2/11/2015

My Shared Diary

Android Application Project

Project Plan Document

Project Group: PG2

Team Members

Chelle, Vishnu – 07

Arumalla, Chandra Mouli – 03

Lam, Sundar Sagar – 19

Salapaka, Phanideep – 28

I. Introduction

The idea of this project comes from the question which each one of us encounter at some point of our daily life "What have I done during last week/month/someday?", and we don't have an answer. We believe- "Human brains are very powerful to remember almost everything that happens but humans are not that powerful to restore that information from brain". Here comes the necessity of having some other system to track and store our daily activities. This was done traditionally from ages by writing a "Dairy" mostly at the end of day about the events of that day. But now with the busy modern work life, it is difficult to find time to sit and write about ourselves. But still we have to track ourselves right?

This gives us the motivation to create something which will be with us throughout most of our daily time and track out events. Now the question comes what we have to create? Based on our understanding on this modern world we are making this statement "Smartphone is almost a human body part." This motivated us to consider smartphone to track our daily activities.

II. Project Goal and Objectives

Overall goal:

Our main goal is to build an android application [9] which will replace the traditional system of writing dairies in books. We know that this is not a new idea but our objective is to make a part of our personal dairies to get shared between communities. A user can share his/her info as private information which will remain on his time track also share some common events or info with his communities like friends and family. Objective is to track ones individual life based on timestamp and location as well as track daily events of the person based on communities like family.

Specific Objective:

To be specific our objective is to answer two simple questions of an individual:

"What I have done in last month/week/specific date?" – Provide tracked input of user including metrics like travel, restaurants etc.

"What my community (e.g.: family) has done in last month/week/specific date?" – Provides all the shared information from the users belonging to a specific group.

III. Related Work

We have a lot of applications available for storing notes and daily activities. Evernote [1], Private Dairy [2] and Personal Diary [3] are few applications that are in this category. Evernote [1] is generally thought of as a best-in-class note-taker. Mobile version is available for IOS, Android, Windows and blackberry platforms. Evernote allows users to store texts, images and voice notes. It stores the data on servers. The user can store data in their mobiles when offline and can sync it with the server later.

Private Dairy [2] is another application available for Android and Kindle platforms. This application allows us to store texts and images. It stores the data on the server. Users can also record data when offline and sync them with server later. Personal Dairy [3] and Daily Log [4] are few android applications which allows user to store texts and images. The user can store the data in his/her Dropbox.

The data stored in these apps is completely private and there is no option to create communities to share data. Our objective is to create a new android app to include the feature to create communities and share data along with the already existing ones. Also we are trying to perform background analytics based on the user input which will give better results for the user.

IV. Proposed System

Functional/Non-functional Requirements:

