Assignment 3 (Introduction to Mobile Computing)

Given out: April 26th, 2015, Assignment Due: May 11th, 11:59 PM

This assignment involves building a social application that allow you to find friends around you in a 1 km radius. Here are some of the features of the application that I want you to build.

1. When the application starts it should register with a username and a password, and a person’s name. Every time the application restarts, the user has to authenticate with the server making sure that the username and password are correct. For the present application, you can send the password in plaintext.

2. After authenticating, the application should open up a google map interface which shows the user’s present location and the location of other people who have registered with the service and are within one kilometer of the user. Clicking on the pushpin you should display the name of the person. The way you can implement it is the following. When the application boots up, it queries a php script on the backend and finds the location of the people registered for the service within a radius. You can use the php script that we discussed in class, as a reference.

3. [Extra Credit: 4 points] This is for extra credit and you should do this only if you have the time. I want you to build a messaging service on top of the friend finding application. On clicking the pushpin (representing the person around you) in addition to displaying the name of the person and you should have the option of writing a message and clicking send. The message should be sent to the server using the relaying php script and stored in a database. When the receiver polls the php script it should get all the message addressed to him. Note that I do not want you to implement any notification though that might be a better way of implementing this (polling is sufficient for this application). The receiver should be able to see all the messages addressed to him with the name of the person who sent the message. The choice of the UI element is upto your group.

4. What you need: you need an account on my server. Groups that have already send me a username request, the account would be created for you this week (I will send a personal email to the groups). The server is called mpss.csce.uark.edu. Your php scripts will reside in a public_html which I will create with the proper permissions. You will have access to the sql server on mpss. I have created a database called mobilecomputingassgn3 and you should create your tables in that database. The username for mysql is crowdsouce and the password is <username>123~. Since you will be sharing the database, please do not delete anyone else’s table.

5. What you need to submit: Like last time, you will upload the code on the google site
and create a video and upload a link to the video.