CSCI 4237 Project Proposal

Geo Tweeples

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Project Abstract

My application lets a person know what is happening around him, according to the tweets pulled. Tweets from people (Tweeples) will be filtered within a specfic geographic location determined according to the users's current location. Users will also be able to further filter the tweets for a specific keyword in it.

Strategy

Geo Tweeples will be developed for Android's Gingerbread platform, and I will use Android Simulator for demonstration and testing purposes.

My application will have Google Maps and Tweets as the two major sections. Google Map's section will indicate the current location of the user, by dropping a pin on the user's location as soon as the application is launched. By selecting the Tweet's section it will list all real time Tweets within that geographical area. The serach tab under Tweets section will allow users to specify keywords to filter the listed Tweets.

Unknowns & Problems

My applictaion will use API provided by Twitter. The major problem is that Twitter provides only limited accesss to its API and I'll have to make a lot of customizations to tailor the API according to my application's requirements. I have nill experience in android development and I have never used APIs so integration of Google Map, identifying user's current location and then filtering the Tweets will be a major challenge.

I want to use two filters on the same data set, that is the user will get location based filtered tweets, which user can further filter by keyword search. This will be another challenge.

Implementation Plan

I'll use following APIs to implement my application.

1. Google Map's API: This would help me to integrate Google map into my system.
    a. Geocoding API: which is a part of Google Map's API, to grab current location of the user and convert addresses/locations into geographic coordinates.

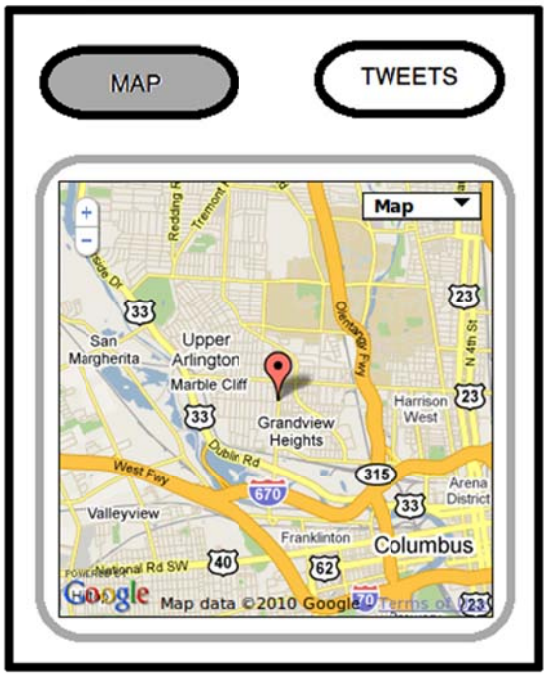
2. Streaming API: provided by Twitter to stream filtered data.

    a. statuses/filter: Is a concept in Streaming API to return Tweeples that match one or more filter predicates, using POST method.

    b. locations: Is another concept under Streaming API, to track Tweets only in the specified location. The location is specified in geographic coordinates, I will use Geocoding API to convert it into an address/location.

User Interface

Screen 1:



Screen 2:


MAP
TWEETS
Enter Keyword
Search Tweeples!
rentzsch @adamengst it's your own fault for declaring your house a sovereign nation. I warned you "Engstistan" would bring nothing but tears half a minute ago from twitterrific
gruber HandBrake is about 25 times faster on MacBook Pro than PowerBook. Edge case, to be sure, but amazing nonetheless. less than a minute ago from twitterrific
shauninman like a guy wearing make-up since "they" broke up 1 minute ago from web
mashable Garmin Teams Up with Google and MapQuest for Simple Data Transfers (http://tinyurl.com/2qgtf7) 1 minute ago from web
shauninman part of the charm of a cover is the unexpected incongruities that come from one artist performing another's song. 1 minute ago from web