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CP470: Android Programming

Dr. Abdul-Rahman Mawlood-Yunis

Project Proposal

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Group 10

Hazzar, Mahdi

Hemsley, Erin

Malik, Moman

Meque, Tonny

Mian, Sameer

Problem Statement
Obtaining vehicle information is often difficult, time consuming, inaccessible and potentially expensive. Currently, decoding the VIN online of a vehicle requires users to type in long strings and there is no efficient way to export the retrieved information.

Objectives
The primary objective of the VIN lookup app is to provide users with detailed and accurate information about vehicles based on their unique VIN. This information includes critical data such as the vehicle's make, model, year, and various specifications. The aim is to aid users in making informed decisions when buying, selling, or maintaining vehicles using a simple and user-friendly UI that will quickly output the necessary information to the user.

Stakeholders

1. Car dealers and salespersons: Car dealers and salespersons can retrieve details of their current inventory, information about cars they would like to buy, and send information to customers. It will be particularly useful in time sensitive situations such as trade-ins during a sale.
2. **Enthusiasts:** For those who have a passion for cars, they can quickly scan a car's VIN and get information about it.
3. **Private buyers:** The average consumer tends to steer away from buying used cars from places like Facebook Marketplace and Kijiji because of the lack of reliable information about the car. This tool would offer details that are necessary when making a purchase.

Deliverables

- **VIN scanning:** A camera-based scanning feature to accurately capture the VIN from the windshield or door frame of the vehicle. The user will have the option to edit the VIN number in case the scanning is incorrect.
- **Car information retrieval:** Using a reliable, preferably free, API to retrieve comprehensive car details based on the VIN number. Information should include the car's make, model, model, year, trim, and any additional accessible details about the car. History may be included for free or offered at a premium.
- **User-friendly interface:** A clean and user-friendly interface to present the car information to the user in an understandable format.
- Implementation of all the minimum project requirements listed in the syllabus

Stretch Goals:

1. **CSV export:** A feature allowing users to export the retrieved car information to a CSV file for further use or sharing.
2. **Inventory management:** Allow users to store a list of their cars, with pictures and information.
3. **Advertisement creation and third-party integration:** Using the details and pictures of a car, create a custom advertisement including a caption
4. **Account management:** As well as account capabilities, including registration, password recovery, sign-in/sign-out functionalities to save user data.