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 get familiar with intents and how to pass data between multiple activities. You are required to develop an "Employee registration form" application that enables a new employee to enter and edit their information.

Important App Requirements:

1. Create a new android project called "In Class 3".
2. 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.
3. You will be using layout files, and strings.xml to create the required user interfaces. The layout XML file can be modified through the raw xml, or through the GUI tools provided within eclipse.

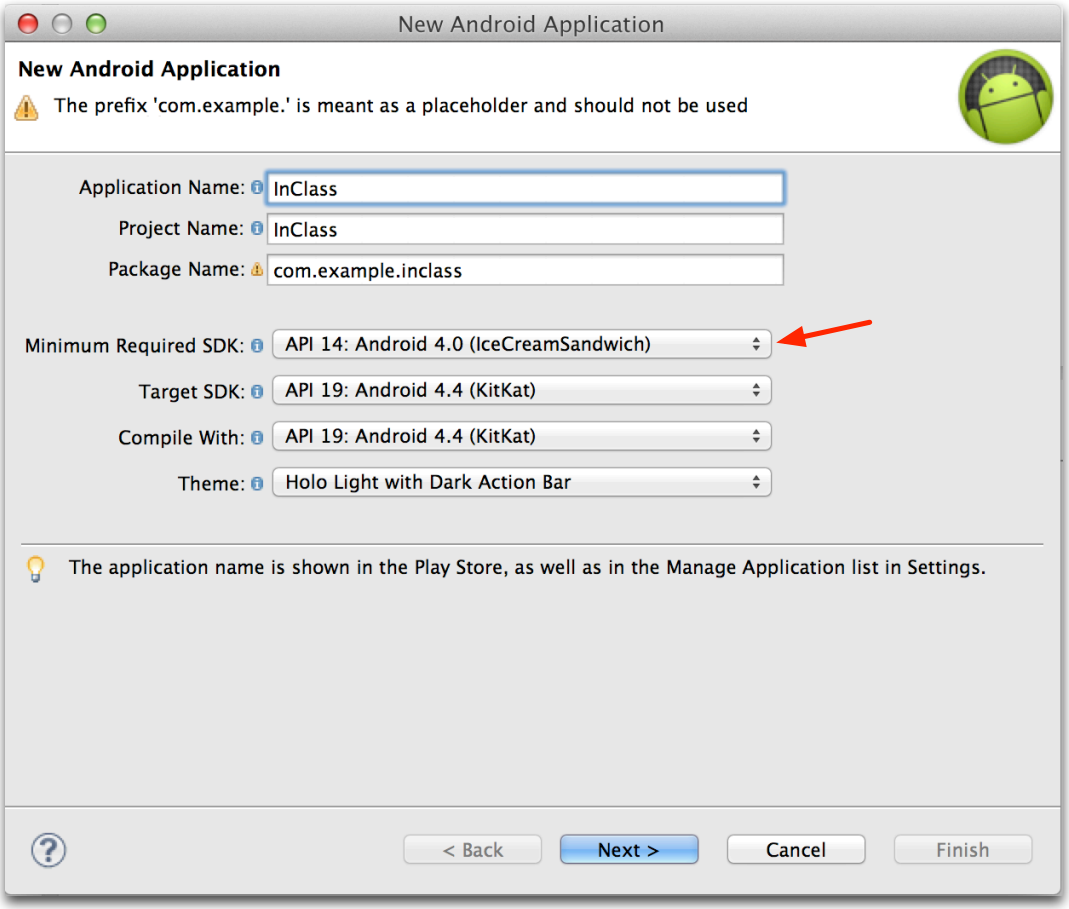


Fig 1. Choosing Minimum Required SDK to 14

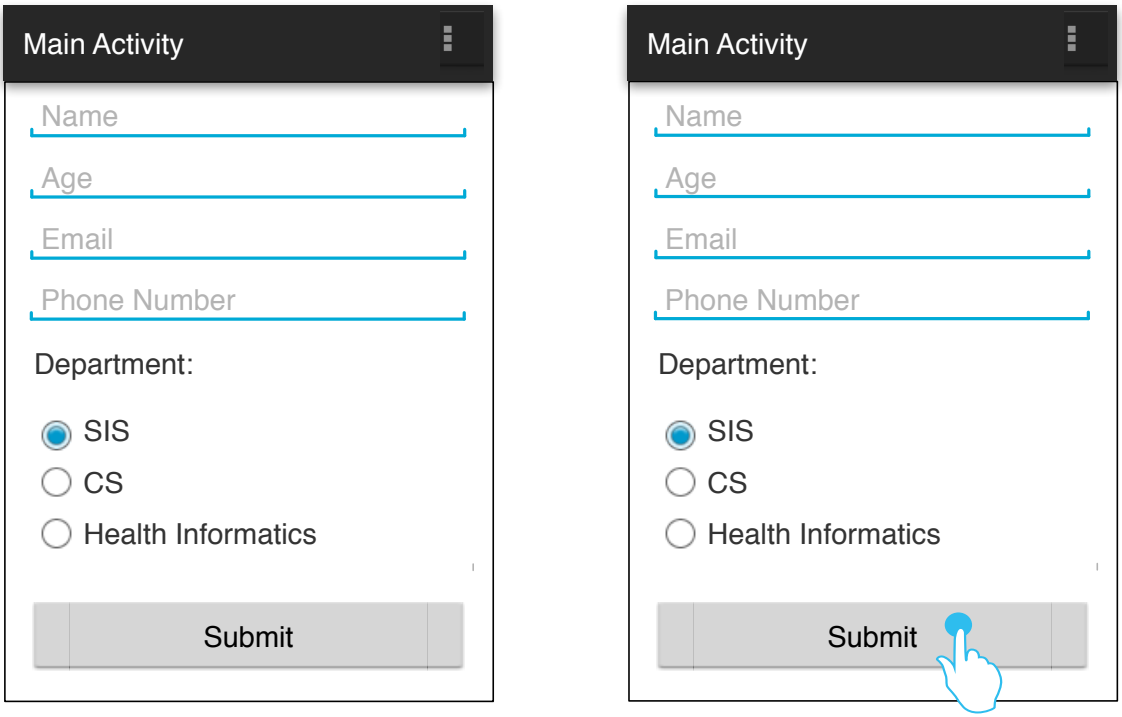
Figure 1, Application User Interface (Part 1)

This assignment is composed of three activities namely: Main Activity, Display Activity and sEdit Activity.

Part 1 (30 Points): Main Activity

