**Project Idea**

Mobile application that suggests a list of suitable locations for a meetup between two users of the application. The application would use the built in GPS, or other location acquisition mechanism, to identify both users’ positions and compute an appropriate midpoint to meet at based on the users’ preferences (for example the users will be prompted to pick a type of location they would like to meet at i.e. coffeeshop, restaurant, fine dining, etc.. They will also have the option of retrieving a set of coordinates that is perfectly situated between all users and be prompted to use it in any other map application i.e. google maps) The application is to show the route to the destination from each of the users’ starting points and will also be able to share the location of both the users participating in the meetup and show each of their estimated time remaining to reach the assigned destination. In addition,

it can login the user through facebook and enable them to pick the user of whom they are planning on meeting from a list of existing users in their facebook friends list or their contacts list.

**Project Idea: Lost phone tracker**

We are planning to develop an application for tracking and alerting phone devices when it is lost. We plan to create a network of mobile application users to find the device by giving them an alert of the location of the phone. The motivation for other users finding the phone will be an incentive given by the user who lost the device. The application has two modes: an alert mode and an idle mode. The application will be in idle mode when the phone is not lost. We will use the accelerometer as a motion sensor for identifying if the phone is falling down on a vertical axis. The application is set to an alert mode and it alerts the user by sound. If the user does not respond, it sends a bulk notification to all the nearby users at a range of 100 meters. When the phone is lost and the user triggers the application, the user can remotely switch phone profiles such as turning the phone from silent to loud and vice versa.

Project Idea -

We are planning to develop a ‘HelpU’ application, it will be a utility application. The application will help the users in case of emergencies. The application will have some stored contact numbers (provided by user), on to which the message and location will be automatically sent when the application is triggered. For this we will be using GPS for location tracking. Apart from this we will be using motion sensors, and if the device is shaken, the app will be triggered which will automatically start the video recording and will call 911.

And the application will also allow user to configure location aware actions, which will be triggered when user arrives at a specific preconfigured location.

@And user can also send his location just to inform the emergency contacts about his location for @preventive measures, by just a click that will message the contact about the user location.

Project Idea:

We are planning to develop a Health companion app that would assist the user in maintaining his/her fitness level on a daily basis. We are going make use of the different sensors available on a smartphone such as the proximity sensor, GPS, Gyroscope and accelerometer. For example if the user performs abdomen crunches in gym, we use the gyroscope to count the number of crunches done and calculate the calories burned. We keep the track of number of miles the user walks or runs every day using the accelerometer. Also, we use the GPS to track the user when he/she enters any restaurant and prompt them to enter the details of the food they order so that we can calculate the calories they are going to consume and update their daily calories data. Even if the user doesn’t enter any restaurants during his meal hours, the app automatically prompts the user to enter the details of the food they are having at home. At the end of the day the application gives the user details about the calories burned and the total calories consumed on that day.

Project Idea: Idea of mobile application you will develop.

We are planning to develop a mobile application which would put the device on silent during class hours without taking any input about class timings from the user. The application would keep a track of user's location using GPS and derive a pattern of the from the user's movements. It would try to detect whether the user is in a university building and take action accordingly. If the application is not certain about making the decision then it would prompt the user. But if the application sees a consistent pattern then it would put the device on silent without confirmation from the user.

**Project Idea:**

We are planning to develop an android application that will allow users to find the location of their friends & family in near real-time. The application will retrieve the location based on the mobile GPS. Two users should agree to share their respective locations for real-time tracking to be possible. The application will have a user interface with a simple map showing the location of the friends added if they have logged in to the application. Apart from using the GPS to retrieve location information, the application will make use of other sensors like Accelerometer and Gyroscope for determining the motion of the mobile device. The application will monitor the location of the user’s friends and will send a notification to the user if any of his friend is in a nearby radius.

**Project Idea**

We plan to develop an application that will allow Arizona State University students to find events around the university and facilitate in making the user to read about the events, check in and connect with other attendees. The application will find the events based on location, date and user’s availability (based on the calendar). These events are added to the app manually by organizers and in addition to that, we intend to get the events data through an API call to Orgsync and ASU events. Once the user checks in for an event, it will be added to the calendar. The history of events attended will be stored under the user profile and the user will have an option to go through this history data. We intend to provide recommendation system to the user based on event attendance history.

**Idea**: Develop a secure architecture for transmitting encrypted health data and ensure its secure access with the help of physiological authentication.

**Project Idea**

We are planning to build an all in one Weather Application on Android. This application will parse open Weather APIs available to give the current weather conditions based on location extracted from the GPS or entered by the user. We also plan to provide several other functionalities such as alert notifications for severe weather, 7-day weather forecast, weather on map, a weather widget, sunrise and sunset info, location history and a sharing functionality. We intend to provide some UX related features such as changing the UI to suit the weather conditions.

**Project Idea:**

We are planning to develop an application which pushes event notifications to all mobile devices which have registered for the particular service in the given location range. Server (GCM) maintains a constant update of client’s location. Based on user’s location, server pushes relevant notifications to the users mobile. User can also subscribe for various categories based on his interest.

**Project Idea**

We are planning to develop an application which would help the user in an emergency situation. This would require a GPS connection to get the location of the user when he/she is in an emergency. When user is in an emergency, he/she will use this app which will send the message to the pre-defined numbers of close contacts about the location of the user with some emergency alert. This app will also play the siren when the use is in an emergency situation and starts this app. Additionally, this application send the location of the user every four hours to specified email id even if the application is not open.

**Project Description**

We propose to build an “Automatic Alarm” application. Most existing alarm application requires the user to explicitly set the wake up time, however this application is useful for people who forget to set alarms and end up sleeping too much or too less. Once installed the user just has to set his target sleep hours every week or every other week and the application automatically sets the alarm and wakes up user. We feel this application is useful for people who want to maintain a healthy sleeping habit but forget to set alarms.

**Project Idea**

The data from the University Office of Evaluation and Educational Effectiveness, and the Help Desk shows that most recent graduates find difficulty with understanding financial aid application information and keeping up with the deadlines. Our app leverages the rich data set collected by the Help Desk and the University Office of Evaluation and Educational Effectiveness and helps the students keep a track of all the financial aid information applicable to them by creating interactive game modules to disseminate financial aid information.

**Project idea**: We are planning to develop a mobile application using which people who need rides and those who can offer rides can collaborate. We will use the itinerary entered by the ride providers and requesters to find the ideal matches. We also provide the option of using GPS to enter the current location of the users. We will show the route to the users to the meeting place using map. The users can provide reviews and ratings to one another. This application is eco- friendly as it helps in reducing traffic and consequently pollution.

**PROJECT IDEA:-**

 “We are planning to develop an android application which would ease the way of organizing parties and would pave way to a hassle free one.”

 In this application the person who is hosting the party can create an event which would include several features like To-do-list, Guest-list, Guest-count, Menu-specification etc.

 The party host and the people invited would be notified of the weather conditions, traffic patterns thereby suggesting them with an alternative.

 The people invited would also be notified of their availability by syncing with their calendar.

 The routing to the party will be intelligently taken care by the application considering various factors like traffic, diversion and accident etc.

 The host have the option of asking the invited person to volunteer to buy party related requirements if the accessibility to the shop is difficult as compared to the person requested, this option would be provided by the application intelligently using the to-do list and the shops those sell them with the location of the invited person.

 The person who is invited to the party can check in his/her item in case if she is getting any for the sole purpose of party, which can be viewed only by the host.

 On the day of party when the invited person comes into the Wi-Fi range of the host there would be an automatic notification and check in, to the party host as well as to the invited person that they are in close proximity.

 There would be an option of entering allergic items and food preference list which would help the host to organize the party accordingly.

 The person when he enters the party would receive a notification of greeting and as well as an option to put their phone in vibration, so that they don’t miss out any important messages.

Project Idea

We are planning to build an application which can be used to buy and sell items. This application will enable people to search and buy stuff from the zip code of their choice. Prospective buyer will enter the item of his choice and zip code as input and he will be displayed a set of results. If the buyer is interested to buy an item he will be redirected to the seller’s location in map and all the contact information will be displayed to the buyer. Search results would be displayed in text form as well as in map form

**Project Idea**

We are planning to develop an application called “help”, which stores the emergency contact numbers of the user. Our app also allows the users to register for volunteering, when he/she gets a “Need Help

“notification, they can decide to help or not.

When the user is in danger, he/she shakes the mobile phone or if possible opens the app and clicks the

“Help Needed button”, then 2-3 photos of location and location of the victim is automatically sent to the

user’s emergency contacts as well the volunteers nearby

**Project Idea**

We want to develop an Application that is similar to Postmates that focuses specifically on grocery stores. Users will be able to create a grocery list composed of items from a specified grocery store and then send that list to a shopper in the network who will then do the shopping for the user and deliver the groceries to the user’s house. This application will make use of the GPS, Gyroscope, and Accelerometer to continuously and accurately estimate the delivery time. There will also be an emphasis on quality control of users and delivery people based on a comprehensive rating and reporting system. An initial time estimate will be given and update throughout the entire transaction.

**Project Idea**

In metropolitan cities and places where parking space is a constraint, people face problems finding spots to park their vehicles. To address this issue, we aim to develop a mobile app that finds places where parking spots are available before people depart for their destination.

**Project Idea**

We are planning to develop an application which would help users to restock their grocery items, like what all items are finished at their home and if they are having a group in which there can be multiple people, then all of them would be able to add/see the finished items and any one out of all the members can purchase the items and hence modify the list accordingly. The users will receive a notification if any item falls below a minimum percentage. The application would also make use of GPS motion sensor to let the user know about the nearby grocery stores. The application would also have the functionality to add new people to the existing contacts of the user as well as synchronize with the popular app ‘Splitwise’ and import groups and contacts from there. The user will also have the functionality to add the quantity of items needed in 2 forms viz. weight and number of items. User will also be able to add the amount he has spent on the items which can then be synchronized with Splitwise and updated there. Along with this, the group users can set/modify a group budget. This means that after exceeding the group budget for an amount of time mentioned by the users, it will notify that the budget has exceeded for this particular duration.

2.

**Project Idea**: Our app 'MyBoard' is a utility app that allows the user to save clipboard data, images, travel plans and barcodes all in one place with easy access features. The data that this app is capable of saving can be categorized as follows –

a.

Clipboard -The app comes with a service that can be turned on or off by the user. With this service running in the background, the user can save the clipboard data whenever he/she selects some text and touches the clipboard icon that appears upon selection. This clipboard data accumulates into the Clipboard category of the data, and the user will have access to all the clipboard data that he/she has saved.

b.

Travel -The Travel category of the app uses the location sensor to give screen messages to the user when he/she visits a place on her Travel's list. In addition it uses the time given by the user for a particular location to send screen messages indicating the travel is due soon.

Barcodes -The Barcodes category of the app requires the use of Barcode scanner libraries which further use the camera on the phone. For instance, the user can scan all his/her membership cards that have barcodes and save them in this app and the user no longer has to carry those cards rather just open the app and scan it at checkout.

**Project idea :** Easy Recipe

Our application allows a user to log in. Its primary purpose is to provide a list of recipes to the user depending on what they select. The user gets a list of recipes ranked according to user feedback. The user can also communicate with other users regarding recipes that they have made regarding details. This is done using a messenger service of the application. Links are also available to videos of the recipe. Once the user communicates and gets information about certain store location for the required ingredients the application allows them to navigate to the given location. The application is context aware as it accepts speech and converts to text to perform any related searches for recipes of direction in the application. Photo sharing is also a feature of the application. This app is aware of the user’s location and provides notifications for nearby restaurants for specified recipe.

**Project Idea:** The application which we are going to develop is “Tutoring app”. It helps students to find available tutors in a given location. Tutors can register themselves in their area of expertise. System provides two roles to register. While registering users have the provision to register as Tutor or Student.

Students can login, update their profile and can choose the subject. System will show available tutors specialized in that subject, in that nearby location. All ratings, comments, salary etc. information will be shown on UI. User can choose the tutor based on rating and can contact Tutor. Both users and tutors can update their profile information on this app. Tutor can also see number of users showing interest under him.

This app will be helpful for students and at the same time it provides a way along with additional income for tutors.

**Project idea:**

The aim is to develop an app called Wardrobe Manager, which can help people make their daily dressing decisions. The app would first ask the users to set up a personal wardrobe by collecting pictures of their clothes. It would then classify those clothes into different types by their styles (e.g. t-shirts, shorts, skirts, dresses, etc.) and colors. Upon using this app, it will combine different context factors together to give the user several possible dressing recommendations. The first context considered in the app is temperature and local weather conditions. For example, in rainy days, the app would suggest some clothes that are water proof or easy to wash. However, in sunny days, cloth styles and colors would be a more important factor for the recommendation instead. Also, the app will integrate the events in the calendar for special occasion dressing recommendation. For example, when wedding or career fair is detected by the app from today’s events, formal attires will be recommended by the app accordingly.

Long time goal (beyond the scope of the project of this course due to limitation in time) is to incorporate machine learning, and social networks to learn the user dressing patterns and give more personalized suggestions. In addition, the app can be linked to e-commerce sites as a personal shopping guide for the user.

Project Idea

In most cases we are late for meetings or appointments just because we underestimate the time that we need on the road, especially our current point or destination is unfamiliar. So we are planning to build an android app that can remind users of events in ASU Tempe Campus. The reminder app will alert users when the time approach the travel time that is supposed to calculate from our location-based application. For instance, if there are a career fair holding in location A and user is in location B, our app will automatically calculate the time need to travel from location B to A and we assume it is five minutes. If the user set the reminder, it will alert the users five minutes before the beginning of the event. When the user receive the alert and open the app, it will navigate the user to the destination.

Project Idea: Idea of mobile application you will develop.

We are planning to develop a one stop application that would be used by students to do a numerous tasks which will help them in number of ways. As students, especially during the initial few months on a huge campus in a new city with so many people, we have faced challenges in connecting with fellow students, finding new places to shop and eat, or even locating a building on such a vast campus. We have to constantly switch between various apps on the mobile phone to find such information. The idea is to integrate numerous utilities that a student would require. We plan to provide the following functionalities in our application-

1. Connect with fellow students who are enrolled in the same course.

2. Record submission deadlines and other to-do items.

3. Find places on and off campus such as class location, restaurants, grocery store etc.

4. Email integration in order to contact instructor or share files between students.

**Project Idea**

2.1 Idea of mobile application to be developed

We are planning to develop an application that will aid users in finding the optimal combination of bean type/quantity, brew temperature, and brewing method in order to enhance the user’s daily coffee experience. This will involve the use of location sensors in order to determine whether or not a user in home. For instance, if the user is located at home, the application will recommend that they brew coffee they own using brewing devices they own. Likewise, if the user is away from home, the application will recommend retail locations that provide coffee for purchase. Also, we will utilize the system clock in order to recommend different dosages of coffee. For example, late in the day, the applications recommendations will be less caffeinated. Finally, weather services will be utilized in order to tailor the coffee recommendation to specific meteorological conditions.

**Project Idea**

The idea is to develop an app that allows people to automatically send emails and/or text messages based on a scheduled time or location. For example, one may want to schedule an email message to a loved one on a particular occasion like a birthday; or one may want to message a friend for pickup when he or she is close to their house. We will use system time and

Project Idea:

For this project, we are planning to develop two applications and one server, one of which (application1) is used to upload data retrieved from sensors such as gyroscope, accelerometer, navigation, audio, video and photos to a remote server which is implemented in Java via socket. The other one (application2) is used for retrieving data that is uploaded from the former application and stored in the MySQL database on the server then shows data on the smart phone to interact with user.

The server is implemented in Java that is used for listening requests from the two clients. Whenever, received data from one application, server is in charge of saving data into database in terms of user’s profile. When receiving a request from another kind of application, server will check its permission first and then grab the related data and send it back. Server is in cloud.

**Project Idea & Project Relevance to the class:**

*“Use Wifi based location sensing to perform scheduled tasks on phone:”* A common observation among

humans is, we prefer being connected to a wifi network, since it is faster than the network by a service

provider. Another interesting observation is that wifi network SSIDs do not change as frequently. This

project attempts to connect these observations to perform user specific tasks. The user will be able to

schedule operations on his own or use suggestion from the application.

This project addresses context aware design to recognize and perform user tasks automatically

Project Idea:

We are planning to develop a Dumb Charades game for users of this application. A person will enact a movie to another person or group of people and they have to find the movie within the allotted time. The actor should not speak during the game.

This application will allow users to connect with their friends and play this game. The main idea of the app is based on the fact that the players can be at any physical location while playing the game. The application uses video and audio communications over IP between the users. This would require the use of in-built camera of the device.

***Project Idea:***

We are planning to design a smart runner’s music player. The player will dynamically detects the cadence of the user in real--‐time, and play the music whose tempo most matches the runner’s cadence.

Our primary design incorporates the use of built--‐in Accelerometer in modern smart phones to detect the cadence (steps) of the user.

When the user is running or walking, there would be cyclical changes in Xaxis, Yaxis and Zaxis data output by the Accelerometer. Based on this pattern, we will use existing algorithms to design a pedometer that detects the user’s cadence and cadence changes in real--‐time.

When the user’s cadence changes, the player will automatically switch to the most matching music from the local music library. To obtain the tempo of the music, our app also includes the tempo detection function, which allows the user to detect the tempo of the music through a sequence of simple taps on the screen. This can be done at the time when each music clip is first imported into the library.

**Project Idea:**

Conference app: This application would enable users to plan conferences. It has the activities like initiating a new conference, maintaining the current conferences, saving minutes of the conference, sharing information from conference, notifying users about state and status of the conferences, maintaining attended conferences, helping users with location services to attend a conference etc.

This project is relevant to this class because it will fit into a scenario where the app handles data and user request in various contexts. A conference, application we chose to develop has a number of tasks like Time and Location notifications, share the minutes of the conference and inbuilt context based app functioning like reducing the background tasks in case of low battery, reducing the network related options provided when the user is on his carrier network or low bandwidth etc.

3.