**CS6326.001 User Interface Design**

**Fall 2017**

**Assignment 4 – Android App**

Designing for mobile is different from designing for a large-screen PC. With that in mind, write a miniature contact manager. It should have only the following fields:

1. First Name
2. Last Name
3. Phone Number
4. E-mail address

When the program comes up, you should see a list of contacts. That list should show the first and last name combined and the phone number, and be sorted by first name. You should be able to scroll through the list. There should be nothing else visible on the screen except your action bar.

An **add** button on the action bar will bring up a separate screen (Android activity) to add a new contact. When you finish adding and save, the new contact should be in the list. The Save button can be either on the entry screen or on the action bar, your choice. This screen disappears when you save and the list shows again.

Touching a contact brings up the details. With the fields visible, you can either **modify** or **delete** the contact. You can do this either with buttons on the details screen or with action bar buttons.

There must be only one activity for showing the details. This is used for both adding a new contact and for modification and deletion.

The **Save** button described above should save contact information, either by updating a contact you selected from the list or creating a new one, depending upon program mode. Once you save information, the detail screen disappears. You should also be able to return to the main (list) screen without saving. The list screen should be updated with the new information.

If you delete a contact, the list screen should reflect the item you removed.

All fields except the first name are optional. Don’t do validity checking on anything. There is no duplicate checking.

Contacts are stored in a tab-delimited text file, not in a SQLite database.

Apply both Android design principles and the various things we have learned about design so far in the course.

You may work in groups of 2 so that someone in your group has an Android device. You can do this with the emulator, but it is not easy. The names and NetIDs of both team members must be in all source files. (If you are working alone, your name and NetID must be in all source files.) Since both team members will be required to write code, the person who writes a given function must put his or her name in it. You will lose one point for each function that does not have someone’s name in the comments. Both team members will receive the same grade for this assignment unless they both agree in writing that one should get a different grade. If a team member’s name appears in less than 25% of the functions, this may also be grounds for getting a different grade.

**To hand in:** You will be required to show the application on your device to the TA and/or the instructor. You will also be required to hand in your entire Android Studio project through eLearning. If you are working with someone else, **only one team member should hand in the program.**

**Grading criteria:**

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| --- | --- |
| Meets the above requirements | 60 |
| Object-oriented design | 30 |
| Internal program comments. Here is a link to what I consider to be good comments: http://utdallas.edu/~John.Cole/Documentation.htm | 10 |