This is the main launching activity where the user enters their information. The interface should be created to match the user interface (UI) presented in Figure 2. To build the UI, please follow the following tasks:

1. Use EditText for name, age, phone number, and email address. Radio buttons for department and Button for the submit button.
2. Create an Employee Class consisting of five string variables: name, age, phone number, email address, and department. The Employee Class should implement the Serializable interface.
3. Upon clicking the submit button, the information should be retrieved from the form and populated in an Employee object. If there are any missing entries, the user should be alerted by displaying a Toast message. If all the entered information is complete, create an ***explicit intent***, start the Display Activity and pass it the Employee object as part of the ***extras***.



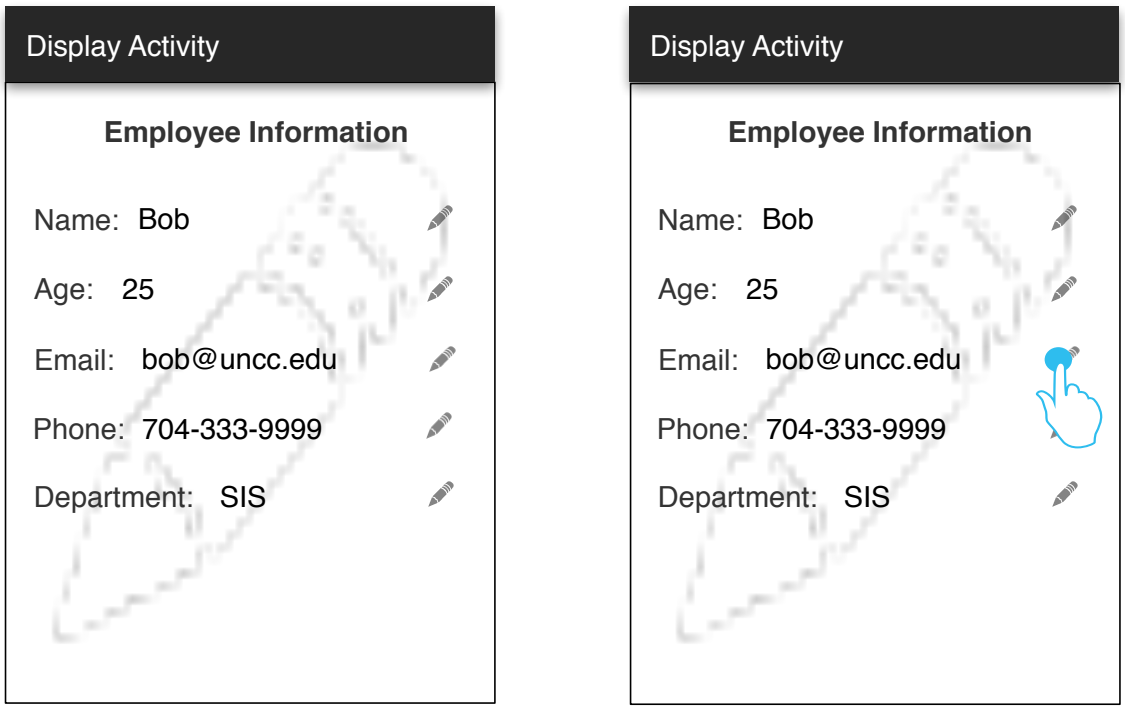
(a) Main Activity (b) Clicking Submit button

