CS 5551 First Increment Report

Group: 1

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Project Title: Multi Messenger Application

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I. Introduction

Multi Messenger application is one of the best approaches for making people interact with their friends without any interruption. Messaging friends through various applications by switching over them is tedious. This overhead can be minimized by our Multi Messenger Application. A user can message to his friend through various messengers at same time using our application. Our Application mainly aims for the new feature "Search Conversation with a keyword" and displays the result as a whole conversation involving that keyword. Search Conversation with a keyword is the main advantage of our application. It makes the user to gather all the conversation with the keyword matched. This makes the user to easily gather the useful information all at once. By not switching between applications there can be relatively less battery drain. The idea of our project can be found in project proposal document.

The project has been divided into four phases with improving implementation features. For the first iteration of our project we want to complete all design section of the application with login, dashboard page design with synchronizing the local mobile message service into our application. We have chosen the android platform to develop our application. For this first iteration, we have designed the UML class diagram, activity diagram along with wireframes. We concentrated mainly on the design part which play a major role in implementing our project.

II. Project Goal and Objectives (revised)

In recent times, the impact of mobile applications in socialising and communicating has been huge. With increase in demand for more sophisticated applications in managing and summarizing among tens of popular social networking mediums, it is great to have a single application which could aggregate and summarize through multiple messengers for different users. Our application aims in providing a platform which could enable a user to send and receive messages from all friend lists across multiple instant messengers and synchronise them under a single window per unique person (friend) in your contacts overall. Our application also primarily focusses on analysing and processing the conversation data per contact (friend) from multiple messengers. The application user would be able to "search" with a keyword in the window dedicated per friend of Multi Messenger App, to fetch the relevant data from the multiple messengers.

Below are the objectives of MultiMesenger Application:

- To synchronize contacts from different instant messengers.
- To enable each user with Send and Receive messages functionality from single window for the synchronised messenger.
- Reduce the latency and overhead of switching across messengers.
- To provide a user friendly and rich application.
- To provide the user with the functionality of searching the conversation with a specific keyword to fetch the all relevant data across multiple messengers.

III. Project Background and Related Work

There have been multiple instant Messenger Aggregators like Meebo, Nimbuzz which have been successful in providing the users to converse through different messengers from a single login. Yet, there is no application which could let users to view messages from multiple messengers in a single window. Achieving synchronisation on conversation from multiple messengers would further lead an application to smartly search and process the

information for better the knowledge on conversation history. To implement our project, we need several API's to integrate. For this first increment we want to implement the synchronize operation of local mobile SMS service within our application.

Gtalk API to integrate Gtalk service API in our application we need the Gtalk API from developers.google.com. It needs authentication and authorization of the user. This can be done using OAuth 2.0. The respective credentials such as key for accessing google api and secret key and client id for OAuth 2.0 to implement in the application. We can obtain these credentials from developers.console.com.

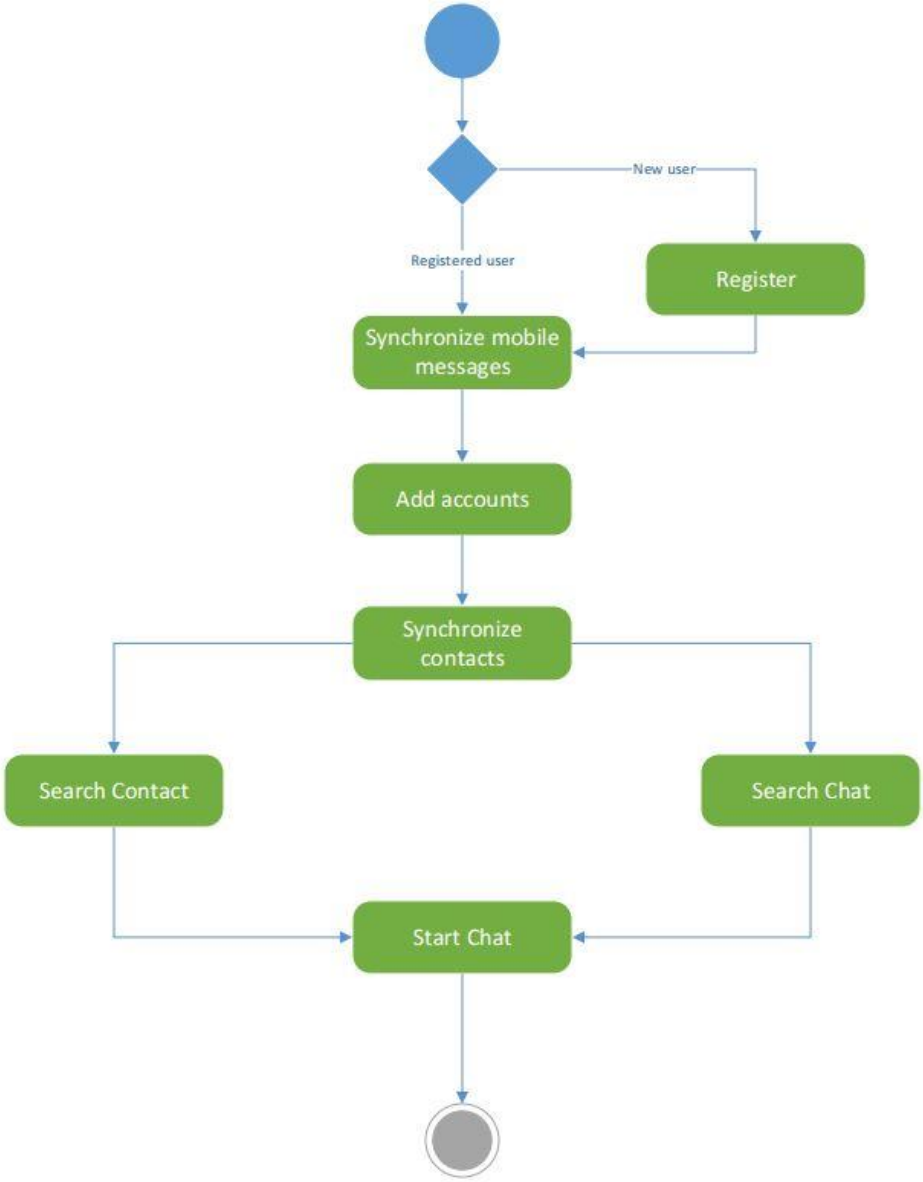
Facebook API We can get the Facebook API from developers.facebook.com. We can get different services based on type of device on which we are implementing. The available and popular types are iOS, Android, Web etc. For the first increment we want to implement the native SMS service within the app.

