Individual Project: Pedometer

Group Member:
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Objectives:

- **Main Objective is to develop a location-aware and socially-connected "Pedometer" Android application.**
- Authenticates users via their Facebook credentials.
- Uses accelerometer to count number of steps.
- For every 100 steps taken, it records an average location.
- If the user walks for less than 100 steps in 3 hours, it notifies the user in his/her wake time.
- Publishes number of steps in a day to the user's handle on dweet.io.
- Displays a map showing all recorded locations so far in the day and number of steps in the day.
- Displays a timeline of user's number of steps in the past.
- Compares user's steps with their friends' via their dweet.io handles.

Platform: Android 3.0 and above.

Libraries:

1. **Google Maps API:** http://developer.android.com/google/play-services/maps.html
2. **Dweet.io API:** https://dweet.io/
3. **Facebook API:** https://developers.facebook.com/docs/android/
4. **Sensor:** http://developer.android.com/reference/android/hardware/Sensor.html

Milestones:
Oct 7: Get familiar with Sensors, Facebook API, Dweet.io API and Google Maps API.
Oct 15: High-level design of the system.
Oct 23: Implementation of authentication module (Facebook connectivity), accelerometer data collection module, Dweet.io connectivity module, Google maps connectivity module and other low-level modules.
Oct 31: Designing the algorithms to figure out the number of steps, distance & direction of movement and finding average location from the accelerometer data.
Nov 8: Implementation of the above algorithms.
Nov 16: Integrating the different modules and performing integration testing.
Nov 23: Alpha and Beta Testing. Project report.