

Project Report
On
The Car Market

Submitted in partial fulfillment for the award of

Diploma in Advance Computing from
C-DAC, NOIDA



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1. Introduction of Project:

Car Trading means buy/sell used cars including budget, model, prices, company etc. Our project is meant to give people a better and trustworthy platform where they can sell and buy cars of their own choice and obviously on their own terms and condition. With the help of internet and computer systems a man from remote area can buy/sell his car from anywhere the country/world. This will eliminate the barrier of distance and area. The purpose of this project is to create a Car Sales System that allows the consumer to enter Car Information. To do this, the customer has to view the Car Sales System program. Only the driver will have access to enter the Cars info.

2. Purpose:

The main purpose of “The Car Market” is sell/buy used/second-hand cars online. Using this project anyone can buy/sell used cars online including by budget, cities, model, company etc. In this project, we want to make some modules like car seller module, car buyer module, find cars including budget, car comparisons etc. It provides the best used cars for the cheapest prices, creating more value for customers visiting. It provides the message of new dealing cars, used cars to the visitor who register in the website. This system is based on the buyer budget, seller budget for the buying/selling used cars. The main goal is to provide easy way for buying and selling used cars online.

3. Scope:

This project allows admin to Maintain the data of the sellers and the users as well as the details of the cars registered for sale.

Buyer will search for the car he wants to buy. the buyer can filter the data based on price, car brand, model, purchase year, kms travelled, type of car (diesel, petrol), variant of car (automatic/manual) the buyer can search for the car he wants to buy. the buyer can filter the data based on price, car brand, model, purchase year, kms travelled, type of car (diesel, petrol), variant of car (automatic/manual).

Seller will enter the details of the car and the required documents (vehicle registration, vehicle purchase, insurance, road tax receipt) will be uploaded. These details will include car brand, model, purchase/registration year, type of car (petrol / diesel), variant of car(automatic/manual), registration state, registration number, Kms travelled as well as whether the seller is first owner or he has bought the car from someone. After verification by admin, the vehicle will be visible on the application for sale.

4. Overall Description

There are three modules in this project.

1. Admin
2. Seller
3. Buyer

4.1 Project Perspective

This project will provide facility to all buyer, seller and dealers for buy/sell cars. If anyone want to buy used cars online, then first he will register in this website and then he can see all the details about the sell used cars including prices, model and cities.

4.2 PROJECT FUNCTION

1) Admin

- Manage the authentication
- Maintain the data of the sellers and the users as well as the details of the cars registered for sale.
- Manages database.
- Manages feedback.

2) Seller

- Register on the application using name, email-id, mobile number.
- Once all the mandatory details are entered, the details of the car will be entered and the required documents (vehicle registration, vehicle purchase, insurance, road tax receipt) will be uploaded.

- These details will include car brand, model, purchase/registration year, type of car, variant of car(automatic/manual), registration state, registration number.
- Once the deal is done between the buyer and seller then the seller can mark his vehicle as sold.

3) Buyer

- Register on the application using name, email-id, mobile number.
- Once all the mandatory details are entered, the buyer can search for the car he wants to buy. The buyer can filter the data based on price, car brand, model, purchase year, kms travelled, type of car, variant of car.
- After the buyer finds a suitable car, he/she will request the contact details of the seller using the application.
- Once the deal is done between the buyer and seller then a feedback will be taken from the user about his/her experience of our application.

5. Specific Requirements

5.1 Functional Requirements

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be

Description

- **5.1.1 Home** – This is our main page where all visitors can access our home page.
- **5.1.2 Registration and Login** - Enable a new user to register to the system. Authenticate and allow user to login on the web application.
- **5.1.3 Buyer** – From here customer can see all the cars which he want to buy and choose cars by its model or company name.
- **5.1.4 Seller** – In this page Seller can upload all details regarding his car.
- **5.1.5 About Us** - This module connects us to the page where there is a brief description about Pre-owned car System.
- **5.1.6 Contact Us** - This module connects us to the contact section which will allow the users to contact us in case of any queries or emergency.
- **5.1.7 Logout** - If the customer has login to his account, he can logout of his account to maintain safety of account.
- **5.1.8 Admin** - This section is relevant to the admin of the website. The admin can check who can query for a specific order, can add products to the website or do other related roles.