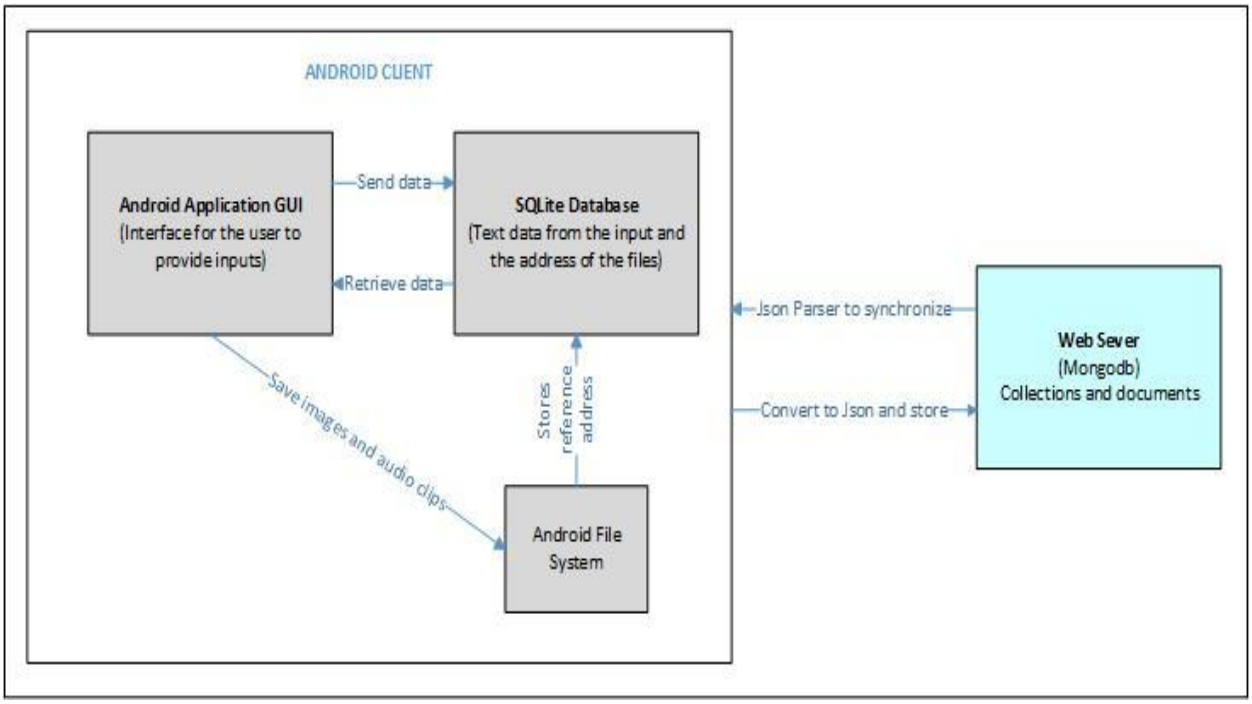
1. System will allow user to create an account which will be password protected.
    a. Username will be the email ID of the user and will be unique.
    b. Login through Facebook will be provided. However user should create new pin to make the app secure. Facebook API [5] will be integrated.
    c. Password/pin will be encrypted and saved in the memory.
    d. Other user details include basic details such as name, home/work address, phone number etc.
    e. User details are saved in both client and the web server.
2. Each user will be able to create groups/communities to share a part of his daily information.
    a. User will be able to create a community and invite others to join the community. The invitee should be a user of the system.
3. System will allow user to input his/her daily tasks of writing, daily events, images, audio.
    a. A user friendly GUI will be developed to allow user to input the information.
    b. All the information will be stored based on the time stamp.
4. When the user is inputting the data, the user will have option to choose whether the information is private or to share with specific community.
5. The input data will be stored in the phone memory (offline) and will be updated in the web server when the user is online. This feature will give the user to use the app offline.
    a. A web server will be maintained which will have all the user details and the information. However user information is not encrypted in the server.
6. System will also provide a feature for the use to plan future tasks.
7. All the input posts are stored based on the timestamp and location which will allow the system to track the old data as well as to perform background analytics.
    a. The system will save the location of the user in intermediate times and perform background analytics to calculate interesting results like the users travelling history. Google Maps API [6] and the Android framework Location API in the package android.location.
8. The system will also have feature to generate notifications to get inputs from the user in an easier way. For example if the user is at the same location for more time during lunch time the system will try to pop a notification “Are you having lunch? Where? (We are planning to suggest nearby locations as well).”
    a. We will be using Google Maps API [6] integrated with Yelp API [7] for the suggestions.
9. We are planning to track the core daily activities of the user such as time waking up, time to sleep, food timings etc., to generate interesting analytics which can be presented back to the user.

a. Yet to plan a design strategy on how to grab these details from the user in a simpler fashion.

