CS 4720 - S17 - Final Project Proposal

Device Name: Blastoise Platform: Android

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App Name: Safe Nights

Project Description:

Our app, Safe Nights, will provide dual functionality as a mechanism of keeping one safe when going out for a night of drinking as well as a personal tracking system for long-term alcohol consumption. Staying safe while participating in activities that causes loss of physical and mental capabilities can be a huge challenge. By creating an app that allows people to set a safe place at which they would like to end their night, users can have a “safety net” that alerts friends/family if for a number of reasons end up in a place they didn’t necessarily want to be. Alcoholism is also a large problem in the United States. By providing a system that allows users to self-track their alcohol consumption after their safe night out, people can gain a greater insight into their alcohol activities and the effect it has on their lives long-term.

What we propose to do is create an app that will do the following:

- The system shall track a user’s location over the course of 12 hours;
- The system shall send data by SMS/email to specified contacts if user is not where they want to be (previously specified by user);
- The system shall allow a user to store list of contacts and locations;
- The system shall allow a user to self-report their alcohol consumption for a specific date;
- The system shall graphically display the user’s alcohol consumption and money spent on alcohol over time;
- The system shall allow a user to see their geolocation history from their previous night out (if for some strange reason they cannot remember); and,
- The app will have a helpful tool for advice on curing hangovers.

We plan to incorporate the following features:

- GPS - The system will track a user’s location over the course of 12 hours
- Accelerometer - The device’s acceleration will be used as a measurement of when a user is “done” for the night (passed out/fallen asleep/cannot move/etc.)
- Data storage using Core Data - We will store the user’s contacts, list of saved locations, and geo-locations over the course of a night in a relational database on the device

locally. The entries for how much a user drinks each night will also be stored in a relational database to record drinking habits over time.

- Open shared activity / features - Contacts specified by user will be sent an SMS message specifying the user's start/end of a safe night, or the user's last location if the user's phone battery dies/app shuts down. Contacts will also be sent a notification if the user's accelerometer does not trigger for a 30 min period and the user is not where they previously specified they would like to end up.

Wireframe Description:

Our wireframe shows the basic layout we are envisioning for our app. After the launch screen appears, there is a main menu that lead to the four main functions. The first is a "Get Started" button that moves to screen 2 (the adjacent screen to the right). This enables the user to pick their final destination and people they wish to contact. From screen 2, they will add destination by clicking a saved home or inputting a new location from a modal (which pops up when they hit "Other"). They will add contacts by selecting contacts from their device which will be done from screen 3 once they hit the "Contacts" button on screen 2.

The second menu option is "Add Drinks" which in screen 4 allows the user to record the date, amount spent, and number of different types of drinks for a night out. Each drink is set up as the major categories of drinks - beer, wine, hard liquor, and shots. We believe these are the most common general types of drinks that will allow for users to input their night quickly and without thinking too hard (we will of course test it with friends and adjust as needed). The third menu option is "History" which in screen 5 shows a weekly, monthly, or yearly graphs of the amount of alcohol the user had as well as the total amount of money they had spent. We believe these graph allows a user to see a broad scale view of their alcohol behavior over time in the most convenient way (similar to fitness tracking recording popular currently).

Finally, the fourth menu option, "Last Night", can be seen in screen 6 as a Google Map with pins on where the user was from their last tracking session. Beneath the graph is a chronological list of the places the user had been with details for a deeper look into their night. We would like to include a helpful tool for advice on curing hangovers; if we include that, it will be added to the top menu bar probably (still thinking about it).

Note: Our WireFrames are in the 2 other PDFs located in the root directory