As per our design, we want to synchronize the incoming messages such as SMS, MMS to the mobile phone into our application. The work for that is in progress. The three major things we are trying to implement now is a Register screen, Login screen and a SMS service of the mobile screen.

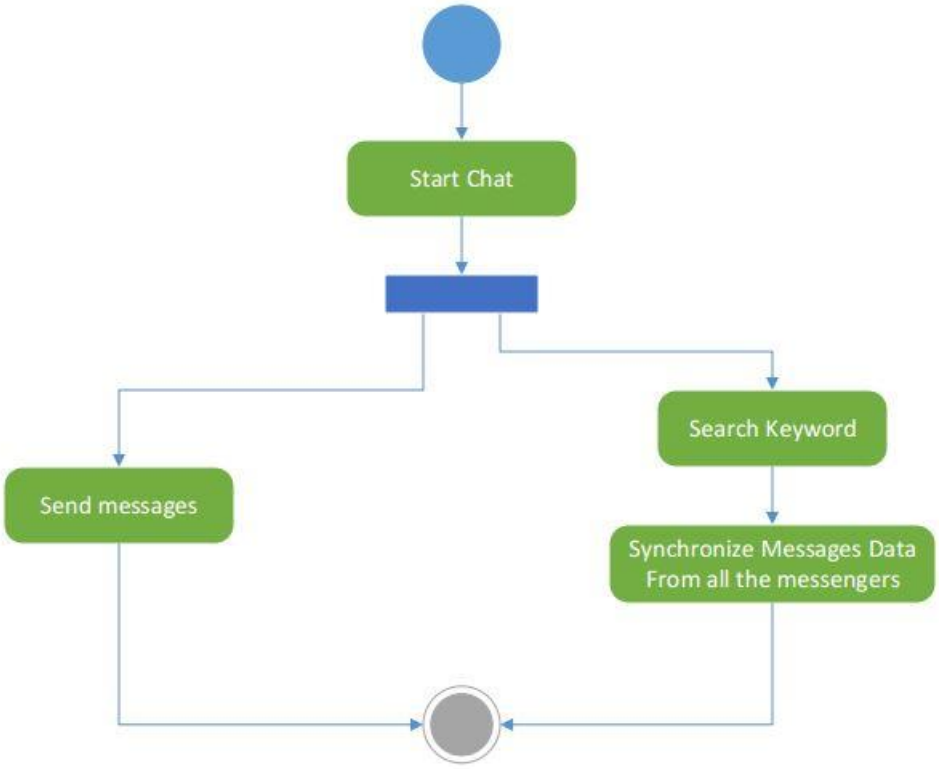
III. Proposed System

1. Requirement Specification:
    - Functional Requirements:
    i. User should have a single sign in.
    ii. User must able to view his recent chats.
    iii. User must able to view all messenger's friends list.
    iv. User must able to search in his friends list.
    v. User must able to search in the recent conversation with a keyword.
    vi. User's search should yield in a collaborative and meaningful data from all the instant messages.
    vii. User must be able add various messenger accounts.
    viii. User must be able to configure respective accounts.
    ix. User must be able to sync his phone contacts.
    x. User must be able to sync messenger contacts.
    xi. User must be able to chat consecutively through various instant messengers.