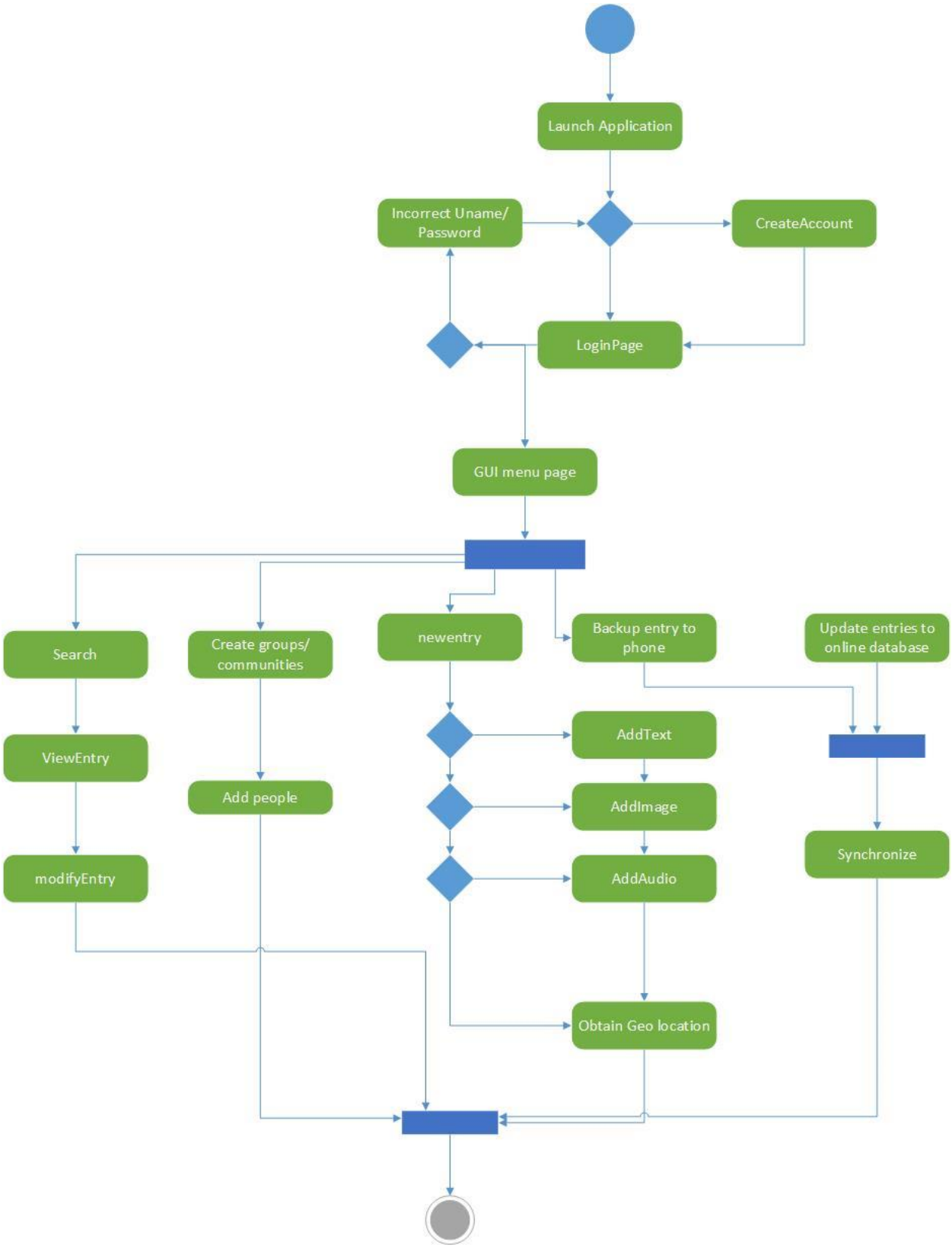
Note: Our future work for the project includes improving the current features as well as adding additional features in the new increments. Main goal of the project is to design the system for the above specifications. Our future work also includes developing a web GUI for the system.

