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Get a LIFE

Vision

Our product is designed to assist those who have trouble finding things to do on the weekend. This product would be good for users who may be new to a city and may not know things to do or places to visit. In addition, this could be good for someone who feels like they have seen and done everything there is to do in a city and our application could suggest something new they may not have tried.

The objective of our application is as follows:

- Given time and experience, learn the preferences of a user so that our application can more successfully suggest events to attend and places to visit to a user.
- Simple, clean user interface, where the customer can reach an event interesting to them with as few of clicks as possible.
    - User is able to know what each feature does just from opening up the app.
    - Integration with Google Maps, Eventful, and social networks like Facebook.

This project is compelling because the problem solved by this application is a problem that many people have experience with. In addition, there are some interesting areas in computer science that apply to this particular application. In particular, we could apply machine learning algorithms, like nearest neighbor algorithms, to our application, allowing us to give suggestion that fit our users better.

Software Architecture

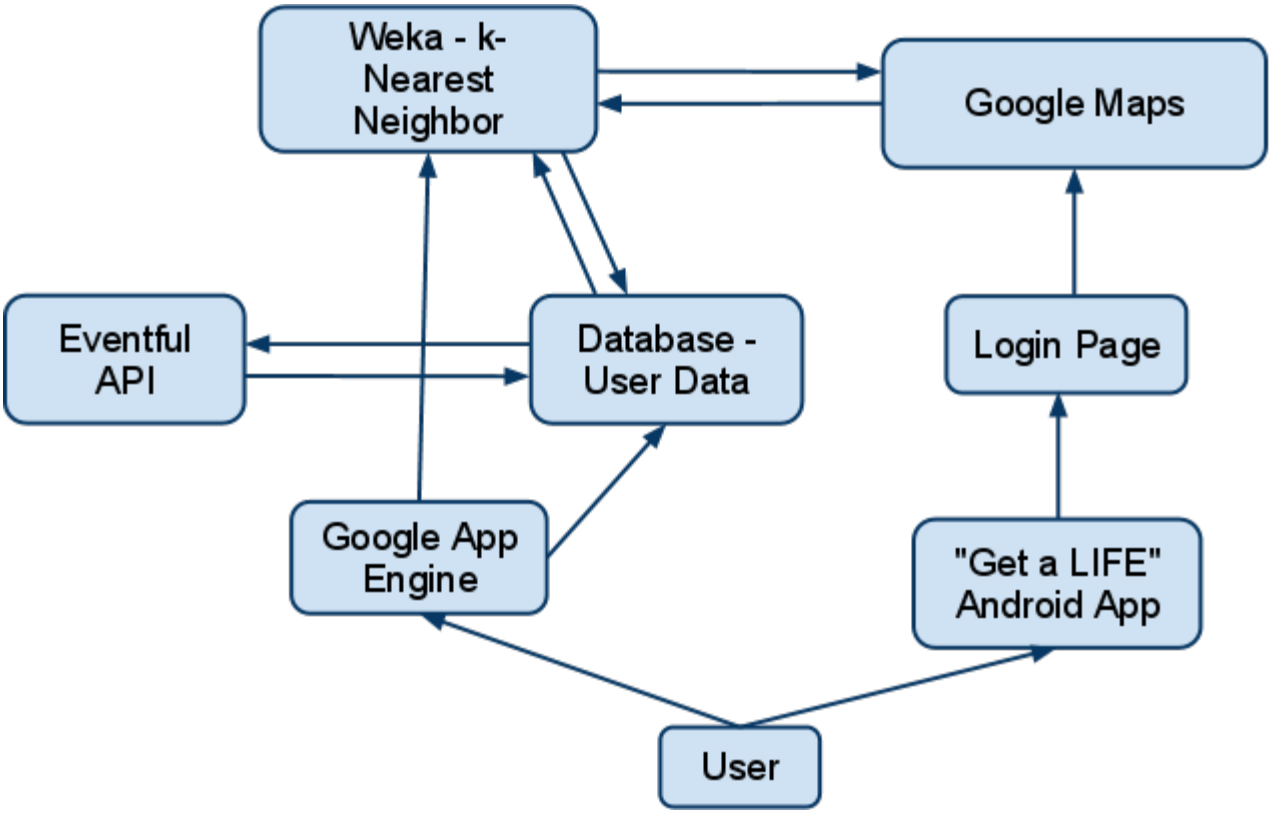
On a high level our application will have several components:

- A front-end mobile user interface on the Android phone.
- A back-end that will handle all of the user data. In addition, this back-end would handle any integration with social networks like Facebook. The server back-end will be in the form of a cloud service.

The key connection between the front-end of our application and the back-end is when the user requests suggestions for events. Once this is done, the back-end will run the nearest neighbor algorithm on the users in the database, using features like the previous events attended and preferences. However, our application will also be able to suggest events based on result from the Eventful API and Facebook events using the preferences given by the user. Once a user chooses to attend an event, this event is stored as an attended event for that particular user.

Since we plan on developing for the Android phone we will be using the Android SDK. In addition we will be using a machine learning package, like Weka, so we can have access to

efficient machine learning algorithms, along with using the Google Maps API for integration with our user interface, and C2DM, which is a message passing library used for passing data from servers to the Android phone. We would use Google App engine to host the back-end of our application. Initially this service would be free, however, if our user base grows too large we can purchase more space from Google.



Challenges and Risks

Since this project will be heavily based on programming for the Android phone, our project members must have a good understanding of Android development. To minimize this risk, we could allocate experienced Android developers to other developers who have little to no experience to answer questions. In addition, those who would be interested in doing this project would most likely either be interested in developing on Android, meaning they are willing to spend time to learn, or have previous experience. Also, in order to use C2DM we would have to request permission from Google Labs.

The other large risk is that the overall functionality of this project is dependent on the machine learning aspects working well. In order for this to occur we would need to gather a sufficient amount of data about a user to start producing good suggestions as well as removing irrelevant features to the algorithm. To mitigate this risk we could try to produce a ranking system that would choose more popular events over less popular events so that users may have a higher probability of enjoying the events.