- **Business Process/Workflow analysis:**
    1. Instant Messaging

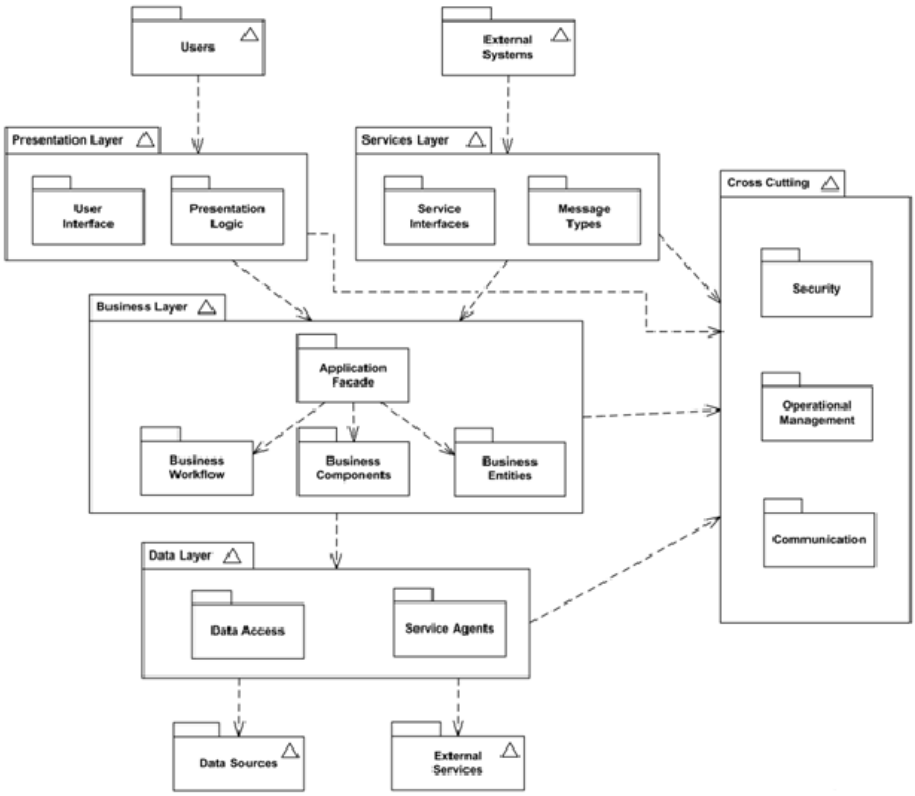


2. Chat Window:



2. Framework Specification:

- **System Architecture**

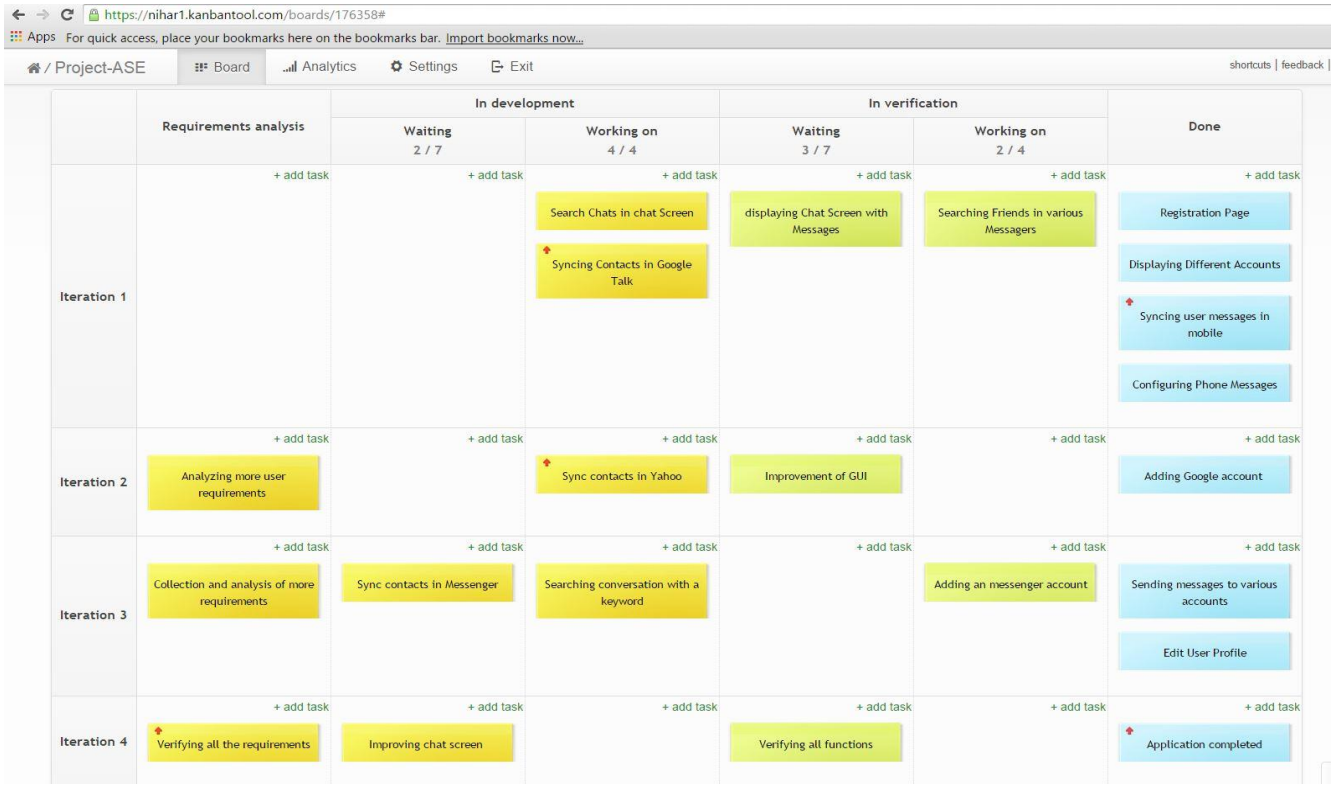


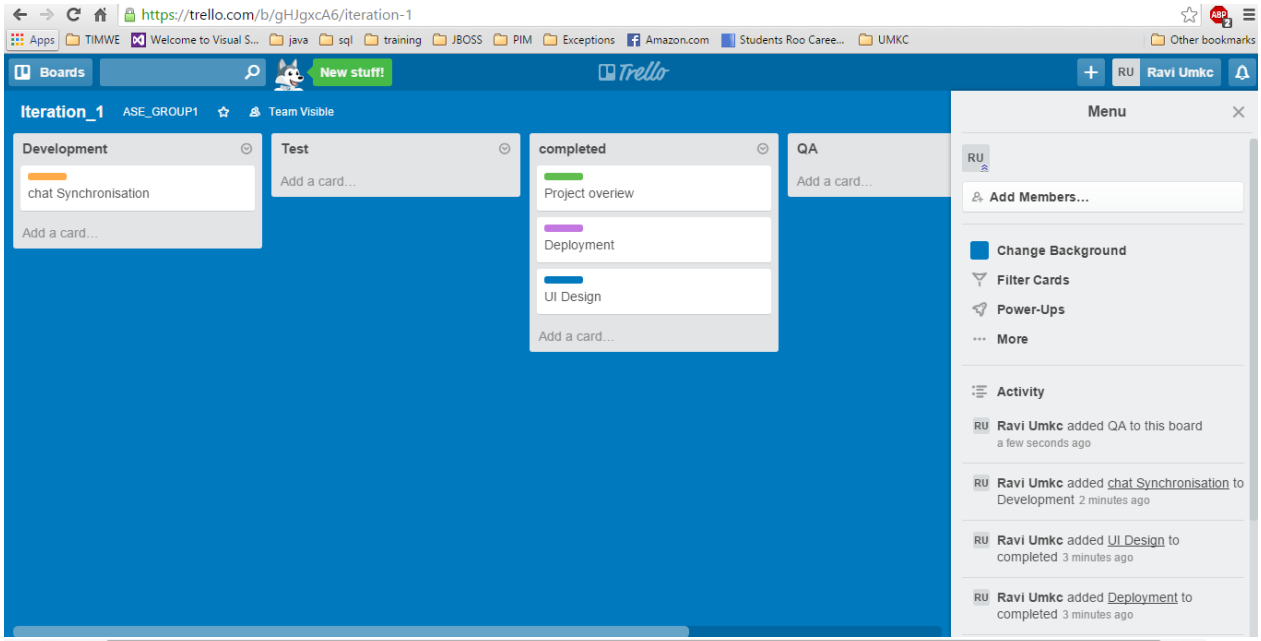
3. System Specification:

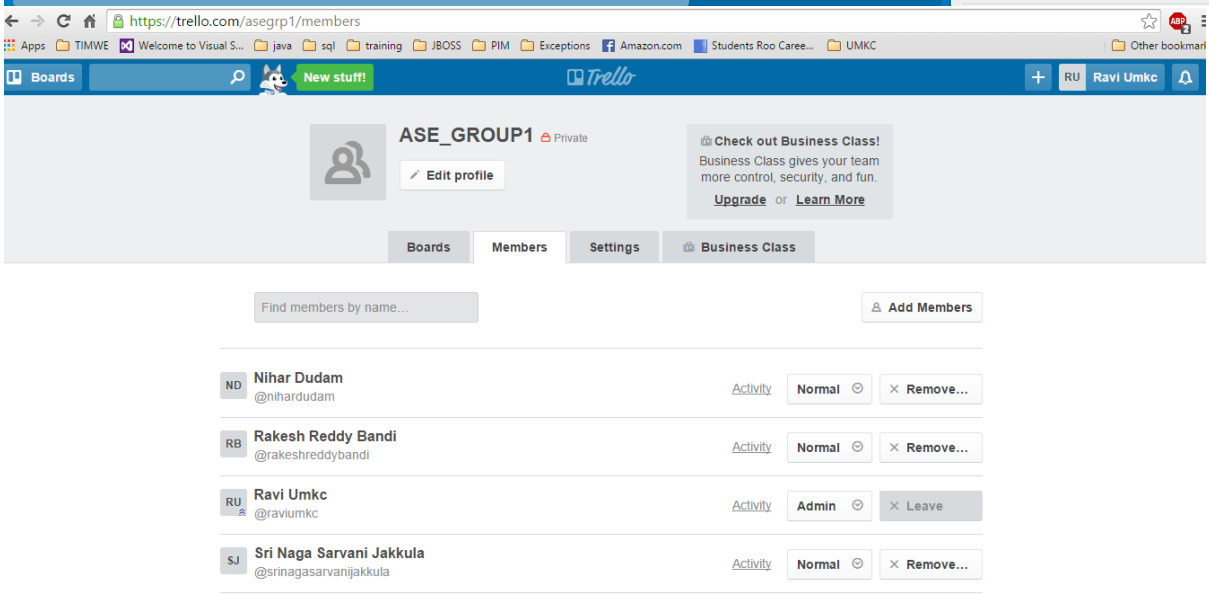
- Services utilized:
    1. Yahoo Messenger API
    2. Facebook Messenger API
    3. Google Talk/Hangouts API

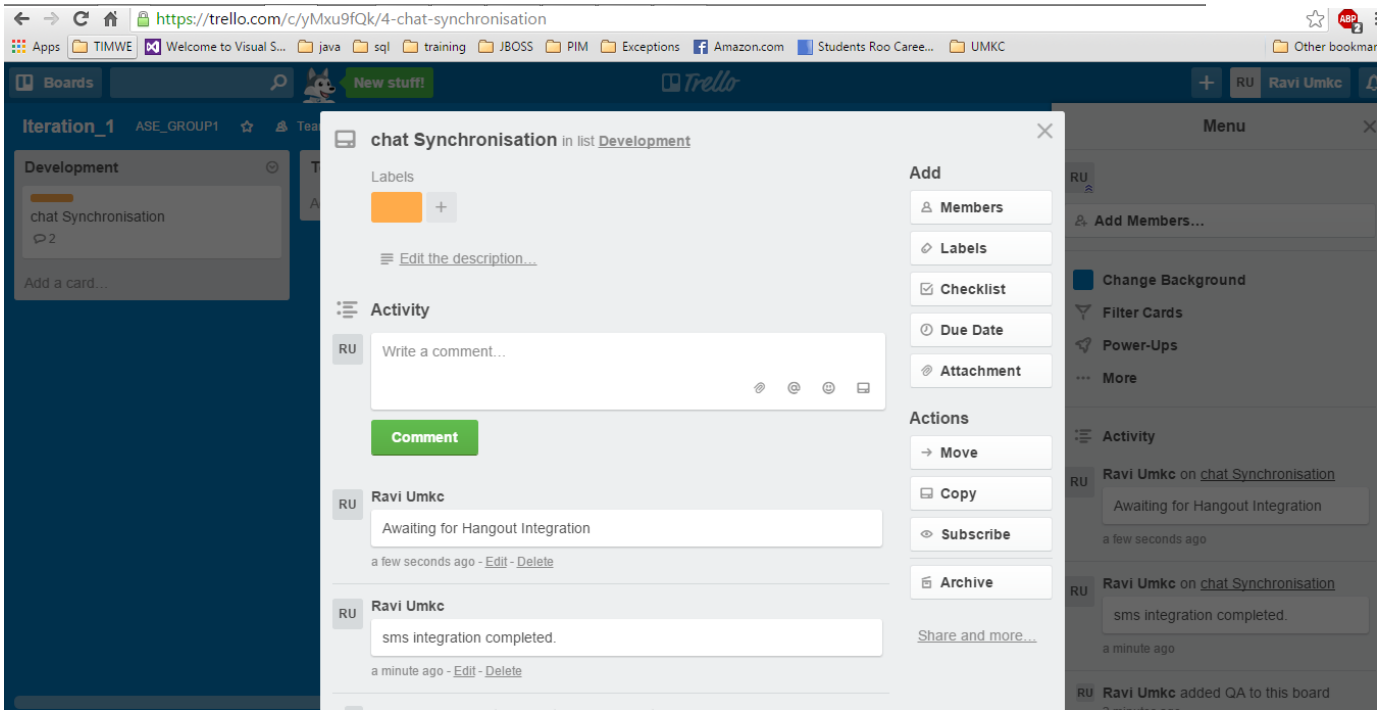
V. Project Plan

- Scheduling Four Iterations :