Overall System:

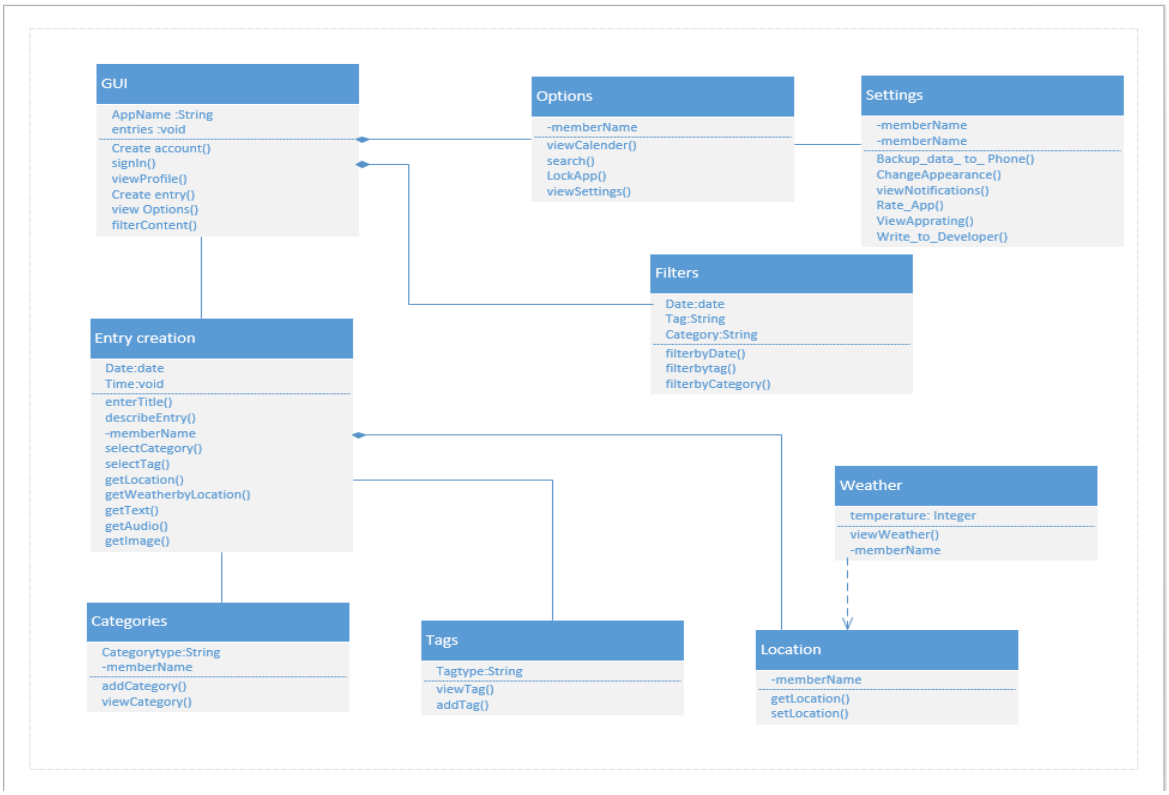
Overall system will comprise of Android client with the inbuilt SQL lite database and Webserver which is planned to be Mongodb [8]. The Android client will be always available to the user (even offline), and the data will be stored in the local phone db. Once internet is on, the local database and the server database will be synchronized. The server database will also synchronize the community data which is being shared with all the users in the community. In the web server data will be stored in the Jason format, mapped in similar with the SQLite database.



