

Assignment 1 – Getting Setup and Design Challenge

Due

Assignments will only be accepted Tuesday, September 10, 2019 in lecture [via hardcopy](#).

Homework is due via hardcopy in class. [Do not email homework](#). Eventually we will be submitting electronically in Blackboard.

Please write your answers clearly, or type and print them. For any programs that require programming, include your code as well as screenshots of the output.

[No late or emailed assignments. Lowest grade will be dropped.](#)

Readings

Pre-Read Chapters 1 & 2 from the Textbook

Assignment (DO NOT WAIT UNTIL THE LAST MINUTE)

Part 1a. Setup and install Android Studio.

Online References abound on installing Android Studio and some common errors. To get you started, you can download Android Studio from <https://developer.android.com/studio/index.html>. You may also need to install the Java SDK, though you may already have it. You may also need to add an environment variable, depending on how many Java versions you have on your machine. Every system is preconfigured differently. And you may need to do a little research on your own to get it to work on your computer.

Part 1b. Setup a virtual device and/or connect your physical device.

Once again, depending on your system/hardware this will differ. Please do the necessary research to achieve this. Videos on YouTube abound on how to do this.

Here are some examples on setting up a virtual device:

https://www.youtube.com/results?search_query=android+studio+setup+a+virtual+device

Here are some examples on connecting a physical device and setting it up for debugging:

https://www.youtube.com/results?search_query=android+studio+connect+a+physical+device

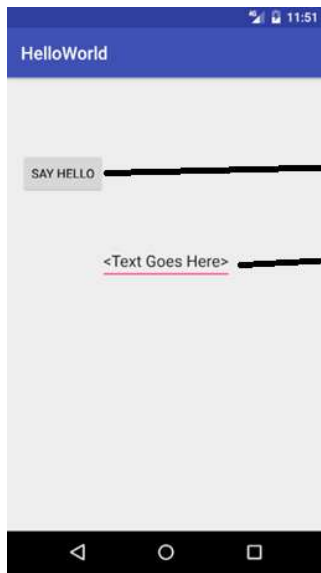
Part 1c. Compile and Run the Hello World App implemented in lecture.

As we did in lecture, implement a “Hello World” App. You have a choice here. Implement one yourself from scratch. Or use the one we created in lecture, if you go with the latter option, you do not have to add any code, just compile, build and run. *This may sound easy, but, **Android Studio can be quirky, and you may encounter unexpected configuration errors. Be patient. The code has been zipped up and posted on Piazza.***

Submission:

1. Your Java Source Code
2. Screenshots of your output running in either an emulator or on a physical device.

Your Simple App should look similar to the diagram below.



Part 2. From the worksheet given in lecture complete the following items (started in lecture). In the section “App Design Challenge(s)”, complete #2 Contractor for you, as well as the two Scenarios, “Lobstahmen’s Friend” and “Dial a Sentence”. You only need to generate story boards for Dial a Sentence. Use the slides describing how to storyboard a Tip Calculator App as a guide.

Notes:

The descriptions for all problems are purposefully vague. This is a design challenge, feel free to design in any way you would like.

For the storyboard, for Dial-a-Sentence, be sure to point out what the various widgets do in your sketch. Be as detailed as possible, Refer to the simple story board on the Tip Calculator from Lecture. You only need to identify 4 screens of your choosing, eg, game play, game settings, results, login, performance trends, etc. Be creative.