

ITIS/ITCS 4180/5180 Mobile Application Development
In Class Assignment 5

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 5 (100 Points)

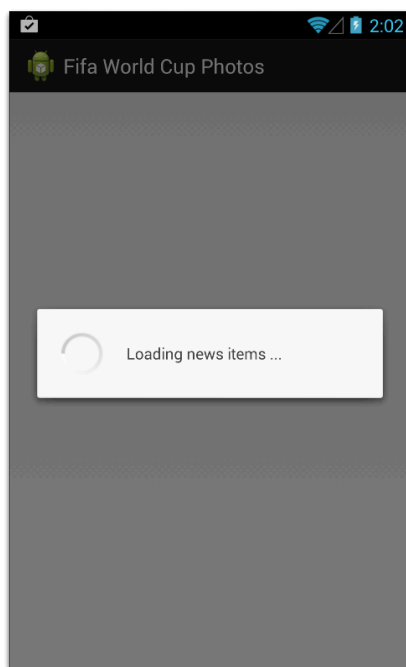
In this assignment you will make simple HTTP requests and will parse XML data. The Fifa RSS Feed will be used to retrieve the latest photos RSS feed provided by Fifa. The app will retrieve the list of latest photos using the Fifa RSS api provided. The app is composed of 2 activities, namely **MainActivity**, and **PhotoActivity**.

Important App Requirements:

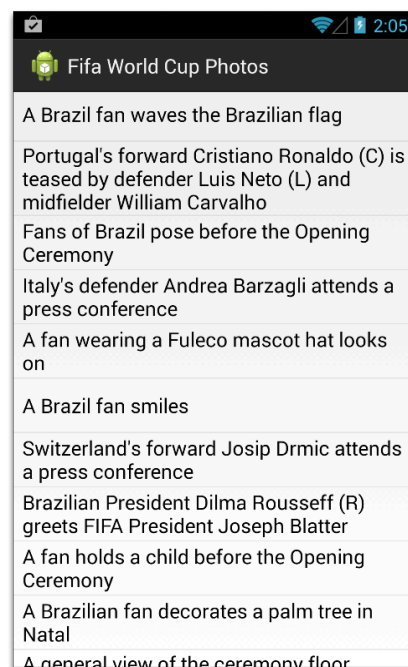
1. The required Android Virtual Device (AVD) should have **minimum SDK version set to 14 and target SDK at least 17**. The app should display correctly on 3.2" QVGA (ADP2) (320x480: mdpi). Your assignment will not be graded if it does not meet these requirements, and you will not be granted any points on your submission.

API Description

- The api used for this assignment is the Fifa Latest Photos RSS api. Use the following api: <http://www.fifa.com/newscentre/photo/rss.xml>



(a) Progress Dialog showing "Loading new items"



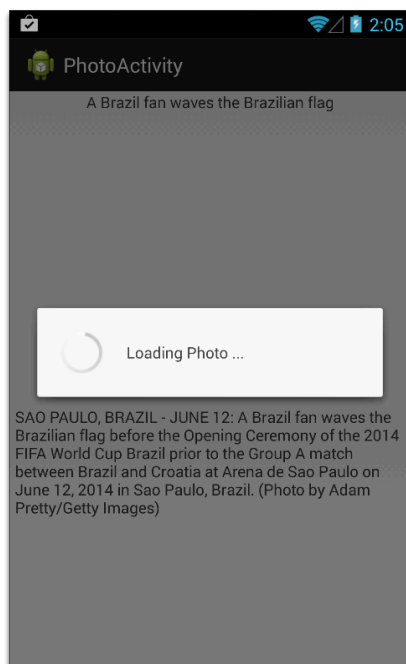
(b) ListView showing the titles of the different news items.

Figure 1, Main Activity

Part 1 (80 Points): MainActivity

The interface should be created to match the user interface (UI) presented in Figure 1. You will be using layout files, and strings.xml to create the user interface. The **MainActivity** is responsible for the loading the news items from the provided Fifa api. The implementation requirements include:

1. Use a thread pool (or AsyncTask) to communicate with the Fifa RSS feed api and to parse and generate result. Do not use the main threads to download the api or to parse results. When parsing the retrieved XML you are required to retrieve for each news item the following information from the following XML tags:
 - a. **title**: contains the news item title.
 - b. **media:content**: contains the url of the news item photo.
 - c. **media:description**: contains the news item short description.
2. The AsyncTask or Runnable should not be included as an inner class in the MainActivity. It should be created as a separate file. Do not use static variables to enable the communication between the activity and the AsyncTask or Runnable.
3. A progress dialog should be displayed during the retrieval of the news items and dismissed when the news items are displayed.
4. The retrieved news item titles should be displayed in a ListView, see Figure1(a). You should setup the ListView and the required adapter.
5. Tapping on a list item for a specific news item title should setup the required intent to start the **PhotoActivity** and to pass it the news item object in an intent. Do not use a static variable to share data between activities.
6. Tapping on the device's back button should finish this activity.



(a) Progress dialog during photo download



(b) Displayed photo

Figure 2. Photos Activity

Part 2 (20 Points): PhotoActivity

This activity should display the news item details, which includes the title, photo, and description. The PhotoActivity should receive the movie information from the MainActivity. Figure 2 shows the PhotoActivity. The implementation requirements include:

1. Use a thread pool (or AsyncTask) to retrieve the photo based on the receive news item url. Do not use the main threads to download the photo.
2. The AsyncTask or Runnable should not be included as an inner class in the PhotoActivity. It should be created as a separate file. Do not use static variables to enable the communication between the activity and the AsyncTask or Runnable.
3. A progress dialog should be displayed during the retrieval of the photo and dismissed when the photo is displayed.