System Activity Diagram:



Sample Class Diagram:

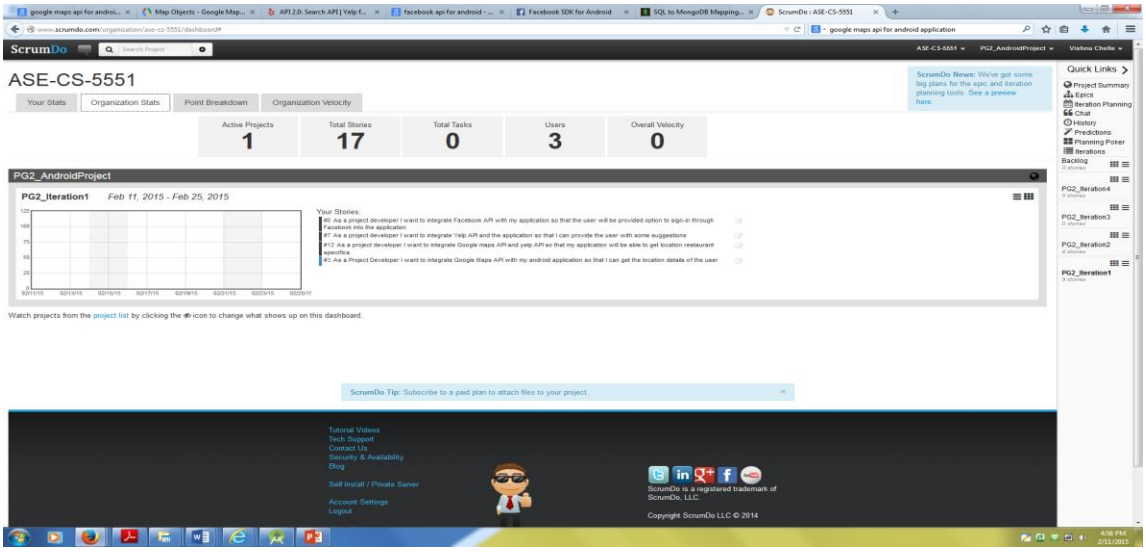


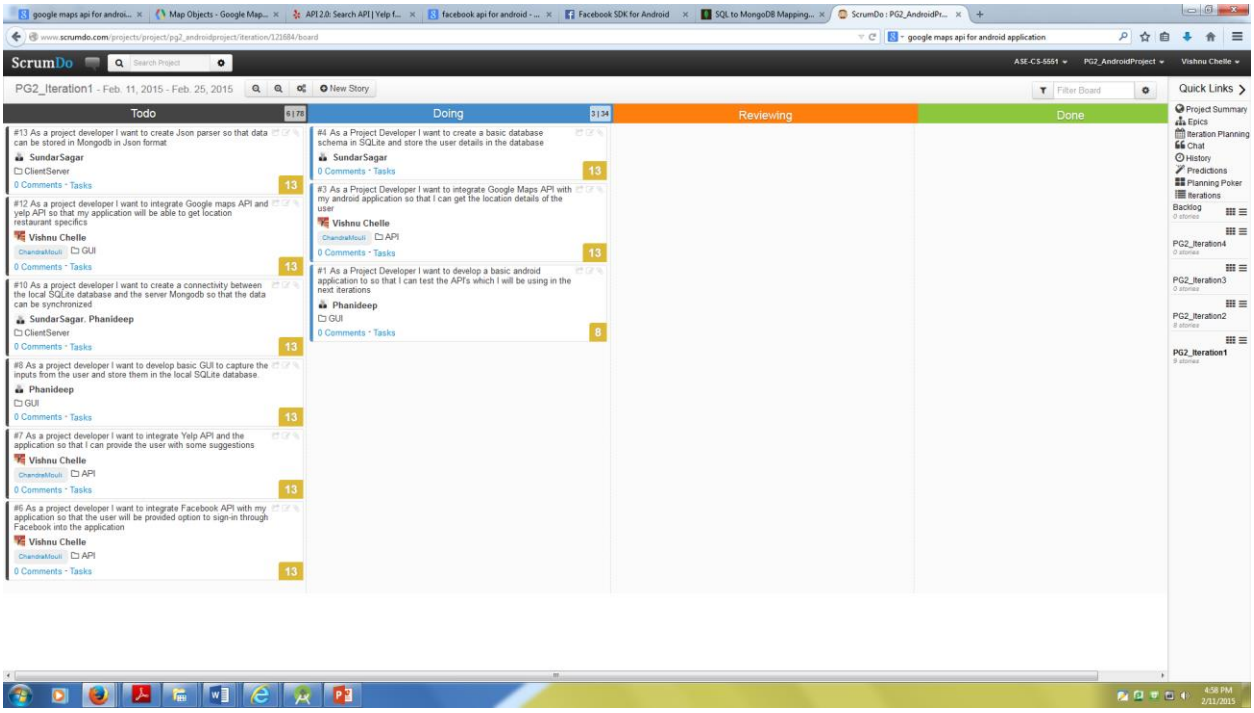
V. Project Planning – ScrumDo

