Lab Assignment #2

Due Date: Mid-night (11.59 pm) – Sunday ***Week 5*** **Marks/Weightage: 30/10%**

Purpose: The purpose of this lab assignment is to:

- Use Android UI controls to develop an interactive mobile application

References: Textbook, ppt slides, class examples, and Android tutorials (**http://developer.android.com/training/basics/firstapp/creating-project.html**). This material provides the necessary information that you need to complete the exercises.

Be sure to read the following general instructions carefully:

- This assignment must be completed individually by all the students.
- You will have to **demonstrate your solution in a scheduled lab session** and upload the solution on eCentennial through the **assignment link under Assessments**.

Android Workspace/Project Naming rules:

You must name your Android Studio workspace and project according to the following rule: **yourfullname_COMP304SectionNumber_Labnumber_ExerciseNumber**.

Example: **JohnSmith_COMP304Sec001_Lab2_Ex1**

Submission rules:

Submit your projects as **zip files** that are named according to the following rule: **yourfullname_COMP304SectionNumber_Labnumber_ExerciseNumber.zip**

Example: **JohnSmith_COMP304Sec001_Lab2_Ex1.zip**

Use Android Studio Export to zip feature to zip your projects.

Exercise 01:

LeaseOrRentHome Inc. helps its clients to find the best option for a home. Your team is assigned to develop an Android application based on the following specifications:

a) The **main screen** will display the company logo and a button "**Enter**". ***[2 marks]***

b) The **second screen** allows the potential customer to choose the **home types**: ***[6 marks]***
- apartment
- detached home
- semi-detached home
- condominium
- town house

Use **an options Menu control** to implement the selection of home types. Display a user-friendly screen with available **homes** whenever the user selects a home type from the menu. For example, if the user selects apartment home type, the next screen will display the available apartments (address, rent price, and image).
Use **check boxes** to select the apartments that you want to visit (virtually or physically).

The user may use the **menu control** to choose another home type, and so on.

c) The check-out screen displays the selected homes and corresponding addresses, and prices. Use a radio group for listing selected homes. The user can now choose the home (assuming has visited all selected homes). ***[6 marks]***

d) The next screen prompts the user with **payment option** (cash, credit card, debit card). Use a group of **radio buttons** to select the payment method. ***[6 marks]***

e) The **last screen** asks the user to enter credit/debit card information if the user chooses either of these payment methods. Use *EditText* controls and other GUI elements to allow the user to enter **customer' information:** *full name*, *credit/debit card number*. The rest of the fields will be **different for each student**. For example, you may create fields for *favorite sport*, *favorite team*, *favorite food*, etc. Create 2-3 fields named as mentioned above. Provide **validation** for these entries using the proper attributes/methods/constructor for each GUI control. ***[6 marks]***

f) Use **Application preferences** for storing user selections as the user navigates through the various screens of the application. ***[2 marks]***

Use *TextView* objects to display information as needed. Use styles and themes to create a nice look and feel of your app. Use drawable objects to display the logo for the company, home types, homes, etc.

Evaluation:

Activities: Main activity, Home types menu, activities (one for each home type), check-out activity, payment activity, final order information activity (all working, proper naming of activities, variables, and methods. Provide comments). Provide an explanation when asked during the demonstration of the app.	**50%**
Event Handling (proper event handlers)	**25%**
UI friendliness (proper layout, controls, styles, and themes)	**15%**
Declaring resources in proper resource files	**5%**
Innovative features/ effective way of coding	**5%**
Total	**100%**