5.2 Non-Functional Requirements:

Following Non-Functional Requirements will be there in the insurance to the internet:

- Secure access to consumer's confidential data.
- 24X7 availability.
- Flexible service-based architecture will be highly desirable for future extension.

5.3 Security Requirements

Separate logins with different roles are provided for operator based on the requirement of operation. Administrator will have the overall control over all the users.

5.4 Software Quality Attributes:

Robustness

Software is robust; it has to behave reasonably even in circumstances that were not anticipated in requirement specification.

Reliability

Software is to be reliable, the user can depend on it, and it will operate as expected.

Correctness

Software is functionally correct if it behaves according to the functional requirement specification.

Usability

Software is user friendly; the user will find it easy to use. Usability depends on the consistency of its user interfaces. Usability is achieved through standard user interfaces.

Flexibility

Software is flexible; it facilitates addition of functionality or modification of existing functions.

Reusability

Software is reusable; it can be used for similar applications with minor modifications.

Availability

The degree to which the system is operational and accessible when required for use is addressed in terms of making the server availability 24X7.

Adaptability

The ease with which software satisfies differing system constraints and user needs.

6. External Interface Requirements:

6.1 User Interfaces

The targeted browser Mozilla FireFox 3.6, Google Chrome.

6.2 Hardware Interfaces

The Proposed Server configuration is as follows:

Primary Server (Web server & Database Server)

Sl. No.	ITEM	Specification
01	Processor	PENTIUM 4 Or above
02	Speed	1.8 GHz
03	No., of processor	One
04	Memory	50 GB Or Above
05	FSB	1Ghz or more
06	Processor cache	2MB or more
07	RAID controller	0 and 1
08	HDD type	SATA
09	No., of HDD bays	Min 1
10	HDD capacity	1TB
11	Optical Drive	DVD ROM
12	Network	2 Gigabit RJ45 connectors
13	USB ports	Four
14	Motherboard ports	USB/RJ45/Video
15	Expansion slots	Two
16	Tower Model	-
17	OS	Windows 8 And above
18	Monitor	19" TFT Monitor

19	Key board	101 Keys PS2 or USB
20	Mouse	Optical

Client Machine: -

- Desktop
- Pentium IV 2.0 GHz or above
- Minimum 1 GB RAM, HDD 100 GB.
- 107 key keyboards, Scroll Mouse and 15” Monitor

7. Tools and Technologies:

React, Advanced java, MySQL, Apache Tomcat Server, Visual Studio Code,

7.1 Standards:

IEEE and ISO

7.2 Platforms and Database:

Desktop Client Based:

Windows/Linux & MongoDB Semantic Web

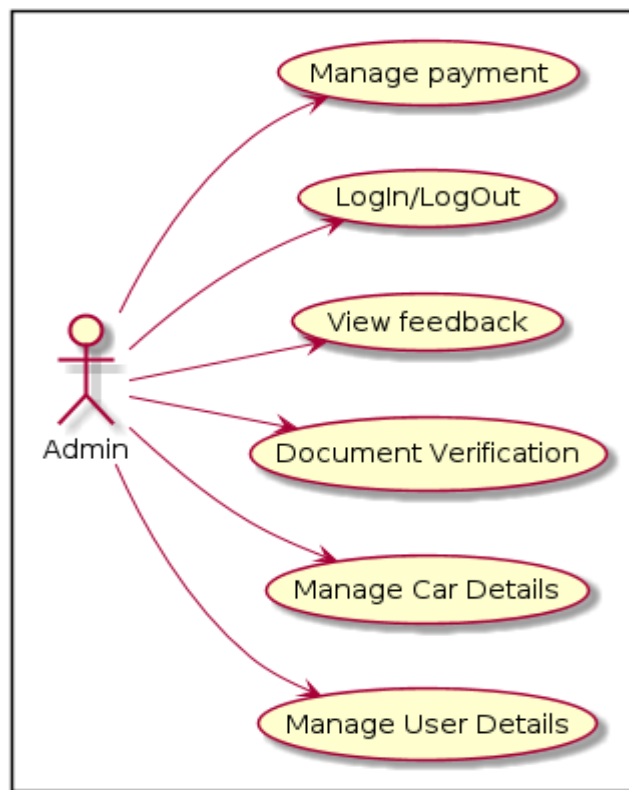
7.3 Communication Protocols:

