

ITIS/ITCS 5180 Mobile Application Development
Homework 07

Basic Instructions:

1. In every file submitted you **MUST** place the following comments:
 - a. Assignment #.
 - b. File Name.
 - c. Full name of all students in your group.
2. Each group should submit only one assignment. Only the group leader is supposed to submit the assignment on behalf of all the other group members.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will lose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Export your Android project and create a zip file which includes all the project folder and any required libraries.
6. Submission details:
 - a. Only a single group member is required to submit on Canvas for each group.
 - b. The file name is very important and should follow the following format:
Group#_HW06.zip
 - c. You should submit the assignment through Canvas: Submit the zip file.
7. **Failure to follow the above instructions will result in point deductions.**
8. **The required Android Virtual Device (AVD) should have minimum SDK version set to 20 and target SDK at 25.**

Homework 07 (100 points)

In this assignment, you will be developing a social networking app to communicate and share your post with friends and follow them. You will learn to use Firebase to manage app data.



Figure 1: App Screens

Part 1: Login and Sign Up Screens

The first screen of the app is a user authentication screen. Please follow the instructions:

1. The launcher screen should be set to the Login Screen (see figure 1 a). When the app first starts, the login screen should check if there is a current user session:
 1. If the user is already logged in to Firebase, then start the Home Screen and close the login Screen.
 2. If there is no current session, then the Login Screen should be used to provide user login.
2. The user should provide their first name, last name, email, date of birth, password and password confirmation. Clicking the “Sign Up” button should submit the user’s information to Firebase.
 1. Age should be greater than 13 and should have basic password validations.
 2. If the signup is successful, then display a Toast indicating the user has been created. Then take it back to the Login screen to Login.
3. User can also use Firebase google authentication to login.

Part 2: Home screen

This screen displays the posts of the user and his/her friends. Please follow the instructions:

1. Display the user’s and his/her friends’ posts from the last two days in a chronological order, latest being first. See figure 1 b.
2. Each post should contain the name of the user who posted it, the date and time of the post (Use Prettytime library to display time), and the text.
3. There is a InputText at the bottom of the screen to write a new post. Clicking on send icon should post the message and update the screen (see figure 1 c). Note that the post should have a character limit of 200 characters max.
4. There should be User name and friends icon just below the action bar. It can be implemented using a second action bar.
5. Clicking on User name should take the user to his profile screen and clicking on friends icon should take the user to manage friends screen.
6. Clicking on Name of any friend in a particular post should take you to his wall.

Part 3: User’s Wall screen

This screen contains the user’s posts. Please follow the instructions:

1. Display all of his/her posts in a chronological order, latest being first, see figure 1d.
2. The post's view should be similar to that explained in Part 2, except it should have a delete icon at the bottom right, and clicking on this icon should delete the post.
3. Prompt the user before deleting any post.
4. There should be an edit icon next to the name of the user in second action bar. Clicking on this should take you to edit profile screen.
5. User relevant design for profile screen. All the user details should be editable except email.

Part 4: Profile screen of a friend

This screen contains the posts of a particular friend. Please follow the instructions:

1. Display all posts of the friend in a chronological order, latest being first, see figure 1 e.

Part 4: Manage Friends screen

This screen is used to manage friends. Please follow the instructions:

1. There will be three tabs: Friends, Add New Friend, and Requests Pending. See figures 1 (f,g, and h).
2. In the Friends tab, display all the current friends of the user. Clicking on any friend should take you to his/her profile screen.
3. In Add New Friend tab, display all the users who are not in his friends, or pending lists. Clicking on add friend should send a friend request and tabs data should be refreshed.
4. In Pending Requests tab, you should display all the pending request sent and received. For Received request there will be accept and reject option. **For Sent requests** there will be a delete request option.
5. Clicking on Home icon in second action bar should take you to home screen.

Part 5: Miscellaneous

1. The App should have a **launch icon**. **The action bar also should have the same icon and app title.**
2. There is a log out icon in action bar. Clicking on this icon should erase user session and take you to login screen.
3. Data across the application should be synced and should be up to date with database.

Good Luck!