

A290/A590
Tools for Computing
Android Application Design and Programming

Homework Project 2

DUE Tuesday, February 7, 2017 by 11:59.00.00pm (SHARP)

**Submit 1 “combined” ZIPPED file, “Project2.zip,” with each project in its own folder within the ZIP, OR
2 ZIPPED files, MyFirstActivity.zip and MyFirstDialog.zip, of each entire Project Folder to
your Canvas “Homework Project 2” Assignment in the “Individual Homework Projects” section**

Preliminary Information:

Your goal is to show you can successfully build a version of both the A290/A590 My First Activity and A290/A590 My First Dialog applications used as examples in class. The basic instructions for doing so are contained in the various guide files available via the Meeting Guides page of the website. We went through this entire basic process for both together as well, so reproducing a version of each with the original features should not be a real challenge. The real focus of this programming assignment is to successfully create, build, and test both Projects. Finally, you will ZIP both Projects together in a single ZIP file names **Project2.zip**. Each Project will still be in its own folder. If you cannot get this to work, we will permit you to ZIP each of the entire Android project folder/filesystems into their own files, **MyFirstActivity.zip** and **MyFirstDialog.zip**. Submit the single Project2.zip file (or the two separate zip files) to your Canvas “Homework PROJECT 2” assignment by the deadline indicated above. **Please BE SURE to use WinZip or compatible tools to ZIP your Project. This means, if you use 7zip, you need to make a “zip” archive, NOT a “7z” archive. REMEMBER: UITS stronger recommends only using a wired connection for large file transfers to Canvas. They suggest using on campus computers to further insure a successful upload.**

Assignment 2:

My First Activity Project: [60 points]

Create your version of the A290 My First Activity Application demonstrated in class. By your “own version” I mean your application can/should reflect some of your own design ideas. You are free to make some of your own choices about things (like string values, etc), as long as you meet all the requirements. Your A290/A590 My First Activity **must** include the following features:

1. A properly named Package Folder with properly named *.java and *.xml files.
2. All folders created by Android Studio when you create an Android Project. These should be all created automatically when you create of proper Project/Package.
3. Make sure your Home Screen has the Application name, “First Activity” or “My First Activity” properly set.
4. Add all the code required to your *.java file so that, **in debug mode**, all the states are clearly displayed, i.e., onCreate, onPause, etc.
5. Modify your “manifest” so you are using the Theme.Dialog style, even if it does not change the appearance of your app.
6. Proper **comments** in both your *.xml and *.java files, including both Heading Block comments and in-line comments. The guidelines for these are clearly explained in the file posted as a link on the Homework Page and discussed in class on 1/24/17, before Homework Project 1 was due.

My First Dialog Project: [40 points]

Create your version of the A290 My First Dialog Application demonstrated in class. By your “own version” I mean your application can/should reflect some of your own design ideas. You are free to make some of your own choices about things (like string values and “ids”, etc.) as long as you meet all the requirements. Your A290/A590 My First Dialog **must** include the following features:

1. A properly named Package Folder with properly named *.java and *.xml files.

2. All folders created by Android Studio when you create an Android Project. These should be all created automatically when you create of proper Project/Package.
3. Make sure your Home Screen has the Application name, "My First Dialog" or "First Dialog."
4. Rename both the *.xml and *.java main files from the default values when you start the Project, as per the Meeting guide.
5. Reset the "Relative Layout" to a "Linear Layout (Vertical)."
6. Modify the appropriate files so that the "Hello World" string is replaced with a properly configured **string resource** that includes text something like "This is supposed to be a dialog! Talk to me!" (**or something very similar**) and the string resource is properly and clearly renamed. Make sure the Text is properly centered on-screen.
7. Add the Button and the appropriate string resource (**you can choose resource id name and value as you prefer**) as described in Meeting Guide 6.
8. Add all the appropriate library resources to your *.java file.
9. Modify your primary public class as described in Meeting Guide 6.
10. When you add the deprecated method, use "Quick Fix", if needed, to suppress the warnings, if it is not done "automatically."
11. Add all the code for the onClick method so the proper buttons appear and the "Toast" messages reflect what appears in Meeting Guide 6. Again, you are free to modify the content of the messages as long as they convey similar information.
12. Proper **comments** in both your *.xml and *.java files, including both Heading Block comments and in-line comments. The guidelines for these are clearly explained in the file posted as a link on the Homework Page and discussed in class on 1/24/17, before Project 1 was due.

Once you have completed your Projects, be sure to test them with an AVD with the following, minimum features. This is what we will use to test. If you project loads and works on a "more powerful" AVD, it **MAY OR MAY NOT** work on this one. **Remember**, you need to test FirstActivity in "Debug" mode, instead of simple "Run" mode to be certain you see the proper "output" in the LogCat "Debug" screen.

AVD Requirements: [Be sure to test on the ARM emulator, not the x86 emulator.]

4.7 WXGA 720x1280:xhdpi
 Android 6.0 – API Level 23
 CPU/ABI: arm (intel with HAXM if available is preferred)

Start your AVD and when the Home Screen of the emulator becomes ready, "Run" or "Debug" each of your applications. You have seen this in class, so you should know what you are looking for. Be sure each application "reacts" or provided the proper "output" as per the examples in class.

Once you have successfully tested, as well as confirmed that your files are properly commented, exit Android Studio so you can zip your files.

Zip your files, just as you did for Homework Project 1. It is preferred that you combine both Projects in a single ZIP file, with the name indicated above, but you may submit each Project in its own ZIP file, with the names indicated above.

Scoring: [same % breakdown will be used for each of the two submitted Projects]

Project properly zipped and submitted so it can be unzipped and imported into Android Studio: **10%**
 Proper Comments in **ALL RELEVANT PAGES**: **20%**
 All string resources created and named OR renamed: **10%**
 Project layout is properly modified to reflect the specific requirements of this Project: **15%**
 All java code works correctly and matches expected output: **30%**
 Project Builds and run correctly on "target" AVD described above: **15%**

TOTAL: 100 points

[continued]

A290/A590
 Android Project Assignment 2

Handing in your Assignment

It should be clear that failure to successfully submit your ZIPPED [Please use WinZip or compatible tools] file to your Canvas "Homework PROJECT 2" assignment in the "Individual Homework Projects" section or failing to meet the deadline will result in a score of zero (0). Partial credit will only be possible if you are unable to make the project work, but are successful in submitting your project and most or all of what you submit is correct. If you have questions about this, ask them ASAP. **FINAL IMPORTANT NOTE:** As discussed in this document and in class **we would prefer** that you zip **both Project folders** in to a single zip file called **Project2.zip**. If you are not comfortable doing this, or are not sure how, then you are still permitted to submit the two separate zip files, one for each project.