Week 3 – Tutorial A

The objective for this week are familiarise yourself with the Android Studio environment and experiment with some basic functionality.

You will achieve this by:

1. Following the instructions below to create a HelloWorld application
2. Configure the environment

As **evidence of completion of these exercises**, you will need to upload on SunSpace (one zip file) the following files

Exercise 1: the project folder (zipped)

Exercises 2 and 3: a PDF file (wk3tutA.pdf) where you comment very briefly a few screenshots, where you demonstrate you have completed successfully the tasks. For exercise 3 include also the AVD_Nexus5.txt file

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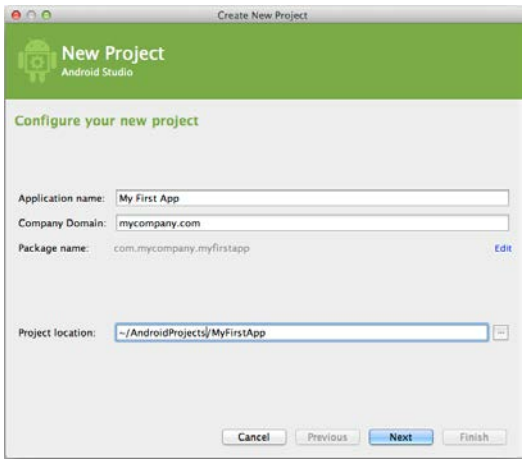
Exercise 1

Create a Hello World application by following the instructions below. The instructions given have been taken from the Android developer website.

In Android Studio, create a new project:

- If you don't have a project opened, in the Welcome screen, click New Project.
- If you have a project opened, from the File menu, select New Project.

Under **Configure your new project**, fill in the fields as shown in figure 1 and click **Next**.



Use the following names when creating your project:

- **Application Name** is the app name that appears to users. For this project, use "My First App."

- **Company domain** provides a qualifier that will be appended to the package name; Android Studio will remember this qualifier for each new project you create.
- **Package name** is the fully qualified name for the project (following the same rules as those for naming packages in the Java programming language). Your package name must be unique across all packages installed on the Android system. You can **Edit** this value independently from the application name or the company domain.
- **Project location** is the directory on your system that holds the project files.

  H:\CET325\WK3\MyFirstApp

Under **Select the form factors, your app will run on**, check the box for **Phone and Tablet**.

For **Minimum SDK**, select **API 16: Android 4.1 (Jelly Bean)**.

The Minimum Required SDK is the earliest version of Android that your app supports, indicated using the API level. To support as many devices as possible, you should set this to the lowest version available that allows your app to provide its core feature set. If any feature of your app is possible only on newer versions of Android and it's not critical to the app's core feature set, you can enable the feature only when running on the versions that support it.

Leave all of the other options (TV, Wear, and Glass) unchecked and click **Next.**

Under **Add an activity to <*template*>**, select **Empty Activity** and click **Next**.

Under **Choose options for your new file**, change the **Activity Name** to *MyActivity*. The **Layout Name** changes to *activity_my*, and the **Title** to *MyActivity*. The **Menu Resource Name** is *menu_my*.

Click the **Finish** button to create the project.

Exercise 2

Execute the application using the built in Android Emulator. The emulator has been set up so that a default device exist for you.

- If you never used Android before, interact with the Emulator to familiarise with this mobile OS.
- Even If you already used Android, it useful to spend some time to look at how this version differs from the one you are used to, and how to interact with the device using the emulator rather than a physical device.
- While running the emulator try changing different options and features: use the vertical bar on the right of the device.
- Stop the emulator and restart the app.

N.B. If you do not see your app running, stop the emulator and restart the app.

Exercise 3

We would like to check the configuration of Android Studio. It should be the same to the one presented in the lecture:

- Check the location of Android SDK
- Check the SDK manager
- Check the AVD manager
- Save the configuration of the Virtual Device in a file (AVD_Nexus5.txt) and look at different parameters.
- Disable the automatic update of Android Studio