Q1.5 App Design Challenge: BU Emergency Response

Main Goal:

The app will help BU students navigate the Boston area safely by providing real-time safety information about different locations. It will leverage data from various sensors on Android phones and crowdsource insights from the community.

Features:

Safety Heatmap:

Uses crowdsourced data, including reports of incidents like crime, traffic hazards, or unsafe conditions, to generate a real-time safety heatmap of the city.

Users can view areas color-coded by safety levels, updated continuously based on recent reports, police data, and historical trends.

Users can interact with the map by flagging unsafe areas, which will increase the severity levels at those locations. Flagging an area is not anonymous; users must verify their identity to enable this feature, preventing spam and misuse.

Users can also plan routes in advance to avoid high-alert areas and send the planned route to navigation apps.

Location Sharing & Route Monitoring:

Users can share their real-time location with their emergency contacts when walking alone at night or in sparsely populated areas.

The app can monitor their route and send alerts if they deviate significantly, if there's a loss of signal, or if they overstay in a particular area.

If the app detects the user entering a known high-risk area, it sends a notification and suggests safer routes to help them move away quickly.

Accident Detection:

A built-in accident detection feature uses sensors like the accelerometer. If the app detects a sudden fall or sharp change in motion, it can automatically trigger a panic alert and send an SMS to the user's emergency contacts.

Offline Map:

Users can download offline maps with the latest updates to avoid losing signal when walking in less populated areas.