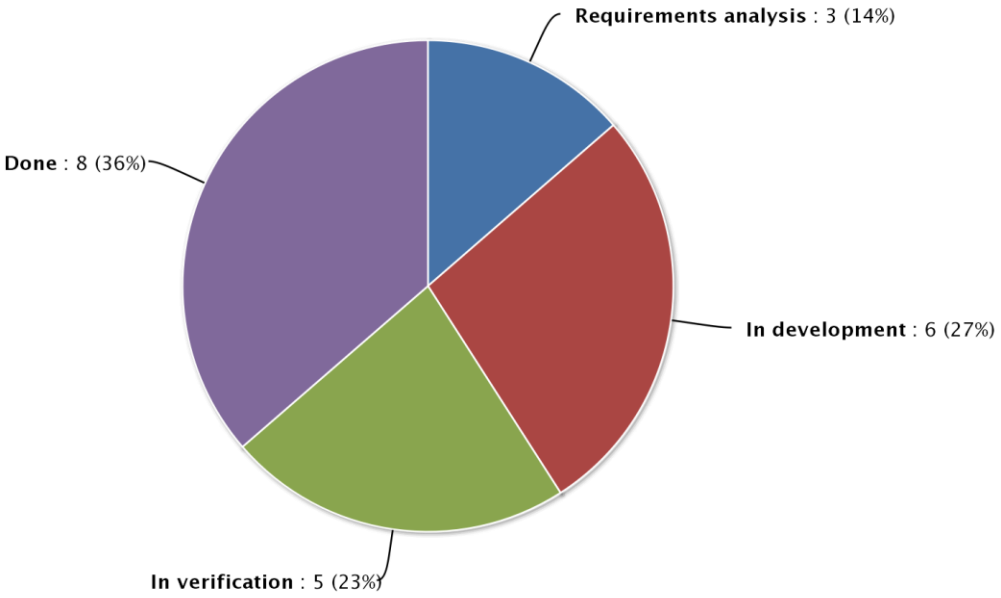



https://trello.com/b/gHJgxcA6/iteration-1
Boards
New stuff!
Trello
Ravi Umkc
Iteration_1
ASE_GROUP1
Team Visible
Development
chat Synchronisation
Add a card...
Test
Add a card...
completed
Project overiew
Deployment
UI Design
Add a card...
QA
Add a card...
Menu
Add Members...
Change Background
Filter Cards
Power-Ups
More
Activity
Ravi Umkc added QA to this board
a few seconds ago
Ravi Umkc added chat Synchronisation to Development 2 minutes ago
Ravi Umkc added UI Design to completed 3 minutes ago
Ravi Umkc added Deployment to completed 3 minutes ago


https://trello.com/asegrp1/members
Boards
New stuff!
Trello
Ravi Umkc
ASE_GROUP1
Private
Edit profile
Check out Business Class!
Business Class gives your team more control, security, and fun.
Upgrade or Learn More
Boards
Members
Settings
Business Class
Find members by name...
Add Members
Nihar Dudam
@niharudam
Activity
Normal
Remove...
Rakesh Reddy Bandi
@rakeshreddybandi
Activity
Normal
Remove...
Ravi Umkc
@raviumkc
Activity
Admin
Leave
Sri Naga Sarvani Jakkula
@srinagasarvanijakkula
Activity
Normal
Remove...

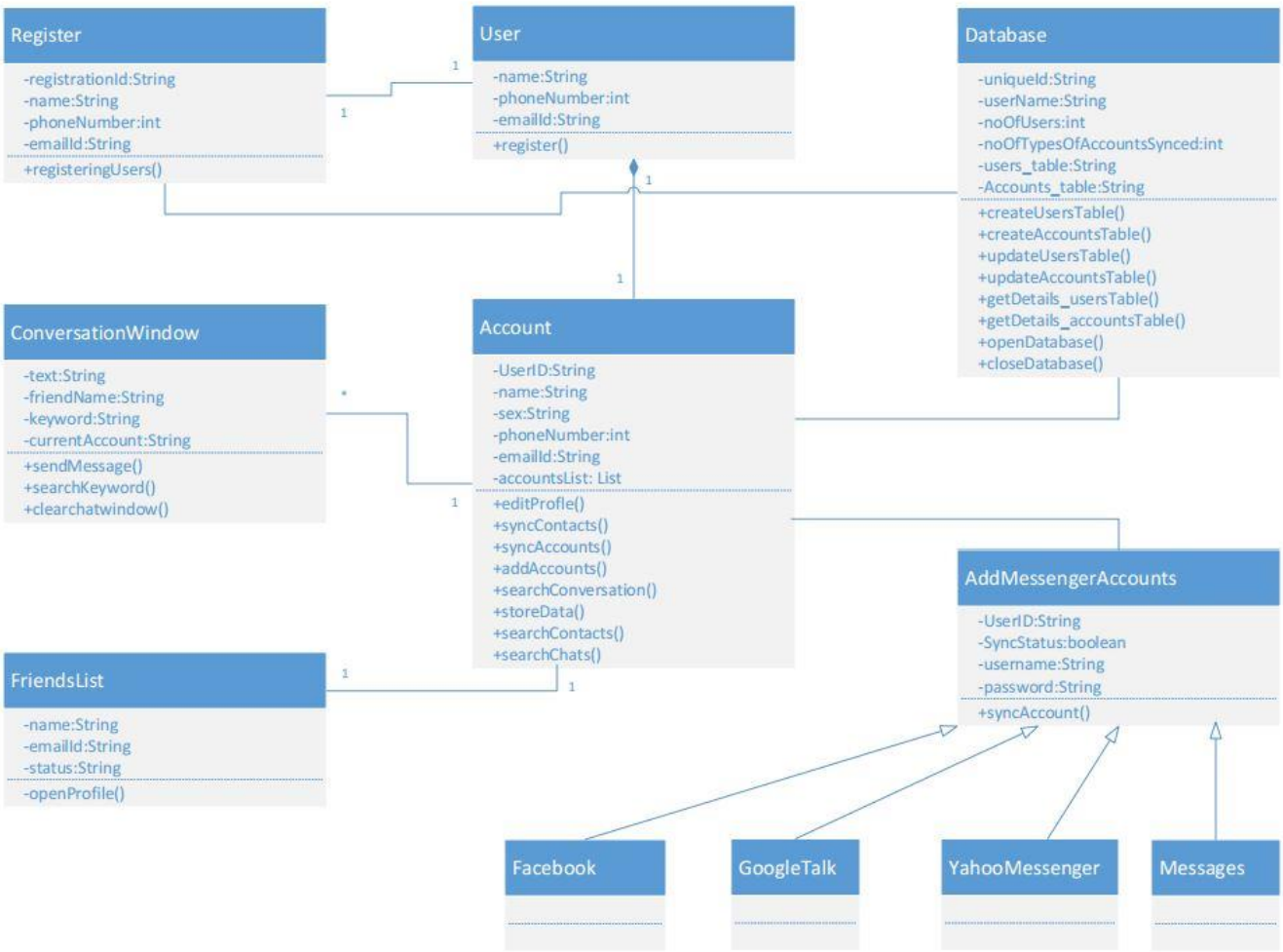

https://trello.com/c/yMxu9fQk/4-chat-synchronisation
Boards
New stuff!
Trello
Ravi Umkc
Iteration_1
ASE_GROUP1
Development
chat Synchronisation
2
Add a card...
chat Synchronisation in list Development
Labels
Edit the description...
Activity
Write a comment...
Comment
Ravi Umkc
Awaiting for Hangout Integration
a few seconds ago - Edit - Delete
Ravi Umkc
sms integration completed.
a minute ago - Edit - Delete
Add
Members
Labels
Checklist
Due Date
Attachment
Actions
Move
Copy
Subscribe
Archive
Share and more...
Menu
Add Members...
Change Background
Filter Cards
Power-Ups
More
Activity
Ravi Umkc on chat Synchronisation
Awaiting for Hangout Integration
a few seconds ago
Ravi Umkc on chat Synchronisation
sms integration completed.
a minute ago
Ravi Umkc added QA to this board