Desktop Client Based: http, https

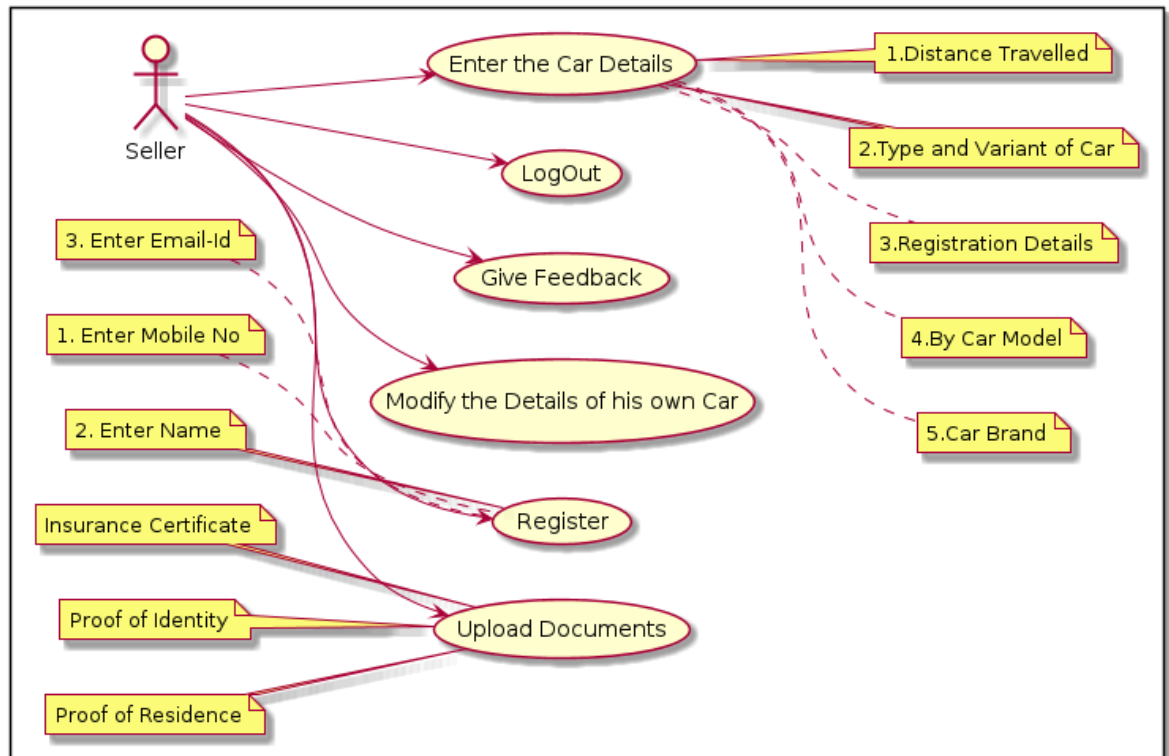
Mobile Client Based: 3G/4G, Wi-Fi

8. Use Case Diagram

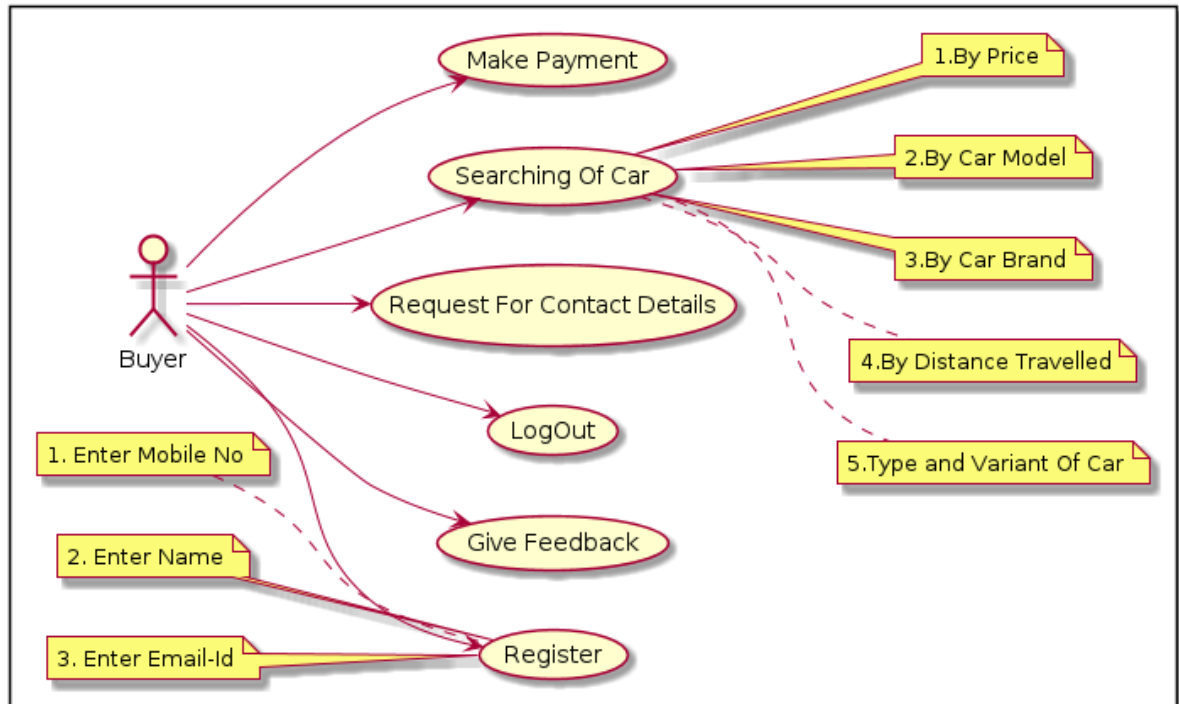
8.1 Use Case of Administrator



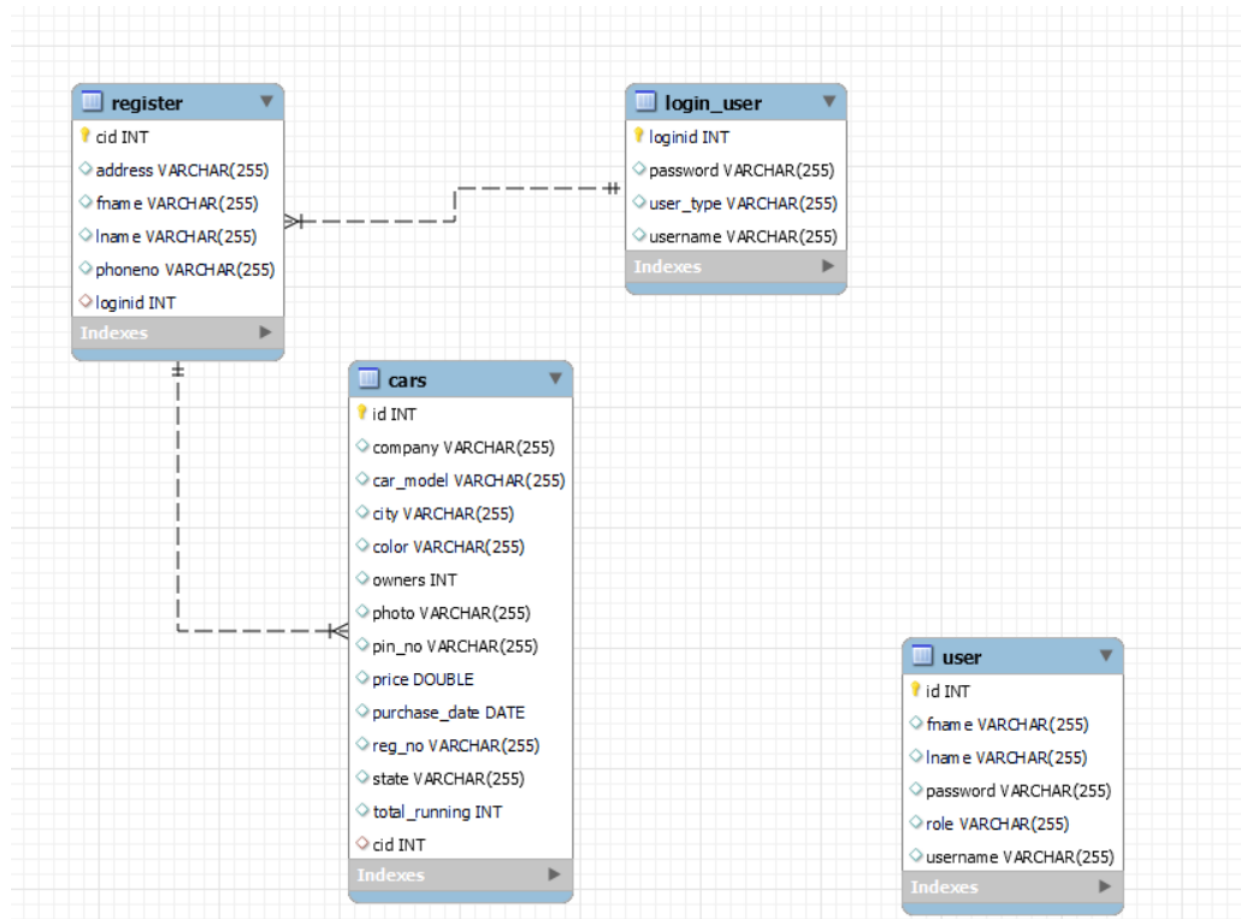
8.2 Use Case of Seller



8.3 Use Case of Buyer

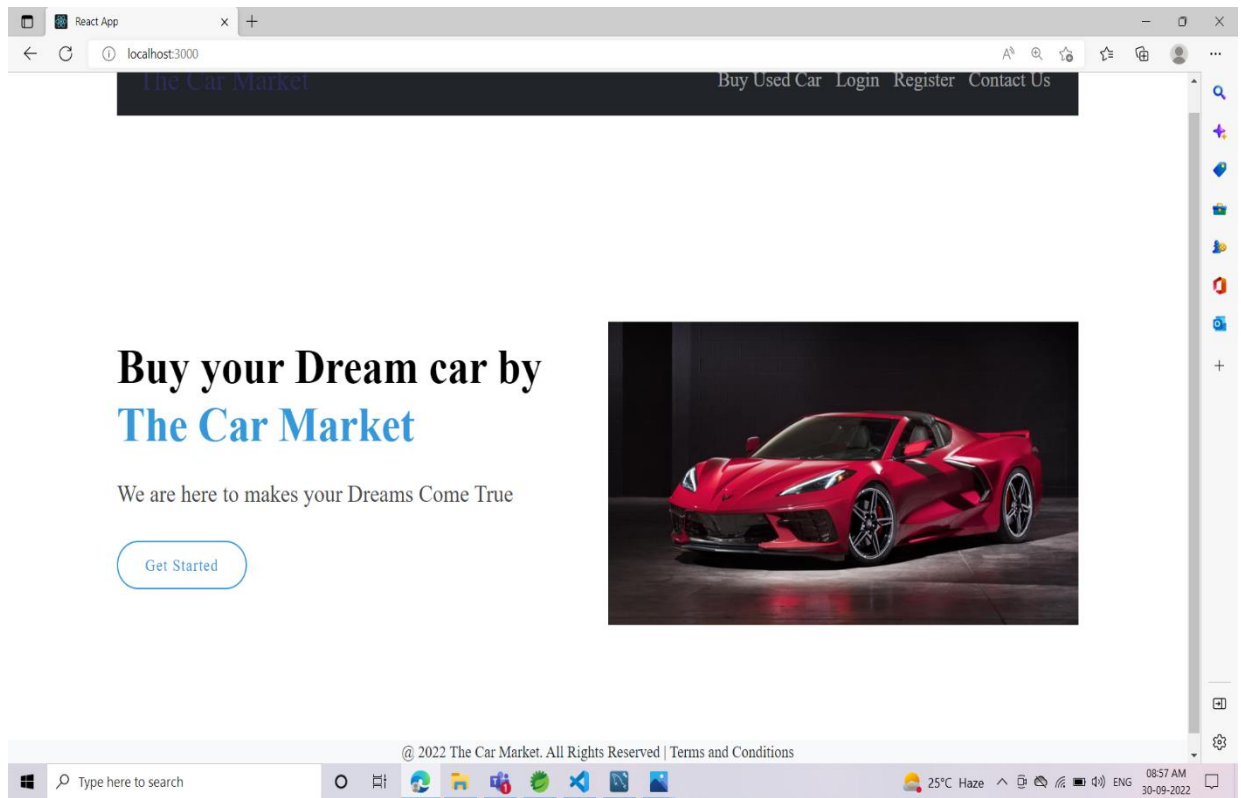


9. E-R Diagram



