Project Report 2

Team Members:
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Project Progress

Initial setup:

The initial setup for using the android platform has been done on both Windows and Linux machines. We are using Eclipse IDE along with Android Development Tool (ADT) plugin. Android applications can be easily developed and debugged using ADT. We tested our initial setup by running a simple "Hello, World" program.

Application Signing:

All the Android applications needs to be digitally signed else they won't be installed on emulator or mobile device. There were some problems related to this since some of the required environment variables were not set. Those problems are fixed now.

Android Maps API key is required to access and embed the Google Maps in our Android application. This signing has been done. A single Maps API key is valid for all the applications of ours.

Implementation Details:

We are able to create the Google map and show it on the screen. Also the user's current location is shown on the map. Some of the important classes that are accessed are as follows:

android.view: This class exposes the UI classes which are required to handle the screen layout of the map and the interaction that the user does with it.

com.google.android.maps: Our application displays and controls the Google map using this package. We have used MapView class - to display the map on the screen, MapController utility class - to handle the zooming and panning of the maps and GeoPoint which represents the longitude and latitude of the user.

android.location: This is used to access the location services which are used to identify the current location of the user. We have used the Location class which represents the location of the user sensed at a particular time. We use the getLatitude( ) and getLongitude( ) API's to obtain the latitude and longitude of the users current location. The access to system location services is obtained through LocationManager class.
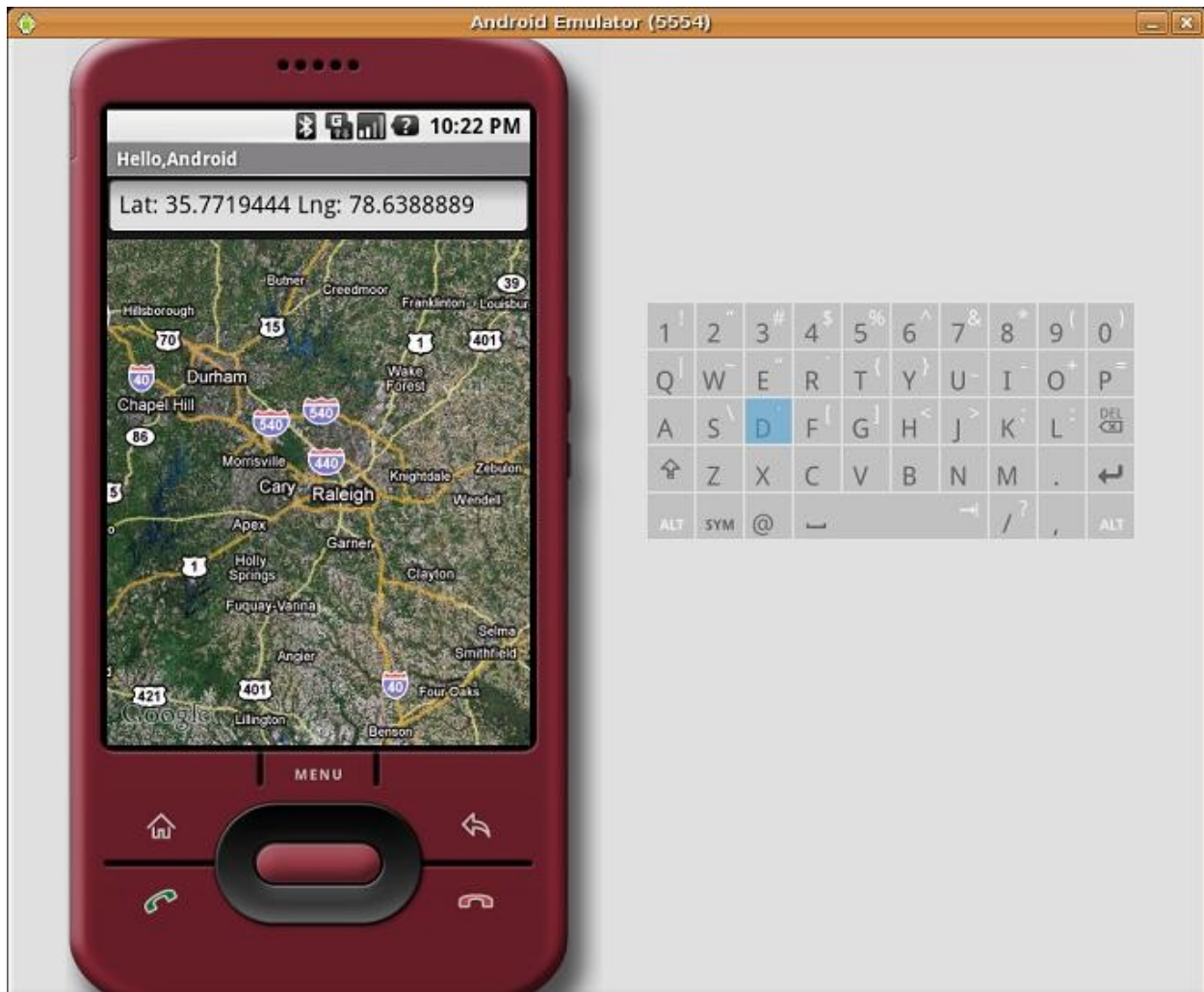
Future Implementation:

We need to implement the GUI consisting of buttons/text boxes which are required for selecting the locations and specifying an ordering among them. An algorithm has to be developed which takes these locations as inputs and find the optimal route between them. Then the routes between these are shown on the Google map and with the help of location API's it can be used as GPS.

Schedule

Activity	Date	Team member	Status
Project Proposal	03-16-2009	Both	Done
Website	03-16-2009	Jeevan	Done
Initial Setup (Linux)	03-24-2009	Raghu	Done
Initial Setup (Windows)	03-25-2009	Jeevan	Done
Literature survey of Android API's	04-12-2009	Both	Partial
Basic Implementation (View/Maps/Location)	04-01-2009	Both	Done
Implementation of required GUI	04-05-2009	Raghu	Pending
Implementation of the algorithm	04-05-2009	Jeevan	Pending
Integration of GUI and algorithm	04-06-2009	Raghu	Pending
Setup on the G1 Phone	04-06-2009	Jeevan	Pending
Unit Testing & Bug fixing	04-08-2009	Both	Pending
System Testing & Bug fixing	04-12-2009	Both	Pending

Snapshots:

The snapshot of the emulator shows our current location on Google maps.

References:

http://code.google.com/android/maps-api-signup.html

http://www.linuxdevices.com/articles/AT9900056470.htm

http://developer.android.com/reference/packages.html