

CS 478: Software Development for Mobile Platforms

Homework #1 (adapted from Ugo Buy)

Due time: 11:59 pm on Monday 9/9/2019

Submit (pdf or MS Word file) using assignment submission in Blackboard page

Total points: 40

This homework will require that you download and open the Android Studio on your computer. In addition, you will be asked to show that you tried out some basic app editing and debugging features of the studio. Your deliverable is a MS Word or pdf file that contains snapshots from your display showing that you executed the instructions below. Note that the requirements for running the studio on MS Windows include the following features:

- Microsoft Windows 10/8/7/Vista (64-bit)
- 4 GB minimum, 8 GB RAM recommended • 2GB hard disk space, 4GB recommended • 1280 x 800 minimum screen resolution
- Java Development Kit (JDK) 8

The requirements for Apple Mac OSX 10.10 (Yosemite) and subsequent are similar; the full list can be found at the following URL for both OS families and for Linux:

<http://developer.android.com/sdk/index.html#Requirements>

1. (10 points) Download and install the Android Studio, version 3.3 or higher on your computer. Next, download the files that you require to run Oreo 8.1 (API level: 27) and Pie (API level: 28) on phones and tablets using the *SDK Manager* tool in the studio. Attach a screenshot containing a picture of your SDK manager (detailed view) after the downloads are complete. The picture should show some of the files that you downloaded in order to configure your Studio environment.
2. (10 points) Use the *AVD Manager* tool of the Studio to create two Google Pixel 2 XL AVDs, one running Oreo 8.1 (API Level 27) and one running Pie 9.0 (API level 28). Attach a screenshot of the AVD display

showing that the devices were created.

3. (10 points) Now create a new app in the Android Studio. Use all the defaults when you create the app. However, when you open the app you should change the text appearing the app from “Hello World!”, the default string, to a string saying your first and last names (e.g., “Hello, Mark Hallenbeck!”). Run your app using your device and attach a screenshot showing the full display of the device, including your first and last name.
4. (10 points) Now add a logcat output statement in the *onCreate()* method that was generated automatically by the Studio, subject to the following requirements.
 - (a) Use the INFO priority level for the statement.
 - (b) The statement’s tag should reflect the name of the activity issuing the statement.
 - (c) The statement’s description should include your first and last names (e.g., “Mark Hallenbeck was here!”).

Attach a studio screenshot showing the logcat output after you filtered the name of your activity from the general logcat output.

Submission instructions. Create an MS Word file or pdf document containing all screenshots listed above. The file should be named xxx yyy.docx or xxx yyy.pdf, where xxx and yyy denote your first and last names. Submit the file using the submit link in the assignment page of the Blackboard course web site. No late submissions will be accepted.