10. Project Related Screenshot

1. Main Page



2. Login Page

The screenshot shows a web browser window with a single tab titled 'React App'. The address bar displays 'localhost:3000/login'. The page features a dark header with the site name 'The Car Market' on the left and navigation links 'Buy Used Car', 'Login', 'Register', and 'Contact Us' on the right. The 'Login' link is underlined. The main content area has the heading 'Login Now, Hello' in a large, serif font. Below this, there are two input fields: 'Email address' containing 'pavan@gmail.com' and 'Password' with masked characters '.....'. A 'Login' button is positioned below the password field. At the bottom of the page, a light gray footer contains the text '@ 2022 The Car Market. All Rights Reserved | Terms and Conditions'. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 25°C, haze, and the date/time as 08:52 AM on 30-09-2022.

The Car Market

Buy Used Car Login Register Contact Us

Login Now, Hello

Email address

Password

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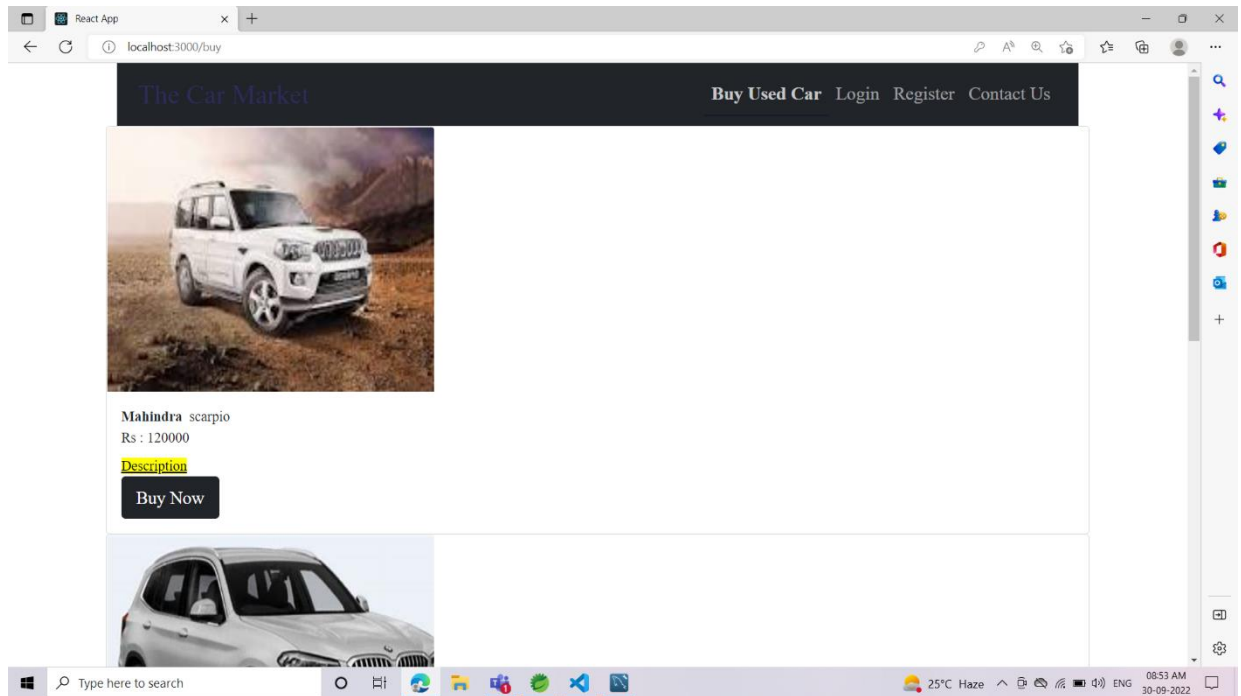
3. Register Page