- Analysis of iterations:



VI. First Increment Report

1. UML Diagrams for Services:
    - Class Diagram:


Register
-registrationId:String
-name:String
-phoneNumber:int
-emailId:String
+registeringUsers()
User
-name:String
-phoneNumber:int
-emailId:String
+register()
Database
-uniqueId:String
-userName:String
-noOfUsers:int
-noOfTypesOfAccountsSynced:int
-users_table:String
-Accounts_table:String
+createUsersTable()
+createAccountsTable()
+updateUsersTable()
+updateAccountsTable()
+getDetails_usersTable()
+getDetails_accountsTable()
+openDatabase()
+closeDatabase()
ConversationWindow
-text:String
-friendName:String
-keyword:String
-currentAccount:String
+sendMessage()
+searchKeyword()
+clearchatwindow()
Account
-UserID:String
-name:String
-sex:String
-phoneNumber:int
-emailId:String
-accountsList: List
+editProfile()
+syncContacts()
+syncAccounts()
+addAccounts()
+searchConversation()
+storeData()
+searchContacts()
+searchChats()
AddMessengerAccounts
-UserID:String
-SyncStatus:boolean
-username:String
-password:String
+syncAccount()
FriendsList
-name:String
-emailId:String
-status:String
-openProfile()
Facebook
GoogleTalk
YahooMessenger
Messages
1
1
1
1
1
1
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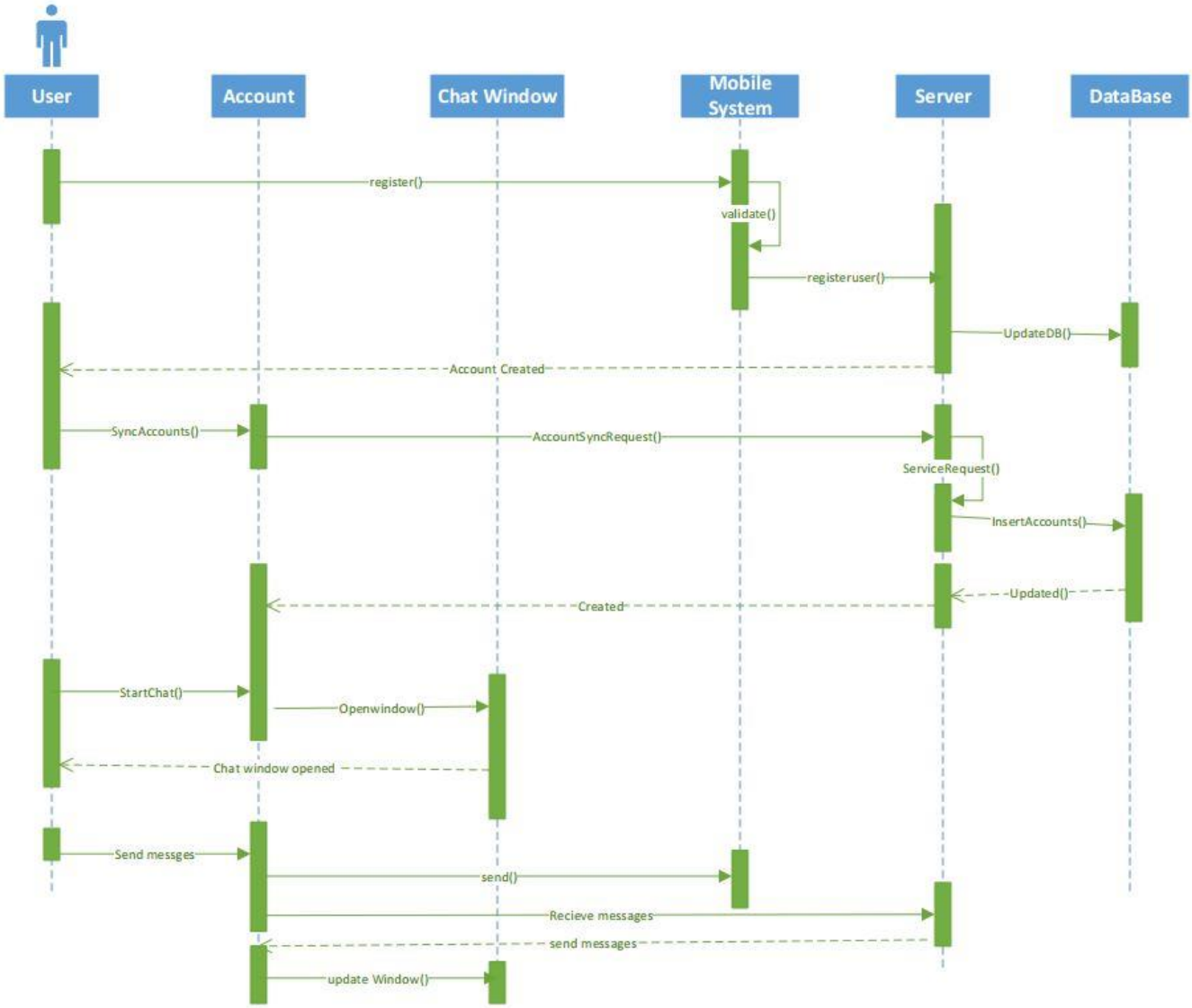
1
1

