

ITIS/ITCS 4180/5180 Mobile Application Development  
In Class Assignment 3

**Basic Instructions:**

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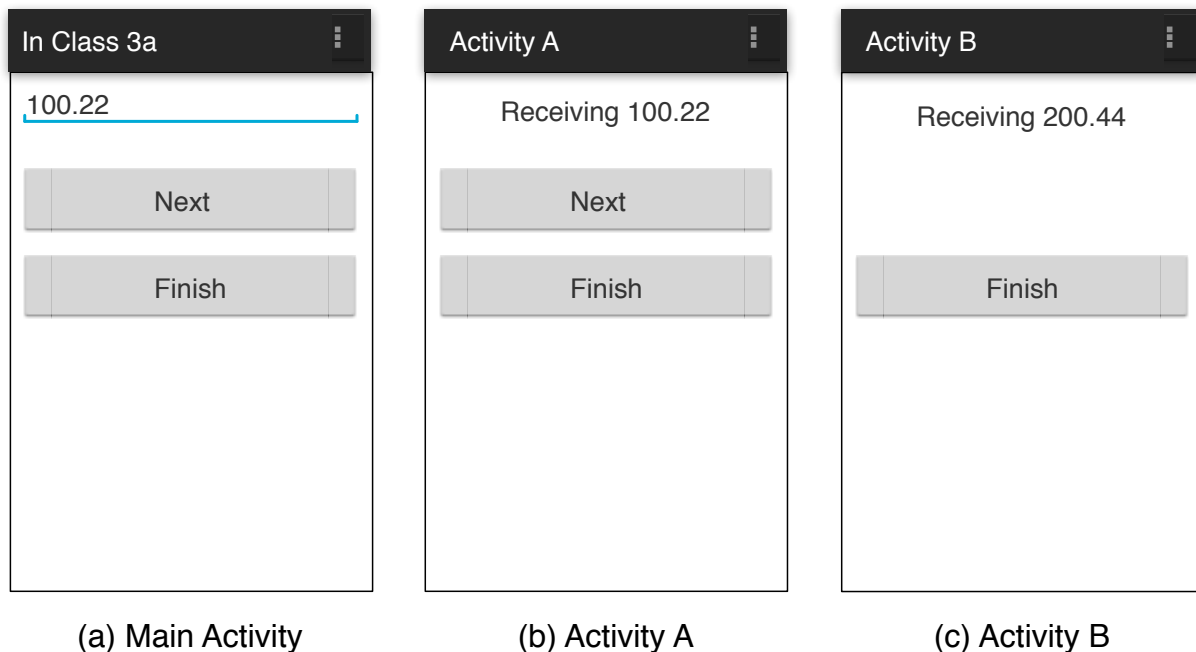
1. In every file submitted you **MUST** place the following comments:
  - a. Assignment #.
  - b. File Name.
  - c. Full name of all students in your group.
2. Each group should submit only one assignment. Only the group leader is supposed to submit the assignment on behalf of all the other group members.
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 3 (100 Points)**

In this assignment you will build your first Android application. You will get familiar with common Android components and how to interact with them. You will build a single activity Tip Calculator application.

#### **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).



**Figure 1, Application User Interface (Part 1)**

#### **Part 1 (100 Points): Using Simple Intents**

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 layout XML file can be modified through the raw xml, or through the GUI tools provided within eclipse. To build the UI, please follow the following tasks:

1. Create a new android project called "In Class 3a".
2. The string values used for the button labels should be read from the strings.xml file and should not be hardcoded in the layout file.
3. In the Main Activity, the user should be able to enter a number in the EditText. Upon tapping on the "Next" button, an intent should be created and the number entered in the EditText should be sent to Activity A. The Main Activity should be finished if the "Finish" button is tapped. See Figure 1(a). Create the correct checks to make sure the user enters a correct number in the EditText.
4. Activity A, should retrieve the number sent from the Main Activity. The retrieved

number should be presented in the TextView in Activity A. If the “Next” button is tapped, an intent to open Activity B should be created, and the number retrieved from the Main Activity should be multiplied by 2 and added to the intent to be sent to Activity B. The Activity A should be finished if the “Finish” button is tapped. See Figure 1(b).

5. Activity B, should retrieve the number sent from Activity A. The retrieved number should be presented in the TextView in Activity B. The Activity B should be finished if the “Finish” button is tapped. See Figure 1(c).