The screenshot shows a web browser window with the URL `localhost:3000/register`. The page has a dark header with the text "The Car Market" and navigation links: "Buy Used Car", "Login", "Register", and "Contact Us". The main heading is "Register Now". The form includes fields for "First Name", "Last Name", "Phone Number" (with placeholder "mobile no."), "Email address" (with placeholder "name@example.com"), "Address", "Password", and a "You are" dropdown menu. A "Register" button is at the bottom of the form. Below the button, it says "Already registered [log in?](#)". The footer contains the text "@ 2022 The Car Market. All Rights Reserved | Terms and Conditions". The Windows taskbar at the bottom shows the time as 08:54 AM on 30-09-2022.

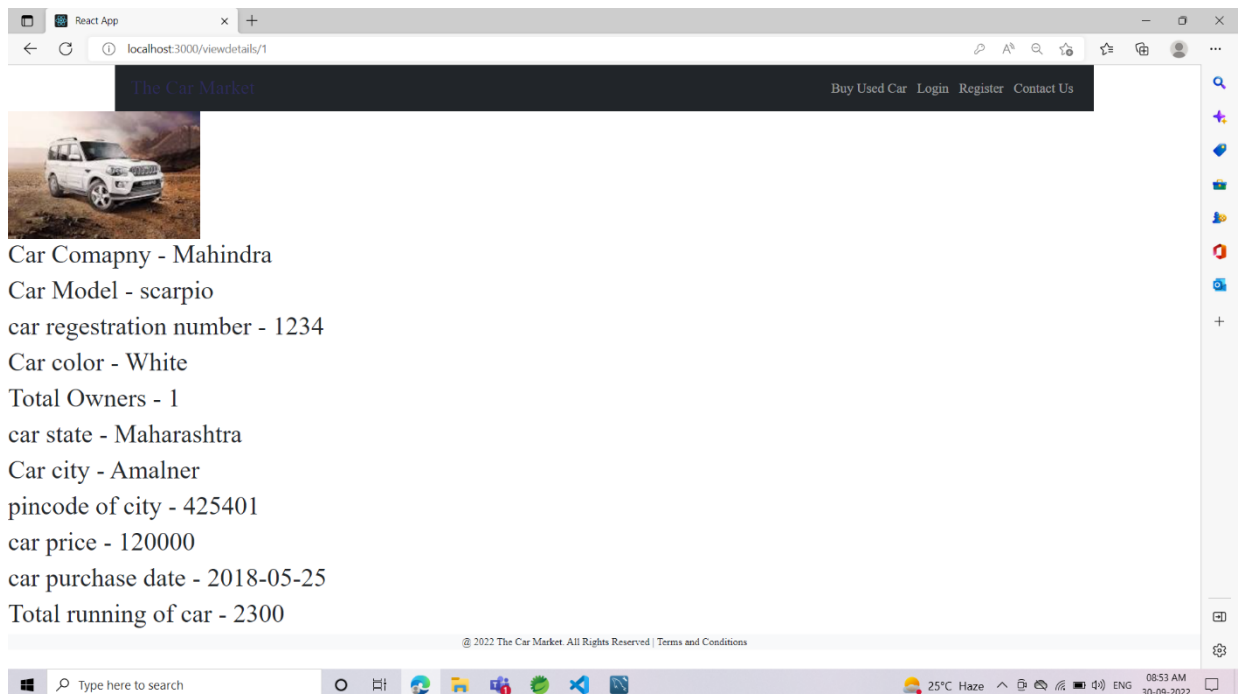
4. Selling page

The screenshot shows a web browser window with the URL `localhost:3000/sell`. The page has a dark header with the text "The Car Market" and navigation links: "Buy Used Car", "Sell Used Car", "Contact Us", and "Log Out". The main heading is "For Selling". The form is organized into a grid of fields: "Car Company" (text input), "Car Model" (text input), "Color" (dropdown menu), "Purchase Date" (calendar icon), "No of Owners" (text input), "KM Driven" (text input), "Registration No" (text input), "Price" (text input), "City" (text input), "State" (dropdown menu), and "Pin No" (text input). Below these fields is a "Photo" section with a "Choose File" button and a "No file chosen" text. At the bottom of the form are two buttons: "Submit form" and "Back to Home". The footer contains the text "@ 2022 The Car Market. All Rights Reserved | Terms and Conditions". The Windows taskbar at the bottom shows the time as 08:56 AM on 30-09-2022.

5. Buy Car Page



6. Car Details Page



7. Payment Page

The screenshot shows a web browser window with the URL `localhost:3000/payment`. The page header is dark blue with the text "The Car Market" on the left and "Buy Used Car Login Register Contact Us" on the right. The main content area contains a payment form with the following fields:

- Card Holder's Name:
- Card Number:
- First four digits:
- Second four digits:
- Third four digits:
- Fourth four digits:
- Card Expiry Date: January 2020
- Card CVV:

Below the form are two buttons: "Submit" (blue) and "Cancel" (red). At the bottom of the page, there is a footer that reads "@ 2022 The Car Market. All Rights Reserved | Terms and Conditions". The browser's taskbar at the bottom shows the Windows logo, a search bar, and several application icons. The system tray on the right indicates a temperature of 25°C, haze, and the time 08:55 AM on 30-09-2022.

