

# CS4084 Project Spec

## Team:

I will be working alone for this project.

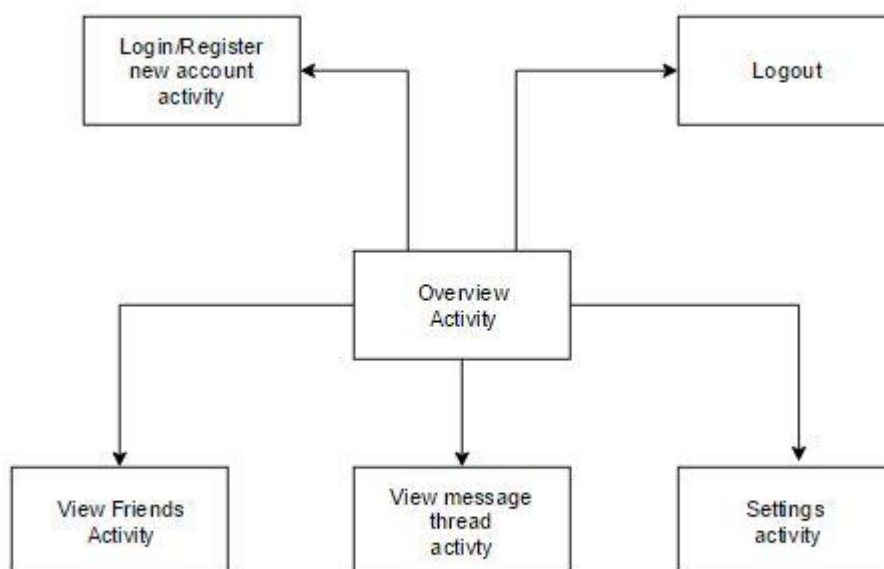
## Brief Overview:

My goal is to create a messaging app. Users will be able to register new accounts, and subsequently login to those accounts. Users will be able to add other users as “friends” and after which will be able to exchange messages with each other. Users will also be able to create group chats. Users will also be able to send each other images.

The app will use the “Volley” networking library to connect to a LAMP stack that I have set up on an Ubuntu 14.04 VPS (Digital Ocean).

All user details will be stored in a mysql server on the LAMP stack. PHP scripts stored on the Apache server will be used to interact with the database, with the Volley library providing a means to make HTTP POST requests (given that most of the previous networking support is now deprecated, volley seems to be the best option).

## Basic Flowchart:



**Login/Register new account activity:**

Users can either login to their account or register a new one in this activity. Once a user has logged in, their UserID is stored locally (possibly in a shared preference as a key-value pair). This UserID is then used to load all of the user's information from the database when needed.

**Overview Activity:**

This activity acts as the main hub for a user once logged in. When the app starts, this activity is launched. It checks the shared preference to see if the user is logged in, and if not, loads the Login Activity.

If the user is logged in, then this Activity displays all the user's current conversations (clickable), a button to view their friends, and a button to view their settings. Users can open message threads, and delete message threads from this activity.

**View Friends Activity:**

This activity displays all of a user's friends, as well as friend requests. Users can send and accept friend requests as well as remove friends and block users in this activity.

**View Message Thread Activity:**

In this activity, users can read through a specific message thread and send messages to the users within that conversation. Users can also delete a particular message in the thread in this activity, as well as scroll through all previous messages.

**Settings Activity:**

In this activity users can set their preferred settings for the app.

**Additional Functionality under consideration:**

I would like to implement a call feature, so that users can voice chat each other. I am not entirely sure if this is feasible:

I have briefly looked into the Session Initiation Protocol (SIP) which as far as I can tell is well supported with the android.net.sip library, which seems to provide decent support for VoIP. I am unsure if this will add too much work to the project though.