

1. Nonfunctional Requirements

1.1 Performance Requirements

- The application must acknowledge all user queries within 20 seconds.
- Querying of the Mapbox API must take less than 10 seconds to respond.
- The application must be able to support at – least 40 queries per minute.
- In case of failure of app, the platform must be available to the users again within 2 hours.
- The My Trails Screen must be updated within 5 minutes of completing or ending a trail.
- After a system reboot, the application must fully restore functionality within 2 minutes.

1.2 Safety Requirements

- The application utilizes the user's location to denote their current location on the map. No location information is stored in the application's system for safety purposes.
- The user's physical activity is accessed to display a record of the step count but is never stored.

1.3 Security Requirements

- The application shall not share the user's application usage history with third-party companies.
- The user's account information will not be shared with any third-party companies.

1.4 Software Quality Attributes

- The application will provide accurate and correct results for all user queries.
- The user will be provided with up-to-date trail information and correct distances.
- The application must be available to users for at – least 95% of the day.
- The mean time between system failures must be at – least one month.
- The buttons for the major features of the application on the home page will be made into icons for better usability and UX.

- The user must be able to learn how to use the various features of the application within the first 5 minutes of seeing the interface.
- The user should be able to reach their profile within 3 clicks.
- The mobile application must be compatible with all devices that are currently running Android 11.
- The Mapbox API must be accessible from within the application.