

# **CSCI 412 - Mobile Device Programming**

## **Assignment 3**

### **Total Points: 24 (6% of the total grade)**

#### **Introduction**

The purpose of this assignment is to create an application that will support menus and SQLite to handle persistent data. Feel free to use any number/types of layouts and widgets. However, you have to use the MVC architecture.

The lessons you learnt from chapter 5 should be enough to complete this assignment. In fact, this assignment is borrowed from the exercise section of chapter 5.

The source codes of the examples shown in the book are available on the book website (<http://www.jblearning.com/catalog/9781284092127/>). Please look at the "Sample Materials" section of that site.

#### **Coding Style**

Readable, user-friendly, editable, logical, and correct. Here is a guideline to follow:

<https://source.android.com/source/code-style.html>

#### **App Creation Steps:**

##### **Create a New Project**

- Create a new android project
- Application Name: CSCI412-Assignment3
- Package Name: edu.wwu.csci412.a3
- Minimum SDK: API 15: Android 4.0.3

##### **What to achieve**

- Write an app similar to app shown in chapter 5 to manage a group of friends; a friend is defined as having a first name, a last name, and an email address. The friends should be stored in a database: a friend can be added or deleted.
- On the first screen, provide a search engine where the user enters an email; the app searches the database and returns the corresponding first name and last name if the email exists. If the email doesn't exist, show an appropriate message.
- Include an autocomplete feature for the search engine text field: as the user types, a dropdown list suggests possible matching emails retrieved from the database. You may look at the `AutoCompleteTextView` to implement this feature.

## Point Distribution

Grading Criteria	Details	Points
Correct output for all screens	First screen: Show a list of menus in the action bar	1
	Transition between first screen to other two screens (add, delete)	1
	2 <sup>nd</sup> screen: A friend can be correctly added to the database	2
	3 <sup>rd</sup> screen: A friend can be correctly deleted from the database	2
Search Engine		8
autocomplete feature		8
Coding Standard	Did the student follow coding standard?	1
Report	The completeness of the write-up including the correct filename format	1

**Submission Instructions:** You have to submit three separate files on Canvas.

1. Your entire project in zip format (Filename format: **YourLastName-Assignment3.zip**)
2. Your .apk file (Filename format: **YourLastName-Assignment3.apk**)
3. A pdf file with the following write up:
  - Your name
  - One screenshot for each activity (screen) with a very brief description
  - The approximate amount of time it took you to do the assignment.
  - Comments on how hard or easy you thought this assignment was.
  - Is there any aspect of your program not working? Please explain in detail. You may lose additional points if we identify any such aspect but you did not mention it explicitly in your write-up.
  - What was your biggest problem in doing this assignment?
  - What is your expected score for this assignment? Use the point distribution table for this purpose.

Grading Criteria	Details	Points Possible	Expected Score
Correct output for all screens	First screen: Show a list of menus in the action bar	1	
	Transition between first screen to other two screens (add, delete)	1	
	2 <sup>nd</sup> screen: A friend can be correctly added to the database	2	
	3 <sup>rd</sup> screen: A friend can be correctly deleted from the database	2	
Search Engine		8	
autocomplete feature		8	
Coding Standard	Did the student follow coding standard?	1	
Report	The completeness of the write-up including the correct filename format	1	
<b>Total Score</b>		<b>24</b>	

- Filename format: **YourLastName-Assignment3.pdf**