**מסמך זה באנגלית עקב ההערה בהגשה הקודמת שעדיף באנגלית.**

**גיט מצורף עקב ההערה** [**https://github.com/galogdan**](https://github.com/galogdan)

**סטודנטים:**

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**Functional Requirements:**

1. User Authentication:
   * Users can register an account using their email and car ID.
   * Users can log in to their account using their credentials.
2. Car ID Based Chat:
   * Users can enter their car ID to join the chat corresponding to their car.
   * Users can send text messages in the chat room.
   * Users can receive real-time updates for new messages.
3. Car Selling/Buying:
   * Users can list their cars for sale, providing details such as make, model, year, price, and condition.
   * Users can search for cars listed for sale based on various criteria (make, model, price range, etc.).
   * Users can contact sellers through the application for inquiries or purchase negotiations.
4. Forum Options:
   * Users can post in the forum
   * Users can filter for posts with keywords and category.
   * Users can comment on other posts in the app.
5. Profile Tab:
   * Users can view their profile information, including name, contact details, and car details.
   * Users can upload a profile picture.

**Non-Functional Requirements**

Performance:

1. Real-Time Communication:
   * Chat messages should be delivered with minimal latency (< 1 second).
   * The system should be capable of handling concurrent chat sessions efficiently.
2. Response Time:
   * The application should respond to user interactions within 2 seconds on average.
   * The maximum acceptable response time for any action is 5 seconds.

Security:

1. Authentication and Authorization:
   * User authentication should be secure, employing industry-standard encryption techniques.
   * Access to certain features (e.g., selling cars, posting carpool offers) should require user authorization.
2. Data Protection:
   * User data should be stored securely, adhering to best practices for data protection.
   * Sensitive data transmission should be encrypted using HTTPS.

Reliability:

1. Availability:
   * The system should aim for at least 99% availability, allowing for scheduled maintenance downtime.
2. Backup and Recovery:
   * Regular backups of the database should be performed to prevent data loss.
   * Procedures for data recovery in case of system failures should be in place.

Usability:

1. User Interface:
   * The user interface should be intuitive and user-friendly, facilitating easy navigation.
   * Adequate feedback should be provided to users for their actions (e.g., successful car listing, error messages).
2. Compatibility:
   * The application should be compatible with popular mobile platforms (iOS, Android).
   * Responsive design principles should be followed to ensure usability across different screen sizes.