Figure 2, Main Activity

Part 2 (40 Points): Display Activity

This activity displays the employee information entered in the Main Activity and allows the user to select which information item to edit. The interface should be created to match the user interface (UI) presented in Figure 3. To build the UI, please follow the following tasks:

1. This activity is started by the Main Activity. When the Display Activity is created it should retrieve the Employee object sent from the Main Activity in the intent's extras.
2. Display the employee information as shown in Figure 3(a). Note that beside each displayed item there is an edit icon (ImageView). Clicking the edit icon beside an information item should start the Edit Activity (See Figure 3(b)). You are provided with the edit icon image. Perform the following requirements:
   a. The Edit Activity should be started using an ***implicit intent***. Send all the required information to the Edit Activity using ***extras***.
   b. The Edit Activity should be ***started for result***, as it is expected to send back the edited information to the Display Activity. Upon receiving a result from the Edit Activity, the Display Activity should update the displayed employee information to reflect the edited information.



(a) Display Activity (b) Clickable edit icon

Figure 3, Display Activity

Part 3 (30 Points): Edit Activity

This activity enables the user to edit the information item selected in the Display Activity and should send back the updated information to the Display Activity. The interface should be created to match the user interface (UI) presented in Figure 4. To build the UI, please follow the following tasks:

1. This activity is started by the Display Activity. When the Edit Activity is created it should retrieve the information sent from the Display Activity and display the required interface based on the sent information.
2. If the information to be edited is the name, age, email, or phone number, the Edit Activity should display an EditText displaying the current information value and a label indicating the information type. Figure 4, shows the application expected flow, as the user clicks the email edit icon in the Display Activity it starts the Edit Activity which displays Email label and and EditText populated with the current email (bob@uncc.edu). The user is able to edit the email information, and then presses the save button, which sends the result to the Display activity and finishes the Edit Activity. The Display activity updates the displayed information to reflect the change in email address.
3. Similarly if the department information is the selected information to be edited, then the Edit Activity displays a radio group and follows the same flow described for the other information items.

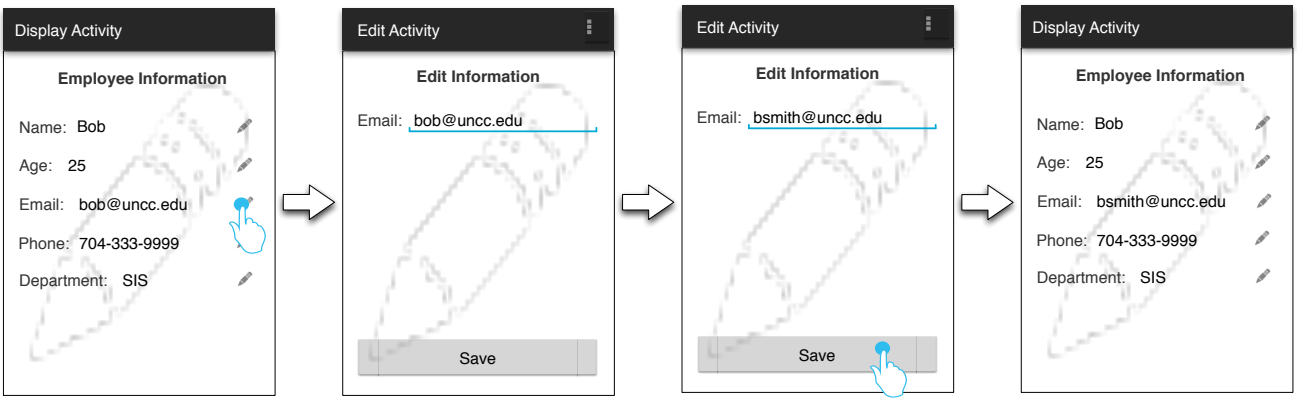


Figure 4, Editing the email.

Figure 5, Editing the department.