Dynamic Car Sales Web Application

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***Introduction***

This project focuses on the development of a user-friendly car sales web application, designed to facilitate seamless transactions between users looking to buy or sell vehicles. The primary objective is to create an accessible platform that caters to individual sellers and smaller car dealerships, providing them with an alternative to establishing their own costly websites. By offering a university accessible web application, the aim is to attract a diverse user base and mitigate the need for sellers to invest in building dedicated websites.

The motivation behind this initiative stems from the recognition that certain car dealerships, particularly larger entities like Volkswagen, may engage in practises that result in inflated prices. These dealerships often refurbish second-hand trade-in cars to create an illusion of newness, potentially leading to buyers being overcharged. In contrast, individual sellers and smaller companies tend to offer vehicles at more reasonable prices, making the web application an attractive marketplace for cost-conscious buyers.

Acknowledging the financial constraints faced by many young drivers, who often cannot afford brand-new cars, this web application seeks to provide a secure and transparent platform for buying and selling vehicles. Platforms like Done Deal have become popular among young buyers, and this web app application aims to enhance this experience further. Sellers are required to create accounts, fostering a safer environment for transactions. Additionally, the inclusion of a review system enables users to assess the trustworthiness of sellers, thereby minimizing the risk of potential scams or misrepresented vehicles.

In summery, the car sales web application strives to revolutionise the way vehicles are bought and sold by prioritising user-friendliness, affordability, and security. By addressing the unique needs of both the sellers and buyers, this platform aims to create a more transparent and equitable marketplace for individuals and small businesses in the automotive industry.

***Primary Objectives***

The core objectives of this project are strategically aligned to enhance the overall car buying and selling process, fostering a secure, convenient, and enjoyable interface for users engaging in the buying and selling of cars.

1. ***Developing a User-Friendly Web Application:***

Designing and implementing an intuitive web application that prioritises user-friendliness. The aim is to create an accessible and enjoyable interface for users engaging in the buying and selling of cars.

1. ***Elevating the Car Buying and Selling Experience:***

Significantly improving the experience of buying and selling cars by offering a platform that ensures security, convenience, and reliability. This includes streamlining processes to make transactions smoother and more efficient.

1. ***Facilitating Transactions Between Buyers and Sellers:***

Creating an environment that facilitates seamless transactions between buyers and sellers. This involves implementing features and functionalities that simplify the negotiation, agreement, and finalisation of car sales

1. ***Implementing an Account System for User Reliability:***

Establishing a robust account system that enhances trust and reliability within the platform. Users will have the ability to assess the credibility of individuals they are engaging with, thus reducing the likelihood pf time wastage or potential scams.

***Scope Of The Work***

The scope of the work will go as follows:

* User registration and authentication
* Listings for cars, including descriptions, photos and prices.
* Search and filtering functionality.
* Messaging system for communication between buyers and sellers (chat bot)
* Payment processing for deposits a user would like to make on a vehicle
* User reviews and ratings
* Administrative panel for managing listings and users

***Technologies***

The technologies used for this application is JavaScript, html, css, Node.js, Next.js, SQL database (XAMPP)

***Timeline***

The plan is to begin development of the project week commencing 30/10/2023. The plan is to have a prototype of the project by 11/12/2023. The prototype will have basic functionality such as creating and account uploading images and prices of cars as well as allowing users to leave descriptions under the images.

As of week commencing 23/1/2024 the project shall begin full development and buy April 2024 should be completed.

***Success Criteria Semester 1***

The Project will be considered successful if:

* User registration and authentication are successfully working
* Listings for cars, including descriptions, photos and prices are all functioning
* Search and filtering functionality is operating
* Administrative panel for managing listings and users work as intended

***Success Criteria Semester 2***

The Project will be considered successful if:

* The messaging system for communication between buyers and sellers operates correctly.
* Payment processing can completed on the app for deposits
* User reviews and ratings can be assigned to a users account

***Benefits***

The project will provide many benefits to the market of buying and selling of cars such as:

* Improved accessibility for car buyers and sellers
* Increased market reach for car dealers
* Enhanced transparency and security

The last thing anybody wants when buying a car is to buy something that will be scrapped in less than six months’ time. This project will hopefully prevent or at least decrease the amount of scams in the car market. There is many stories online of people buying cars for their kids birthdays just to find out they have to pay more to fix the car they bought their child then they did for the car itself.

Car salesmen don’t want to be wasting their time trying to sell to users who are enquiring about a car with no intention of buying and simply wish to waste the users time. The review system will hopefully be able to stop these issues and allow for a cleaner and easier environment for users to sell their cars.

***Conclusion***

The car sales market is increasing constantly and not all home car salesmen are able to afford to pay for websites or to even maintain them therefore a web application such as this will allow those users a cheaper alternative to buying and selling cars. It will also allow users who are looking for cars a safer environment to buy potentially their first ever car. This web application will provide a safe and secure environment for buyers and sellers to interact. The user friendly interface will allow ease of access to buyers and sellers that sites such as Done Deal or big companies such as Volkswagen cannot provide.

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