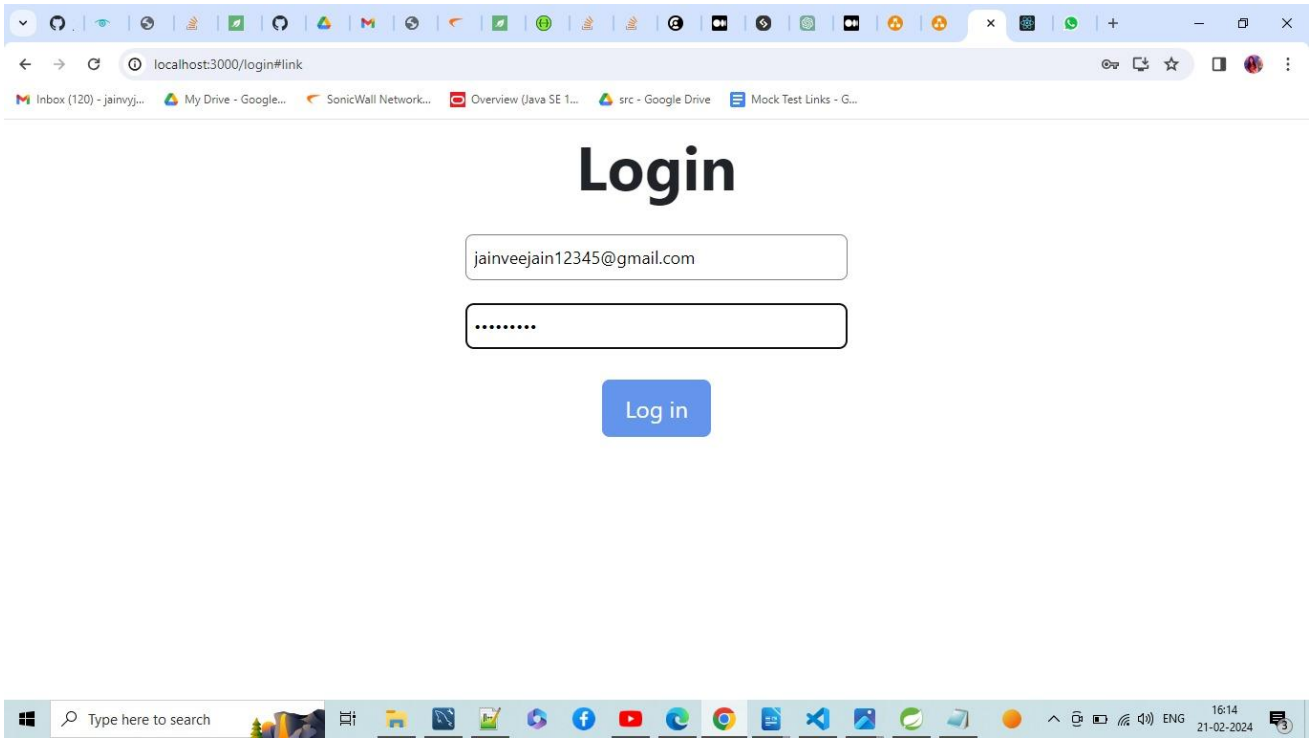


5. APPENDIX A

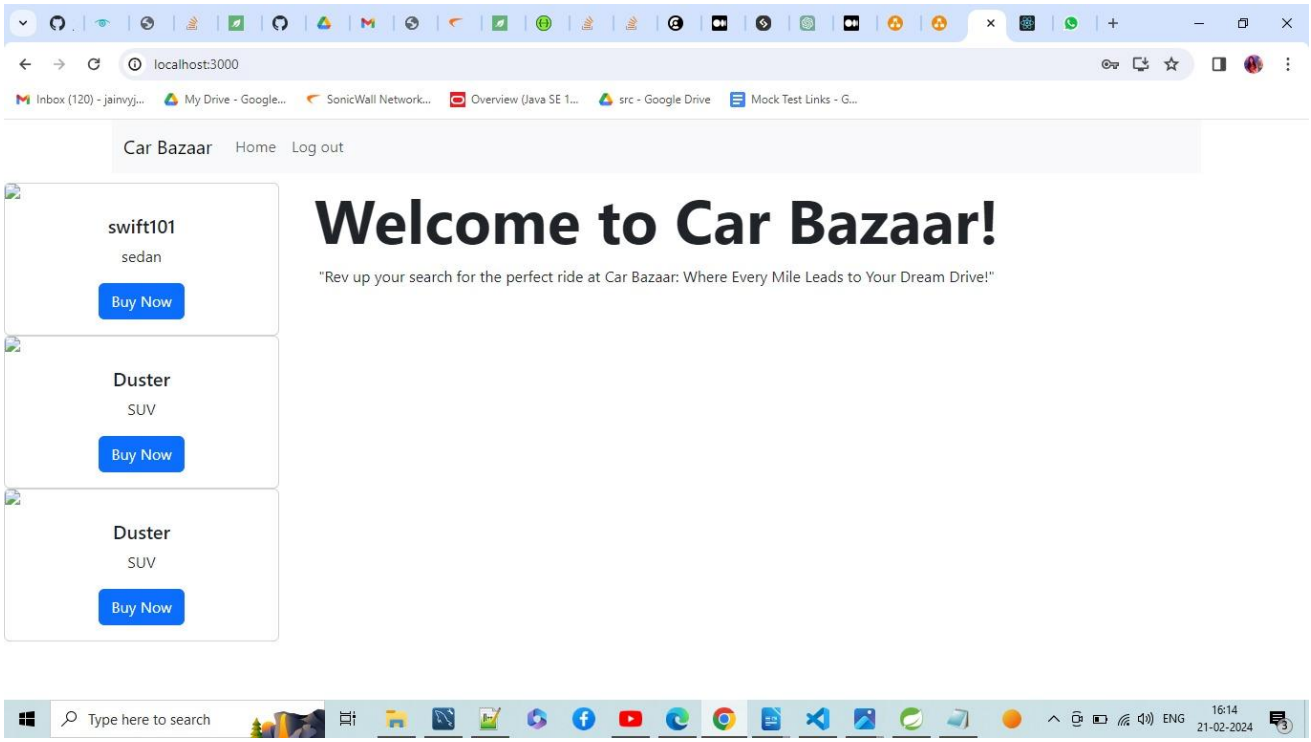
Homepage:



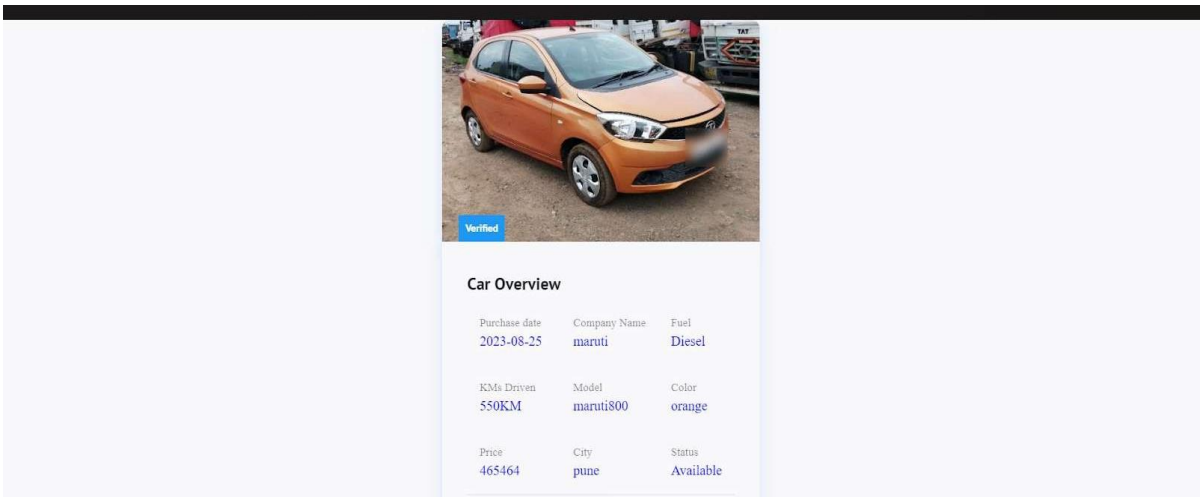
Login:



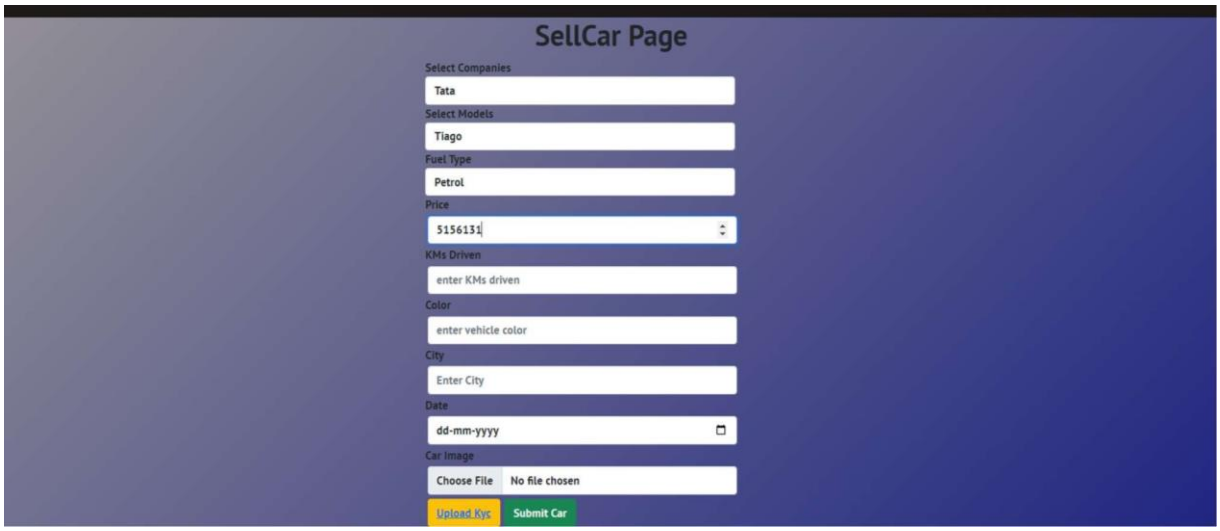
User Dashboard:



