

CIS 3515 Lab

Worksheet 1

Exercise 1

Instructions:

Ensure that we have a functional development environment. We will be using Android Studio.

1. If this is your personal machine, ensure that you have a recent version of the Java Development Kit installed. Visit <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html> and download the latest version for your platform.
2. If this is your personal machine, install Android Studio. Visit <http://developer.android.com/sdk/index.html> and download Android Studio for your platform.
 - The setup will install the IDE, SDK, and set up a default virtual (emulated) device.
 - If you are using a machine in the lab for development, it should already have Android Studio installed. If it does not, bring this to the attention of the TA.
 - If you are using a machine that already has Android studio installed, move on to the next step.
3. Test the environment by creating a new Android project.
 1. Launch Android Studio
 2. If presented with the Quick Start dialog, select **Start a new Android Studio Project**
 3. If presented with the development interface, start a new project by clicking **File -> New Project...**
 4. For *Application name*, enter **HelloWorld**
 5. For *Company Domain* enter **temple.edu**
 6. For *Project location*, enter a location where you have write permission, and where your project files will be safe from future deletion, such as your user directory. Click on **Next**
 7. Ensure that only the *Phone and Tablet* checkbox is checked, and select API 23 (or the latest available platform) as the minimum SDK. Click on **Next**
 8. On the *Add an activity to Mobile* screen, select **Empty Activity**. Click on **Next**

9. On the *Choose Customize the Activity* screen, leave everything as default. Click on **Finish**
10. Once your application has been configured by Android Studio, test it by clicking on the Run App button (the green **play** button in the toolbar)
11. On the *Select Deployment Target* dialog, ensure an **Available Emulator** is selected. If no Emulators are listed, click on *Create New Emulator* and follow the steps to create a new virtual device (Ask the TA for assistance). To save time, check the *Use same device for future launches* checkbox. Click on **OK** – Once launched, you may have to “swipe up” on the screen using your mouse to unlock the device.
4. In the Project view of your IDE under **app**, expand the **res->values** folder and open the **strings.xml** file
5. Add a new XML item under **resources** resembling the following. Use the following information:
 1. *name*: my_greeting
 2. *value*: Hello, World. This is my first app!

Eg:

```
<resources>
    <string name="my_greeting">Hello, World. This is my first app!</string>
</resources>
```

6. In the **Project** view, expand the **res->layout** folder and open the **activity_main.xml** file
7. Perform one of the following and save the file
 1. Double click on the “Hello world” text visible on the phone mock-up, and replace **Hello World** found under *text*, with **@string/my_greeting**
 - or**
 2. Click on the **Text** tab under the palette list (bottom left), find the **TextView** tag, and replace the value of the **android:text** property with **@string/my_greeting**
8. Run your application again and note the change to the displayed text
9. **Show your running application to the TA by the end of the lab to receive your grade**