CSCI 6907 Project Proposal

ARE YOU AROUND

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Project Abstract

"Are You Around" application is developed for the Google Android Phone. The prime objective of the app is to notify the user about all their friends who are around. The user gets a notification if one of his/her friend is around them within a 1 mile radius. This will help the user catch up with their friends if they are in the same place.

Strategy

The project is developed in Java Programming Language using the Eclipse Integrated Development Environment. The Android Software Development Kit (SDK) will be used which has the Android Emulator and the Android Development Tools (ADT).

The Application uses the current location of every user to determine if they are around each other. There is a database where the current location of every user is stored in terms of longitude and latitude. The location of a user is obtained by the android.location API and is stored in the database. The app refreshes the locations in the database every 15min. Then this information is fetched again. A mathematical calculation is carried out to determine which of the friend is around the user within 1 mile of radius. If any friend is found, a notification is generated in the app which informs the user about his friends availability around him.

The app will include Android.Location API which is used to find the location of all the users using this app. Android.Database API will provide a database to store and retrieve all the user's current location. Android.APP will be used for the user interface of this app.
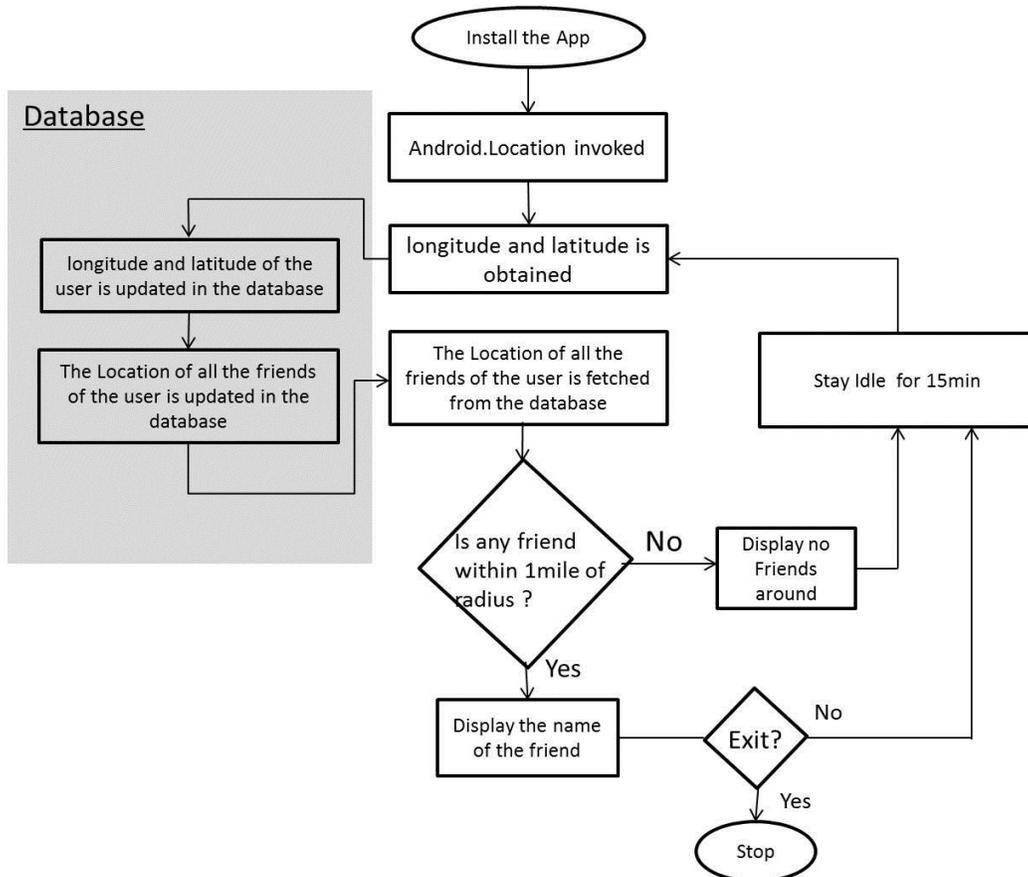
Unknowns & Problems

I have not yet looked at how all the friends initially will be added into the database. For now I would say they need to log in to the website to manage that. Additions to the app like call the friend option, locating in the map and others have yet to be looked at.

Implementation Plan

- Understand the android.location API and implementing it on the emulator.
- Learning about GPS Locations and determining how to calculate radius in miles and in the form of longitude and latitude.
- Creating a database in xml or excel and its queries to update and get data from it.
- Build an UI for the application

- Add other features like calling the friend, locating in map, distance calculation and others if time permits.

Will test individual projects and then integrate to get the final project. The flow chart of the application is given below.

The rough sketch of the UI for the application: