Requirements of Bus Station Application

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1. Functional Requirements:

- The application includes public buses.
- The application detects the current location of the user after their permission.
- The application takes the user's desired destination.
- The application notifies the passengers details of the nearest bus as well as its station upon their current location.
- The application provides passengers assistance to reach help on time.
- Passengers can view live tracking of the nearby buses on a map.
- Passengers can enter a location as a starting point.
- Passengers can view the geographical locations of the stations in selected area.
- Passengers can view an image of nearest bus to them.
- Passengers can search for a required destination by a name.
- The admin can add stations and vehicles.
- The admin can delete stations and vehicles.
- The admin can update stations and vehicles.

2. Non-Functional Requirements:

Reliability

- *Availability*

    - The system will be available only in Alexandria, Egypt.

    - The system covers stations from Miami to Bahary.

    - The system will be available 24/7.

- *Flexibility*

    - The admin can easily update the database.

    - The admin will be able to add more stations and buses in the database.

- *Performance*

    - A request by the user, after the user provides the necessary data, will be processed within 20 seconds which is an acceptable waiting time compared to other applications with the same scope in the market.

Security

- *Availability*

    - The system will be protected to ensure its availability at any time and address security concerns regarding denial-of-service attacks.

- *Data integrity*

    - The system will be secure as the admin is the only person allowed to modify the database.

- *Data confidentiality*

    - The admin is the only person allowed to access the data.