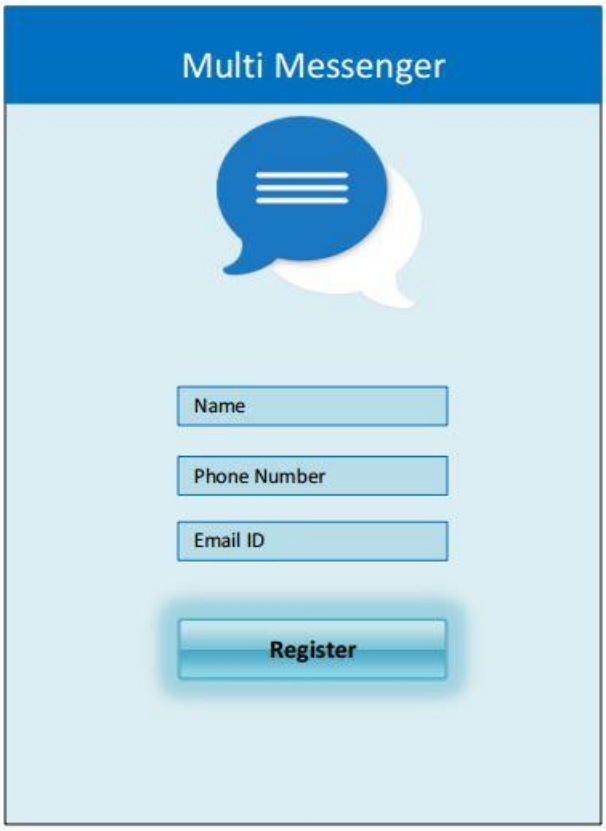
- **Sequence Diagram:**



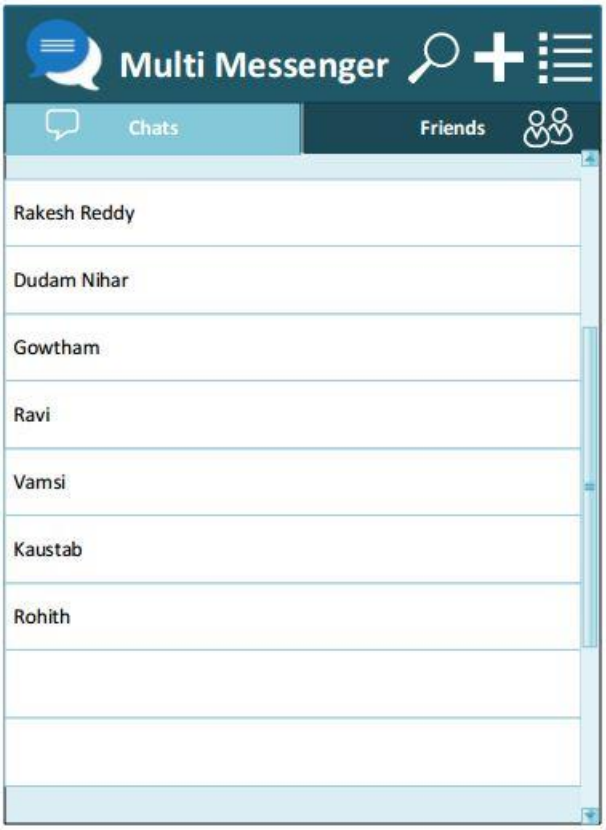
2. Design of Mobile Client:

- Wireframes:

1. Register Screen

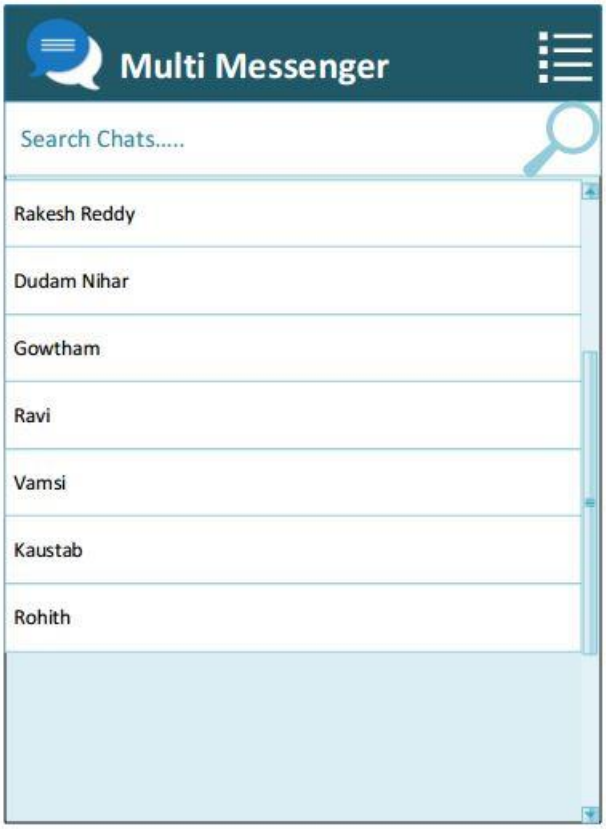


2. Dash Board Chat



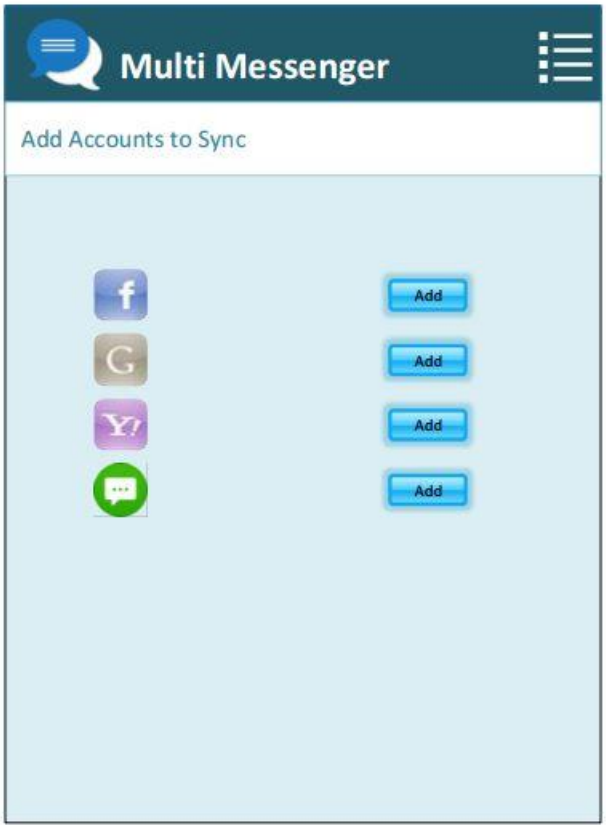
3.Dash Board Friends

4. Search Chats

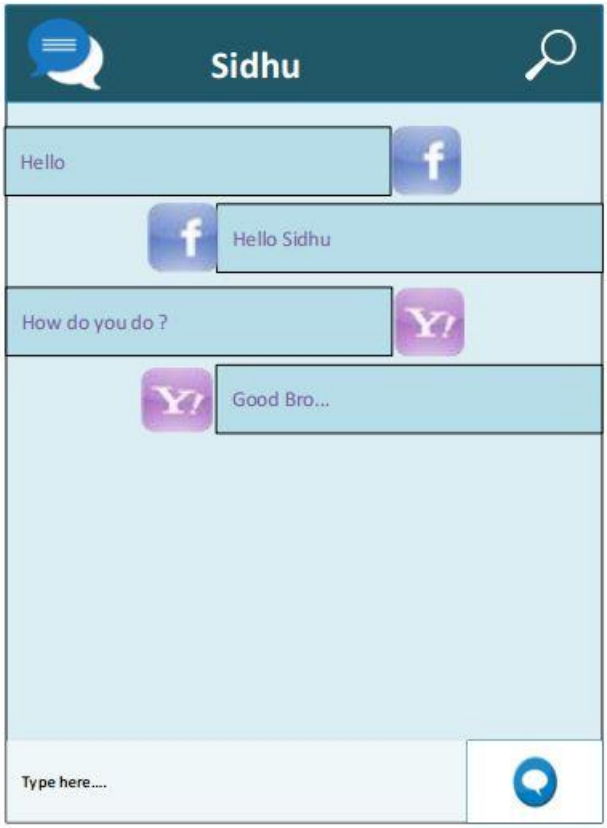


5. Search Friends:

6.Account Sync



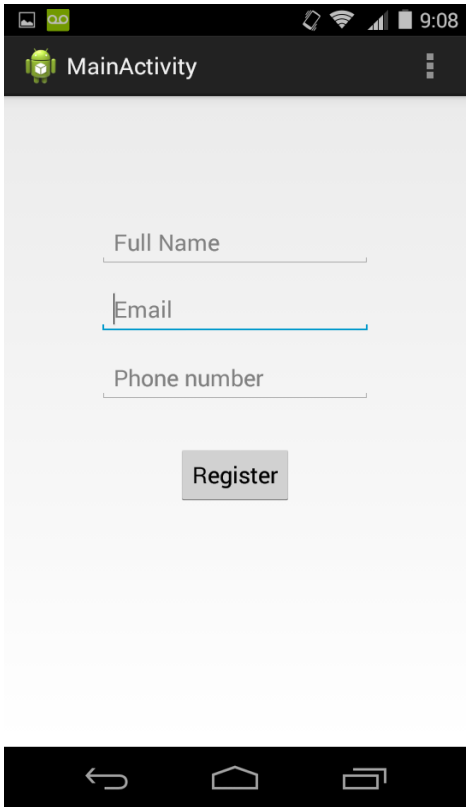
7.Chat Window



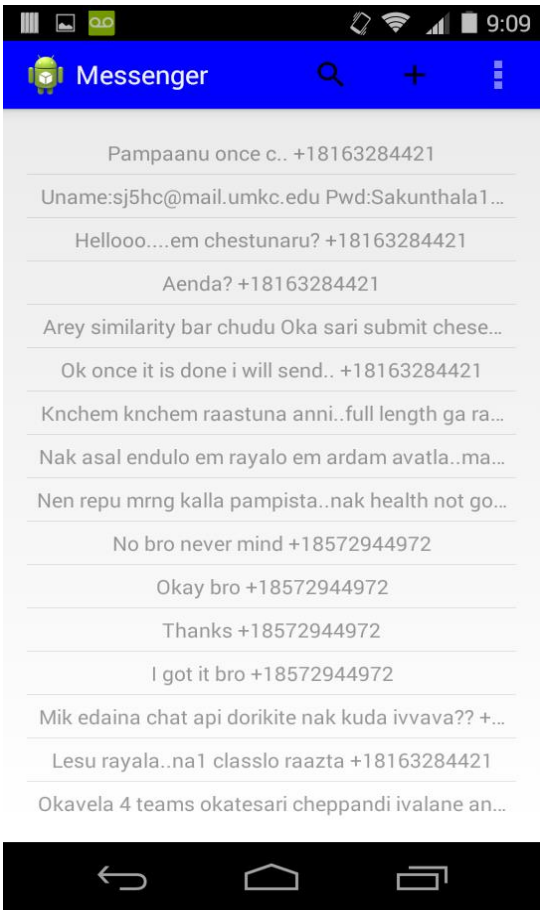
3. Screen Shots of First Increment :

- Home Screen

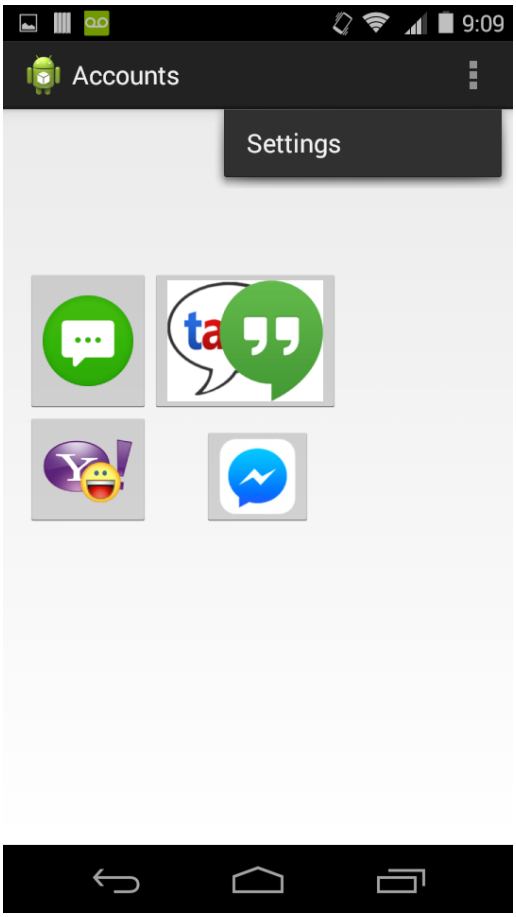
- Register Page



- Chat Window


9:09
Messenger
Pampaanu once c.. +18163284421
Uname:sj5hc@mail.umkc.edu Pwd:Sakunthala1...
Hellooo....em chestunaru? +18163284421
Aenda? +18163284421
Arey similarity bar chudu Oka sari submit chese...
Ok once it is done i will send.. +18163284421
Knchem knchem raastuna anni..full length ga ra...
Nak asal endulo em rayalo em ardam avatla..ma...
Nen repu mrng kalla pampista..nak health not go...
No bro never mind +18572944972
Okay bro +18572944972
Thanks +18572944972
I got it bro +18572944972
Mik edaina chat api dorikite nak kuda ivvava?? +...
Lesu rayala..na1 classlo raazta +18163284421
Okavela 4 teams okatesari cheppandi ivalane an...

- Account Sync



- Configure Phone Messages