**Project Name: TeleCar**

**Students:**

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**Introduction**

In today's fast-paced digital age, there is a demand for efficient and convenient communication among car owners. Transportation is a part of daily life and a source of ongoing challenges that do not always have solutions.

We chose to develop an application that provides a social platform for car owners. The app is based on identifying car owners using direct and indirect communication (through the system) for various needs. The main goal is to create direct connections between car owners, bringing many capabilities to the car world that do not currently exist. The application will enable the following features:

1. **Direct Contact via Chat** - The search will be performed using the car number, which will serve as the user's identifier.
2. **Parking And Vehicle Services Solutions** – Locate parking spots and vehicle services such as gas stations garages and car wash using various APIs.
3. **Extra features** – Offer to the client plenty of features as forum, market place, extra information and more.

**Objectives**

The objective of the app is to provide a social platform that, for the first time, allows contact based on car numbers. The app will enable real-time collaboration among users. Additionally, the app will offer an efficient platform for buying and selling cars and allow users to send emergency messages to get help.

**Goals**

1. **Allowing the user use location features**: The system will be able to offer available location features such as parking search or other services.
2. **Developing an Environment For Buying And Selling Cars**: The system will provide users the option to buy and sell cars based on a their details with all the brands available.
3. **Developing a User-Friendly Interface**: A clear and convenient interface allowing new users without a technological background to operate the application independently from the first use.

**Metrics**

To evaluate the app's success, we will use several metrics to provide information about usage and user satisfaction:

1. **Increase in App Downloads**: The number of new users will be on the rise. A high number of downloads will indicate the app's spread and recognition of its benefits (exponential growth of downloads over time).
2. **High Usage Frequency by Existing Users**: The frequency of entries and repeated use by existing users will indicate the app's quality (the usage frequency will be calculated based on the average entries of all users and will be constantly increasing).
3. **User Satisfaction Reviews**: Ratings and reviews will be received from system users (the average rating will be above 6/10).

**Initial System Requirements Document**

The system provides services for car owners intended to improve the driving experience and ease finding parking, contacting car owners, and buying and selling vehicles.

**Functional Requirements**

* The user will perform an initial registration to the system (personal details and car details).
* The login process when entering the app – the user will log into the app and identify themselves by car number and password.
* The user can search for a car number and open a direct chat with the car owner.
* The user can get information about cars for sale and advertise their own car.
* Forum where a client can post and comments on different posts.

**Non-Functional Requirements**

**Performance Requirements**

* The system will provide a response time of less than 2 seconds for any user request to ensure a smooth user experience and prevent inconvenience.

**Operational Requirements**

* On Android mobile devices, access will be possible from Android version 7.0 onwards.
* On Safari, Chrome, and Firefox browsers updated from 2018 onwards.
* The system will support Hebrew and English languages.
* The system will require location usage.

**Security Requirements**

* The system will provide dedicated mechanisms for user identity verification and confidentiality of information.

**Installation Requirements**

* The system will function identically in standard browsers.

**Design Requirements**

* A clear and convenient interface allowing new users without a technological background to operate the application independently from the first use. Minimalistic design to prevent user confusion.

**Tools and Resources Required for the Project**

**Hardware:**

* **Processor:** i7 CPU
* **Processor Speed:** 1.8 GHz
* **RAM:** 16 GB
* **Hard Disk:** SSD

**Software:**

* **Languages:** Dart, JavaScript
* **Development Environments:** Android Studio, VS Code

**Competitor Review**

**CarChat**

**Overview:** CarChat is an app that enables communication between drivers using car numbers. It offers real-time chat, allowing users to communicate based on their car numbers.

**Advantages:**

* User-friendly interface making it easy for drivers to connect and communicate.
* Prioritizes user privacy with advanced encryption techniques ensuring secure communication.
* Integrates with popular navigation systems, allowing real-time road communication without distractions.

**Disadvantages:**

* Limited availability: CarChat is currently available in selected areas, which may limit its adoption among a wider audience.
* Lacks additional features and functionalities.

**AutoConnect**

**Overview:** AutoConnect is a dynamic platform designed to connect drivers based on their car numbers. It offers various features aimed at enhancing communication and collaboration among users.

**Advantages:**

* Provides multiple communication channels, including text chat, voice chat, and even video calls, allowing users to choose the most suitable option based on their preferences.
* Broad user base spanning multiple regions, enhancing the chances of finding and connecting with other drivers.
* Seamlessly integrates with smart car systems, allowing users to access platform features directly from their car's dashboard.

**Disadvantages:**

* Some users may find AutoConnect's interface somewhat complex, especially those less tech-savvy.
* May experience occasional connectivity issues in areas with poor network coverage.

**CarComm**

**Overview:** CarComm is a simple platform focused on facilitating communication between drivers based on their car numbers. It aims to provide a straightforward yet effective solution for connecting drivers on the road.

**Advantages:**

* Features a minimalist interface, making it easy for users to navigate and initiate conversations with other drivers.
* Quick and hassle-free setup, allowing users to start communicating with other drivers almost immediately.
* Designed to consume minimal system resources, ensuring smooth performance even on devices with limited processing power.

**Disadvantages:**

* While suitable for basic communication needs, CarComm lacks advanced features such as multimedia messages or voice calls.
* Due to its small user base, users may find fewer opportunities for meaningful interactions compared to other platforms.