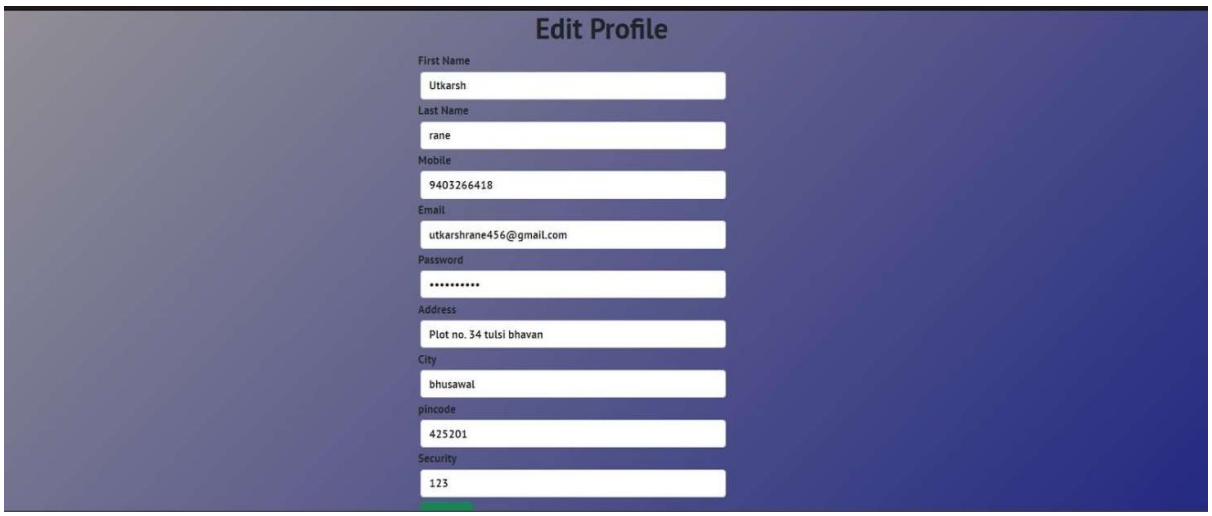
Buy Car:



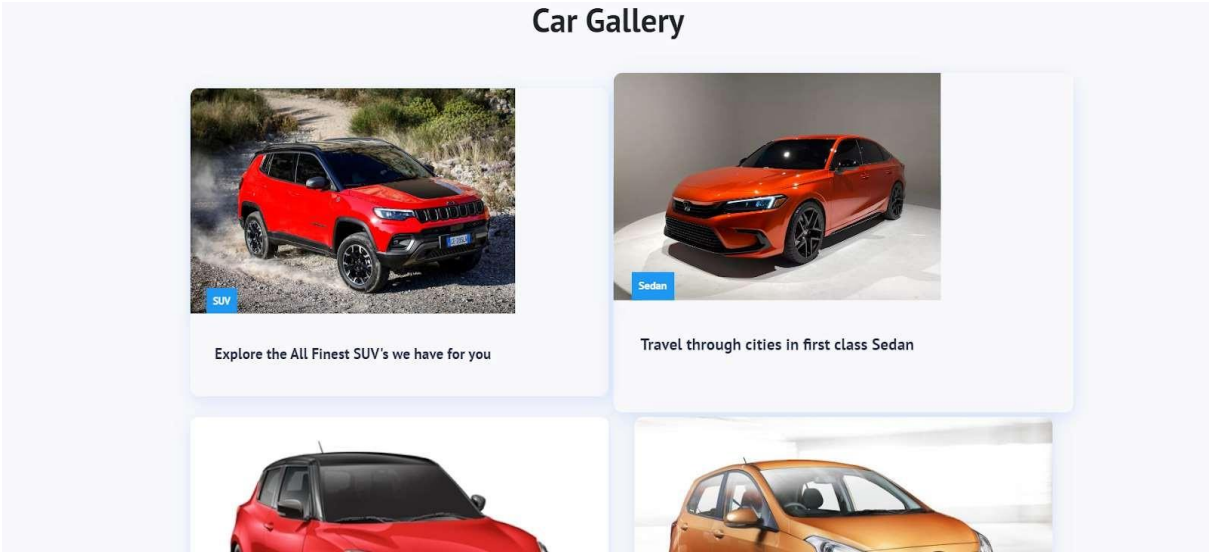
Sell Car :



Edit Profile Details:



Car Gallary:


Car Gallery
SUV
Explore the All Finest SUV's we have for you
Sedan
Travel through cities in first class Sedan

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tutorial http://www.w3.org

http://www.wikipedia.org

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