CSE 535 Project Proposal

1. Project Members
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2. Project Idea

We are planning to develop an application for a social cause. The application is named Volunteer Finder. The application is aimed to be instrumental for organizations and individuals who look out for volunteers to organize their events. Each user of the application will have their own profile. At the time of the creation of profile, the user enters his address and the applications learns about the home location of the user. As and when events that require volunteers are posted, users are notified accordingly so that they can choose to volunteer for a particular event. This helps event planners organize their events accordingly.

The project is relevant to the materials that we discuss in class as it performs location based prediction for event organizers to plan their events that are guaranteed to maximize the success of their events. It also informs users of events that they could possibly attend as it is close to their location. The application automatically identifies ‘hot-zones’ for every type of social event so that maximum participation of people is ensured.

1. Plan to use of external sensors:

For the scope of this project, we do not use any external sensor. The only sensor that we use is GPS as it is instrumental in identifying the location of the user.

1. Type of platform used:

The application should work in android devices with API Level 19+

1. Development Setup:
   1. IDE: Android Studio 2.2.3
   2. Testing: Android Emulator and Personal Phones of the Team
2. Specification of Context Aware Behaviour:
   1. We use the GPS to get the real-time location of the user. We plan to update the feed of the user based on the user’s current location and show events that are happening around him along with an approximate distance from the user.
   2. If a new event is created near the user or in his home location, a push notification is immediately sent to the user. This enables the user to have a quick look at the event as soon as it is created.
   3. Each event has an associated volunteer counter which is the maximum number of volunteers that the event requires. The event organizer is given a push notification as soon as this is reached and the event is no longer available for the volunteers to select. However, volunteers have the option of following the event in case a volunteer opts-out of the event. In this case, volunteers following the event get immediately notified so that they can take that slot up

1. Major Tasks for the project:
   1. Database Schema Design
   2. Setup the web servers so that the app can be updated on the go
   3. Design UI and the number of activities
   4. Create Database encryption to protect login and sensitive data
   5. Profile Acquisition for volunteers: creating profile, username & pwd
   6. Create profile using Facebook/Twitter/LinkedIn.
   7. Generate a volunteer ID and event organizer ID for each user of the application.
   8. Event data acquisition for every event.
   9. Cancellation/Modification of event by event organizers: This ensures that all volunteers associated with the event are notified via a push notification. Database reflects the changes.
   10. Identify user location based activity to determine which events to suggest
   11. Matching each user to an event using his or her unique ID (Volunteer or Event Organizer depending on the role).
   12. Design the feed updates for every user which is unique
   13. Attach a counter which signifies the number of volunteers each event has at any point of time.
   14. “Grey-out” events if volunteer counter equals the required number of volunteers . All volunteers can follow the event that has been greyed out. If someone opts out, then the volunteers who follow the event are informed via push notification. This ensures that volunteers who are genuinely interested in the event get to participate in it.
   15. Option to make an event reminder in the google calendar so that user is reminded 2 hours before each event.
   16. Ensure that an user does not enrol for two different events that are occurring at the same time
   17. Ratings for each event from the volunteer feedback which will help in suggesting events for the volunteer and for suggesting ideal locations for each type of social activity.
   18. Maintain history of each volunteer which will be visible to event organizers and themselves only.
   19. Create an attendance page for each of the event if the event organizer wants it. Points are lost if the user signs up and does not attend.
   20. Extra-Curricular resume builder feature which generates a series of bullet points which the volunteer can put in his or her resume. This will also be updated to his LinkedIn if the user wishes so.
   21. Debug Application.
2. Task-Member Assignment