CSE 535 Project Proposal - Group 10

Phase I

1. Project Members

Chaitanya Phalak (1211203003)
Mayank Khullar (1210873882)
Abhishek Zambre (1210933864)
Murali Ravivarma (1211230706)

2. Project Idea

We are planning to build a personal assistant application on android. This application will aid the user in performing daily tasks. Some of the tasks include updating user about upcoming meetings using calendar, recognizing voice commands from the user to perform tasks, voice search on the web based on user input, updates about weather depending on user location, creating tasks and reminders, auto-reply to SMS messages, send birthday messages to user's contacts on their birthdays, suggesting restaurants/shopping places based on location, playing music/video from user's device depending on user commands.

Project Relevance to class:

3. Plan to use external sensors:

For this project we do not require any external sensors

4. Type of platform being used:

The app should work on android phones of API level 22+ (Marshmallow and above)

5. Development Setup

Android Studio 2.1
Testing: Emulator And Personal Cell Phones

6. Specification of context aware behaviour

I. The current location of the user will be taken using GPS which will be used for suggesting restaurants and shopping places nearby. Also the location will be used to suggest the weather conditions to the user.
II. The calendar information will be taken from Google Calendar and the date time information will be taken from the system, and using this with the location information user will be suggested routes to be taken to a meeting and how much time it will take to reach the place.
III. Using location of user if user is present in class/library auto reply to text messages as busy.
IV. Using Time and date send happy birthday messages to users contacts on their birthday.
V. Using location of user if user is present in library/class the phone will be put in do not disturb mode.

VI. Get fair estimates for uber ride to a location and book a uber cab.
VII. Changing wallpaper after certain period of time.

7. 20 tasks for the project (with the category – Acquisition, Delivery and Reception, Action)

1. Route suggestion - Specification: Using calendar information and time route to a destination will be suggested to the user. **(Chaitanya)**
2. Calendar and Date/Time - Acquisition: The data from System Calendar/Google Calendar is acquired and current date and time is acquired, previously saved information of meetings is used from a database. **(Chaitanya)**
3. Route suggestion - Action: The current location, current date and time, saved meetings information and Google Maps API is used to suggest a route to the place of meeting for the user. **(Chaitanya)**
4. Route Notification - Delivery And Reception: The route notification will be available to the user which will trigger an instance of maps and show the route to the user. **(Chaitanya)**
5. Weather suggestion - Specification: Suggestion of weather conditions to the user using the current location of the user and the weather data from a weather API. **(Chaitanya)**
6. Location using GPS - Acquisition: The current location of the user is acquired using GPS and the weather data is displayed. **(Mayank)**
7. Notification Of weather - Action: Using the current location of the user and weather data notifications updates are provided to the user. **(Mayank)**
8. Auto Reply to text messages - Specification: If the user is in class or library an auto reply to all text messages is sent stating that the user is busy. **(Mayank)**
9. Location using GPS - Acquisition: The current location of the user is determined using GPS and auto reply to text messages feature is available depending on location. **(Mayank)**
10. Auto Reply to text messages - Action: If the user location is library or class or a custom location or a custom time range specified by the user then the app will auto reply to text messages stating that the user is busy. **(Mayank)**
11. Auto Reply to text messages - Delivery And Reception: The user preferences for a custom location and date/time range are stored in a database. **(Abhishek)**
12. Do Not Disturb mode - Specification: If the user is in class or library the phone is put in do not disturb mode. **(Abhishek)**
13. Location using GPS - Acquisition: The current location of the user is determined using GPS and do not disturb mode feature is available depending on location. **(Abhishek)**
14. Do Not Disturb - Action: If the user location is library or class or a custom location or a custom time range specified by the user then the app will put the phone in do not disturb mode. **(Abhishek)**
15. Do Not Disturb - Delivery And Reception: The user preferences for a custom location and date/time range are stored in a database. **(Abhishek)**
16. Do Not Disturb - Acquisition: Meeting timings are acquired from Calendar and it is used for enabling do not disturb mode. **(Murali)**
17. Happy Birthday - Specification: Using Time and Date send happy birthday messages to users contacts who have birthday on that day. **(Murali)**

18. Happy Birthday - Delivery and Reception: The user's contacts birthdays will be stored in a database. **(Murali)**
19. Happy Birthday - Acquisition: The User's contacts birthdays will be obtained from Calendar/Google Calendar and inserted into a database. **(Murali)**
20. Happy Birthday - Action: Using Time and date from the database send happy birthday messages to users contacts who have birthday on that day. **(Murali)**