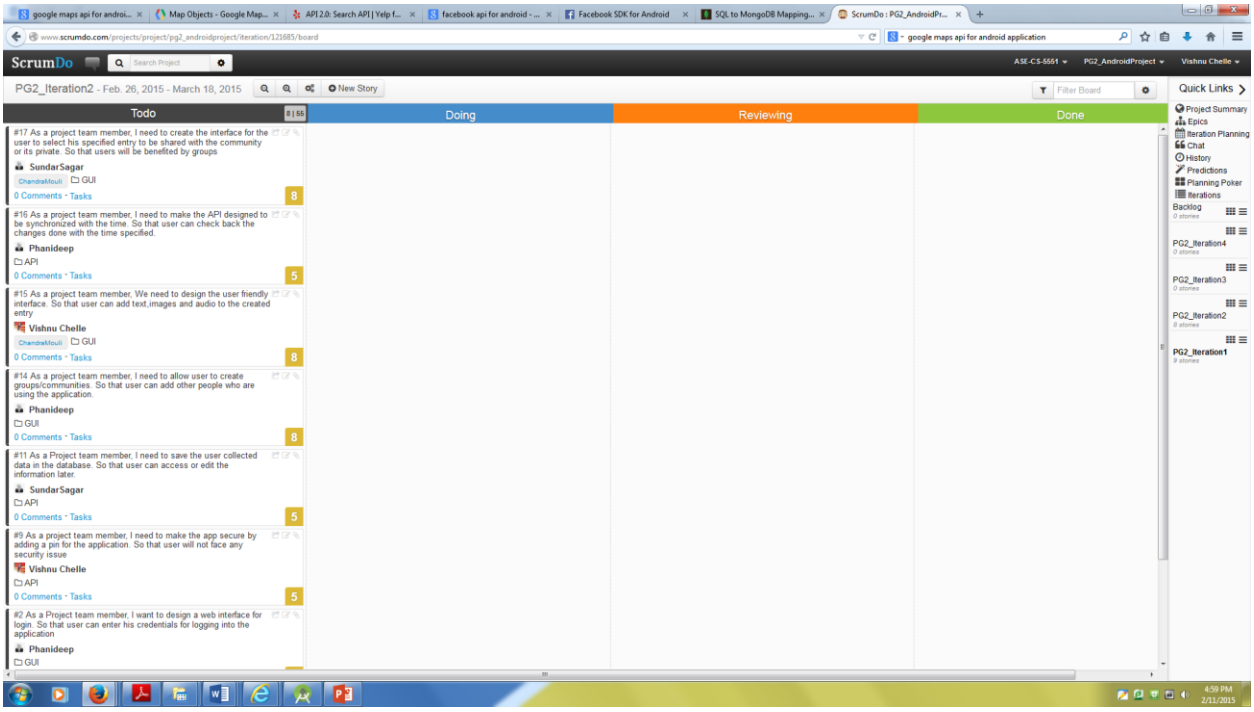
SDLC: Agile Methodology

Project Management Tool: ScrumDo

Below are the screenshots for the first two iteration in ScrumDo.




