CAR RENTAL WEBSITE

PROJECT SYNOPSIS
OF MAJOR PROJECT

Bachelors Of Technology
INFORMATION TECHNOLOGY

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INTRODUCTION:

This project is designed so as to be used by Car Rental Company specializing in renting cars to customers. It is an online system through which customers can view available cars, register, view profile and book car.

The “car rental System” has been developed to override the problem prevailing in the practicing manual system. This system is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data.

Every organization, whether big or small, has challenges to overcome and managing the information of customer, car, booking. Every car rental system has different car need, therefore we design exclusive management system that are adapted to your managerial requirement.

The car rental system project aims to create an efficiency and user friendly platform that allows customer to rent cars from different locations.

OBJECTIVES

The main objective if the project on car rent system is to manage the details of car, customer, payment ,booking , Insurance .It manages all the information about car . The purpose of project is to build an application program to reduce the manual work for managing the car customer booking and payment.

1. To make sure a user gets his desire car as early as possible; the car rental system will provide a faster response to complete the process through stripe payment.

2. To allow the customers to book space for a group in the case of weeding or corporate parties or meetings.

3. To monitor a vehicle activity and the overall business becomes easy and includes the least of paper work.

4. To provide customers with a convenient and easy to see platform for entering cars from different locations.

TECHNOLOGY

1. React.js: A JavaScript library for building user interfaces.
2. Node.js: A JavaScript runtime environment for server-side applications.
3. Express.js: A web framework for building APIs and server-side applications using Node.js.
4. MongoDB: A NoSQL database for storing and retrieving data.
5. Mongoose: A MongoDB object modeling tool for Node.js.
6. Redux: A state management library for managing the state of the application across components.
7. Bootstrap: A front-end framework for building responsive and mobile-first web applications.
8. CSS (Cascading Style Sheets): A styling language for describing the look and feel of the application.

These are some of the common technologies used in building a car rental React app with MongoDB. However, the specific technologies used may vary depending on the requirements of the project and the preferences of the development team.

METHODOLOGY

Login Page:

Basically, for any software security is a major concern. So, we have developed a secure application. Without being authenticated no user is allowed to view any other interfaces. For the login page, we have a User ID, Password, Profile. After being authenticated user is authorized to perform certain work according to his/her profile.

Profile Page:

Every user has his own profile. From here they can change their information like a correction in name, email id, address, etc. In our system, there are three profiles i.e. Admin, Customer, Car Provider.

View Available Cars:

It is a system design specially for large, premium, and small car rental businesses. The user can view Available cars and the user can book for that car. While viewing a car users can view the interior and exterior on our website with a price tag.

Booking Car:

If the customer is satisfied with viewing the car details. He/she can be booking a car for a particular date. The booking car interface is a real-time interface that helps the customer to get the best information.

Easily Get the Car on rent:

The Customer can easily get the car whenever they need to on the rent with the use of this system. They just need a browser or app with an active internet connection.

Give Feedback:

The customer will give feedback to the admin. Feedback is confidential information only the admin or owner or higher authorities can view the feedback.

Inquiry:

The customer needs to enquire about the availability of the car. Due to human interaction sometimes, the Customer care guy feels he is giving the same piece of

information again and again. So, using this interface customer can Enquire about any time, as many times as he wants.

Add Car:

The admin can add the car so that the user can see the available cars and book the car. Adding a car means it should be functional.

Manage Rent:

The admin can manage the rent so that the user can see the rent and book the car. The cost per mile should be different for different cars.

View Feedback:

The admin easily views the feedbacks and solves the query. This feedback should not visible to low-profile workers. Feedback is the backbone of any business if we want to increase our sales or business.

FACILITIES REQUIRED

The software and hardware requirements for a car rental React and MongoDB application depend on several factors such as the size of the application, the number of concurrent users, the complexity of the features, and the development and deployment environment. However, here are some general requirements:

Software Requirements:

- Operating System: Windows, macOS, or Linux
- Node.js: Version 14 or higher
- MongoDB: Version 4.0 or higher
- React.js: Version 17 or higher
- Text Editor: Any text editor or IDE of your choice like Visual Studio Code, Sublime Text, or Atom.
- Package Manager: NPM (Node Package Manager)

Hardware Requirements:

- Processor: 2.0 GHz dual-core processor or higher
- RAM: At least 4GB of RAM or higher
- Storage: At least 10GB of free hard disk space or higher
- Internet Connection: High-speed internet connection for smooth development and deployment.

Keep in mind that these requirements are just a general guideline and may vary based on the specifics of your project. It's important to assess your project's requirements and plan accordingly to ensure optimal performance and stability.

REFERENCES

1. https://nodejs.org/en/docs/
2. https://reactjs.org/docs/getting-started.html
3. https://docs.mongodb.com