8. Contact page

The screenshot shows a web browser window with the URL `localhost:3000/contactus`. The page header is dark blue with the text "The Car Market" on the left and "Buy Used Car Sell Used Car Contact Us Log Out" on the right. The main content area has the heading "Contact Us" in the center. Below the heading is a contact form with the following fields:

- Name:
- Phone Number:
- Email address:
- Message:

Below the form is a "Submit" button. At the bottom of the page, there is a footer that reads "@ 2022 The Car Market. All Rights Reserved | Terms and Conditions". The browser's taskbar at the bottom shows the Windows logo, a search bar, and several application icons. The system tray on the right indicates a temperature of 25°C, haze, and the time 08:56 AM on 30-09-2022.

11. Testing

The Report of the testing is given under here

Test Cases

Sr. No	Test Case Title	Description	Expected Outcome	Error Message	Result
1	Login Page	User should see login page when user will enter email and password.	After signing in user to be directed to home page	Invalid Login	Passed
2	Home page Displayed	Home page display for every successful log in.	Home Page Displayed	No Error	Passed
3	Categories Page	Users can see different categories of the products available.	Category to be selected.	No Error	Passed
4	My Orders Page	Here, user can see his all its order and can also cancel the order.	User can manage its order.	No Error	Passed
5	Contact Us	User can contact to the company.	User can write his problem to the company.	No Error	Passed
6	Checkout Page	User can review its product details.	After clicking on checkout user will place the order.	No Error	Passed
7	Log	Should not allow any control to be empty if not null	If validated Allow to go to home page	Validation Error	Passed
8	Cart	User should be able to see its product details.	All product added to the cart be seen.	No error	Passed
9	Log Out	User should be able to logout from the website	User will logout and will be redirected to the Sign In page.	No Error	Passed

12. Conclusion

Car sales Management system is web-based tool to reduce communication gap between the buyer and the seller. The main objective of this solution is to make buying and selling of cars easy and fast. In this web application buyer and seller have their login and both buyer and seller can buy or sell the cars through this application.

13. References:

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- “Optimizing Performance”, *ReactJS Docs* react.org/docs.
- “Web Workers API”, *MDN Docs* developer.mozilla.com.