ScrumDo
PG2_Iteration1 - Feb. 11, 2015 - Feb. 25, 2015
New Story
Filter Board
Quick Links
Todo
Doing
Reviewing
Done
#13 As a project developer I want to create Json parser so that data can be stored in Mongodb in Json format
SundarSagar
ClientServer
0 Comments · Tasks
13
#12 As a project developer I want to integrate Google maps API and yelp API so that my application will be able to get location restaurant specifics
Vishnu Chelle
GUI
0 Comments · Tasks
13
#10 As a project developer I want to create a connectivity between the local SQLite database and the server Mongodb so that the data can be synchronized
SundarSagar, Phanideep
ClientServer
0 Comments · Tasks
13
#8 As a project developer I want to develop basic GUI to capture the inputs from the user and store them in the local SQLite database.
Phanideep
GUI
0 Comments · Tasks
13
#7 As a project developer I want to integrate Yelp API and the application so that I can provide the user with some suggestions
Vishnu Chelle
API
0 Comments · Tasks
13
#6 As a project developer I want to integrate Facebook API with my application so that the user will be provided option to sign-in through Facebook into the application
Vishnu Chelle
API
0 Comments · Tasks
13
#4 As a Project Developer I want to create a basic database schema in SQLite and store the user details in the database
SundarSagar
0 Comments · Tasks
13
#3 As a Project Developer I want to integrate Google Maps API with my android application so that I can get the location details of the user
Vishnu Chelle
API
0 Comments · Tasks
13
#1 As a Project Developer I want to develop a basic android application to so that I can test the API's which I will be using in the next iterations
Phanideep
GUI
0 Comments · Tasks
8
Project Summary
Epics
Iteration Planning
Chat
History
Predictions
Planning Poker
Iterations
Backlog
PG2_Iteration4
PG2_Iteration3
PG2_Iteration2
PG2_Iteration1


ScrumDo
PG2_Iteration2 - Feb. 26, 2015 - March 18, 2015
New Story
Filter Board
Quick Links
Todo
Doing
Reviewing
Done
#17 As a project team member, I need to create the interface for the user to select his specified entry to be shared with the community or its private. So that users will be benefited by groups
SundarSagar
GUI
0 Comments · Tasks
8
#16 As a project team member, I need to make the API designed to be synchronized with the time. So that user can check back the changes done with the time specified.
Phanideep
API
0 Comments · Tasks
5
#15 As a project team member, We need to design the user friendly interface. So that user can add text,images and audio to the created entry
Vishnu Chelle
GUI
0 Comments · Tasks
8
#14 As a project team member, I need to allow user to create groups/communities. So that user can add other people who are using the application.
Phanideep
GUI
0 Comments · Tasks
8
#11 As a Project team member, I need to save the user collected data in the database. So that user can access or edit the information later.
SundarSagar
API
0 Comments · Tasks
5
#9 As a project team member, I need to make the app secure by adding a pin for the application. So that user will not face any security issue
Vishnu Chelle
API
0 Comments · Tasks
5
#2 As a Project team member, I want to design a web interface for login. So that user can enter his credentials for logging into the application
Phanideep
GUI
Project Summary
Epics
Iteration Planning
Chat
History
Predictions
Planning Poker
Iterations
Backlog
PG2_Iteration4
PG2_Iteration3
PG2_Iteration2
PG2_Iteration1

VI. Bibliography

[1] http://www.techhive.com/article/2599838/the-best-apps-for-taking-notes.html
http://en.wikipedia.org/wiki/Evernote
https://evernote.com/

[2] http://privatediary.net/
https://play.google.com/store/apps/details?id=app.diaryfree&hl=en

[3] https://play.google.com/store/apps/details?id=com.aiguo.handydiary&hl=en

[4] https://play.google.com/store/apps/details?id=com.android10.diarylog&hl=en

[5] https://developers.facebook.com/docs/android

[6] https://developers.google.com/maps/documentation/android/

[7] http://www.yelp.com/developers/documentation

[8] http://docs.mongodb.org/manual/

[9] https://developer.android.com/training/basics/firstapp/index.html