

ITIS/ITCS 4180/5180 Mobile Application Development
In Class Assignment 8

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. Please download the support files provided with this assignment and use them when implementing your project.
4. Export your Android project as follows:
 - a. From eclipse, choose "*Export...*" from the File menu.
 - b. From the Export window, choose *General* then *File System*. Click *Next*.
 - c. Make sure that your Android project for this assignment is selected. Make sure that all of its subfolders are also selected.
 - d. Choose the location you want to save the exported project directory to. For example, your *Desktop* or *Documents* folder.
 - e. When exporting make sure you select *Create directory structure for files*.
 - f. Click Finish, and then go to the directory you exported the project to. Make sure the exported directory contains all necessary files, such as the .java and resource files.
5. Submission details:
 - a. When you submit the assignment, compress your exported Android project into a single zip file. The format of compressed file name is InClassAssignment#.zip
 - b. You should submit the assignment through Moodle: Submit the zip file.
- 6. Failure to follow the above instructions will result in point deductions.**

In Class Assignment 8 (100 Points)

In this assignment you will make simple HTTP requests, parse the CNN RSS feed, and store your liked news items into a local SQLite database. The app is composed of 3 activities, namely **MainActivity**, **NewsActivity** and **PreviewActivity**.

Notes:

1. The recommended Android Virtual Device (AVD) should have minimum SDK version set to 11 and target SDK at least 17. The app should display correctly on 3.2" QVGA (ADP2) (320x480: mdpi).

API Description

- The API used in this assignment is the CNN Technology News RSS API. The URL to the api is http://rss.cnn.com/rss/cnn_tech.rss

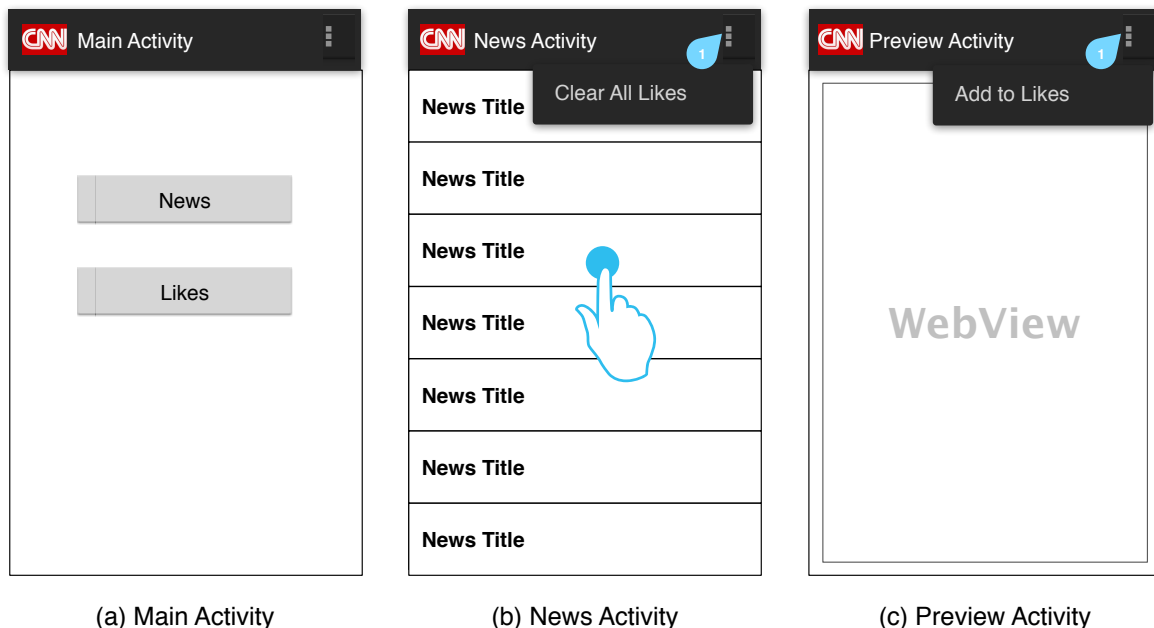


Figure 1, Application User Interface

Part 1 (0 Points): Main Activity

The interface should be created to match the user interface (UI) presented in Figure1(a). You will be using layout files, and strings.xml to create the user interface. The implementation requirements include:

1. Tapping the “News” or “Likes” button should start the News Activity, and should pass the News Activity a flag to indicate which button was pressed.

Part 2 (60 Points): News Activity

The interface should be created to match the user interface (UI) presented in Figure1(b). You will be using layout files, and strings.xml to create the user interface. The News Activity is responsible for loading the news items either from the CNN RSS feed or from the likes stored in the local SQLite database. The implementation

requirements include:

1. When loading the news items from the CNN RSS feed use a thread pool (or AsyncTask) to communicate with the api and to parse the generate result. Do not use the main threads to download the api results.
2. The news information should be displayed in a ListView, see Figure 1(b). You should setup the ListView and the required adapter.
3. Tapping on a list item for a specific app item should setup the required intent to start the **Preview Activity** and to pass it the selected news information.
4. When the user clicks the menu button or taps on the options menu, it should display “Clear All Likes” option, if the “Clear All Likes” is selected it should delete all the likes from the SQLite database and should refresh this change on the ListView (if in Likes mode).
5. Tapping on the device’s back button should finish this activity.

Part 3 (40 Points): PreviewActivity

This activity should receive the news information from the News Activity. The activity should display the news URL in an embedded WebView as indicated in Figure 1(c). The implementation requirements include:

1. The news URL should be displayed in the WebView, which is a simple component that is able to display a webpage in the hosting activity.
2. When the user clicks the menu button or taps on the options menu, it should display “Add to Likes” option, if the “Add to Likes” is selected then the displayed news item should be added to the SQLite database.