



With over **1 billion** Android devices already activated, Android represents an incredible opportunity for developers. Android Studio is a latest and most widely accepted IDE designed by Google itself. If you want to develop apps in android then it is highly recommended to use Android Studio.

A typical native android application is written using XML for the frontend (the User Interface) and JAVA for the backend.

JAVA All the programming part in android development is done using JAVA. Although it's a great advantage, if you know a thing or two about programming in Java, but even if you know any object oriented programming language, then it will not be much difficult to relate to the concepts used during development. In short if you know C++ or C then also you are at peace.

XML This is used to build the app's user interface. All user interface elements in an Android app are built using View and ViewGroup objects. It has drag and drop User Interface

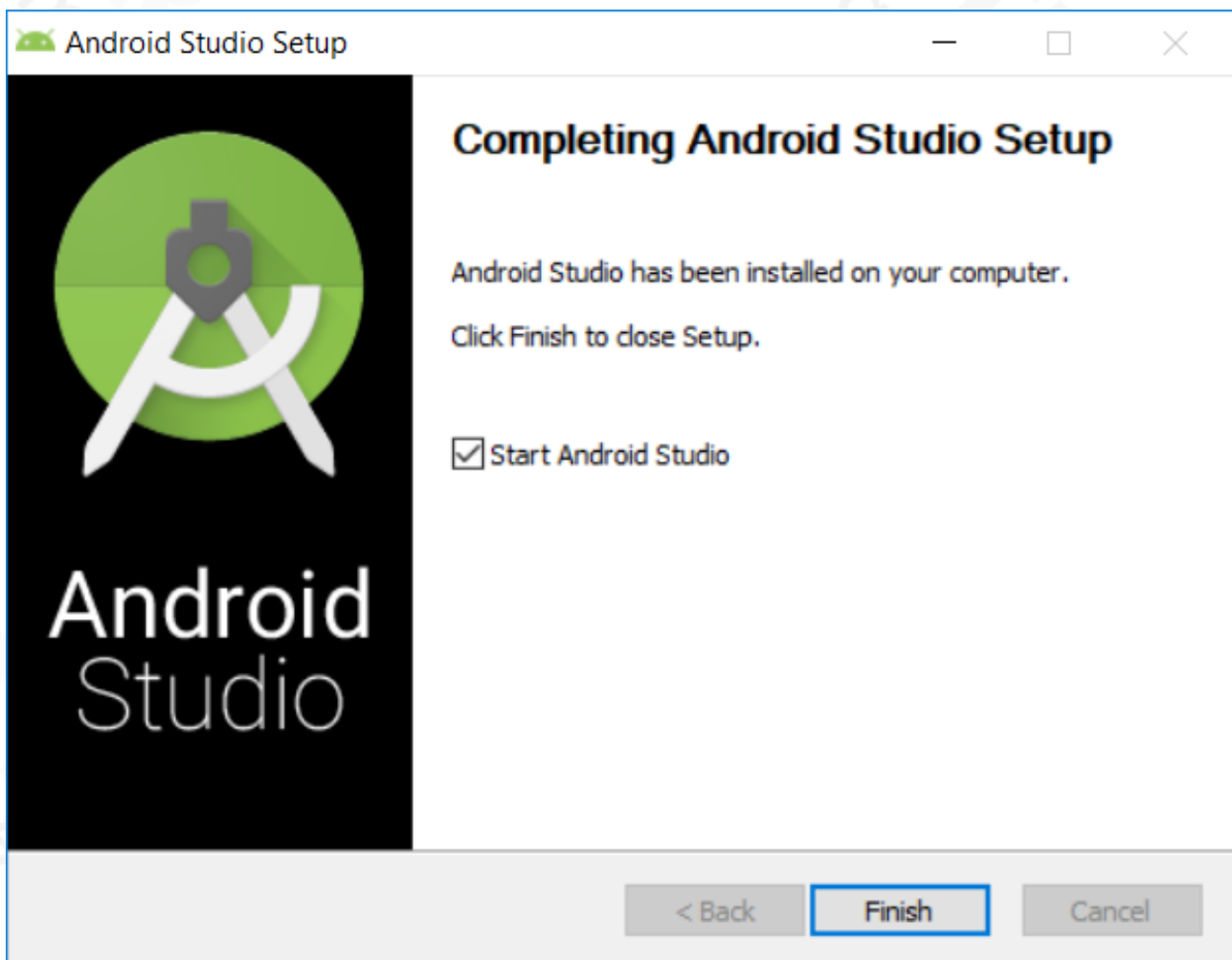
Running the app An android application can run either on your device or in the emulator that comes bundled with the SDK. Since the emulators can be slow, it is always recommended to use an actual device. [This link](#) contains the detailed explanation for setting up your device/emulator for testing.

JDK and JRE are essential for JAVA to run on your machine.

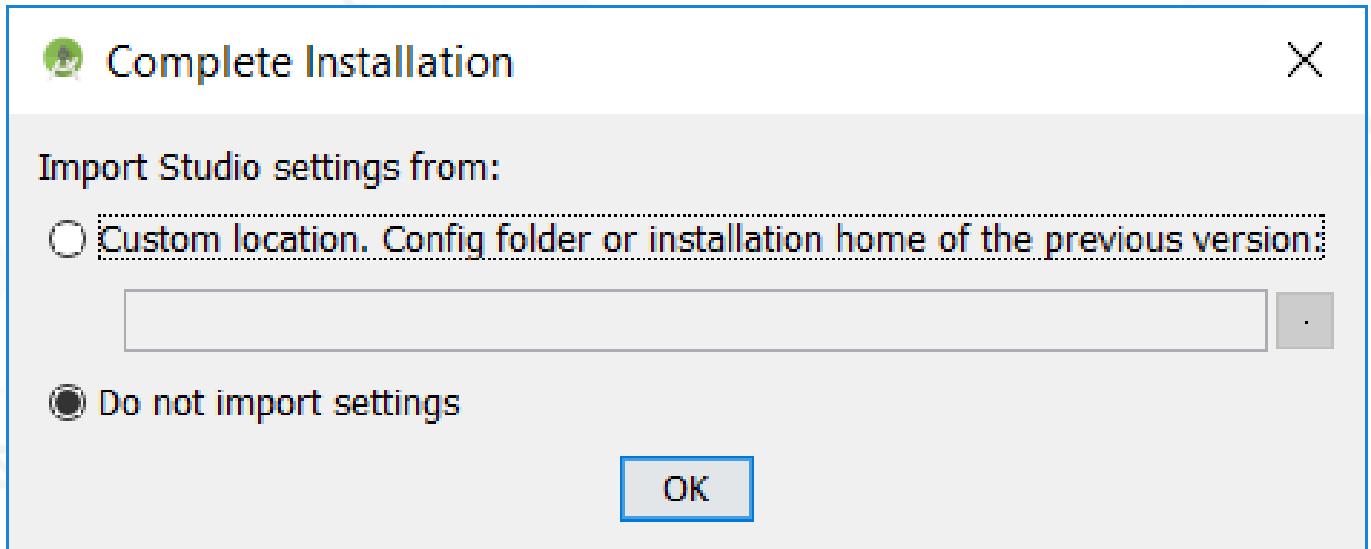
There is no need to install Java as latest Android Studio versions already come with JDK bundled with it. [See here](#) for more information.

(linux users click [here](#))

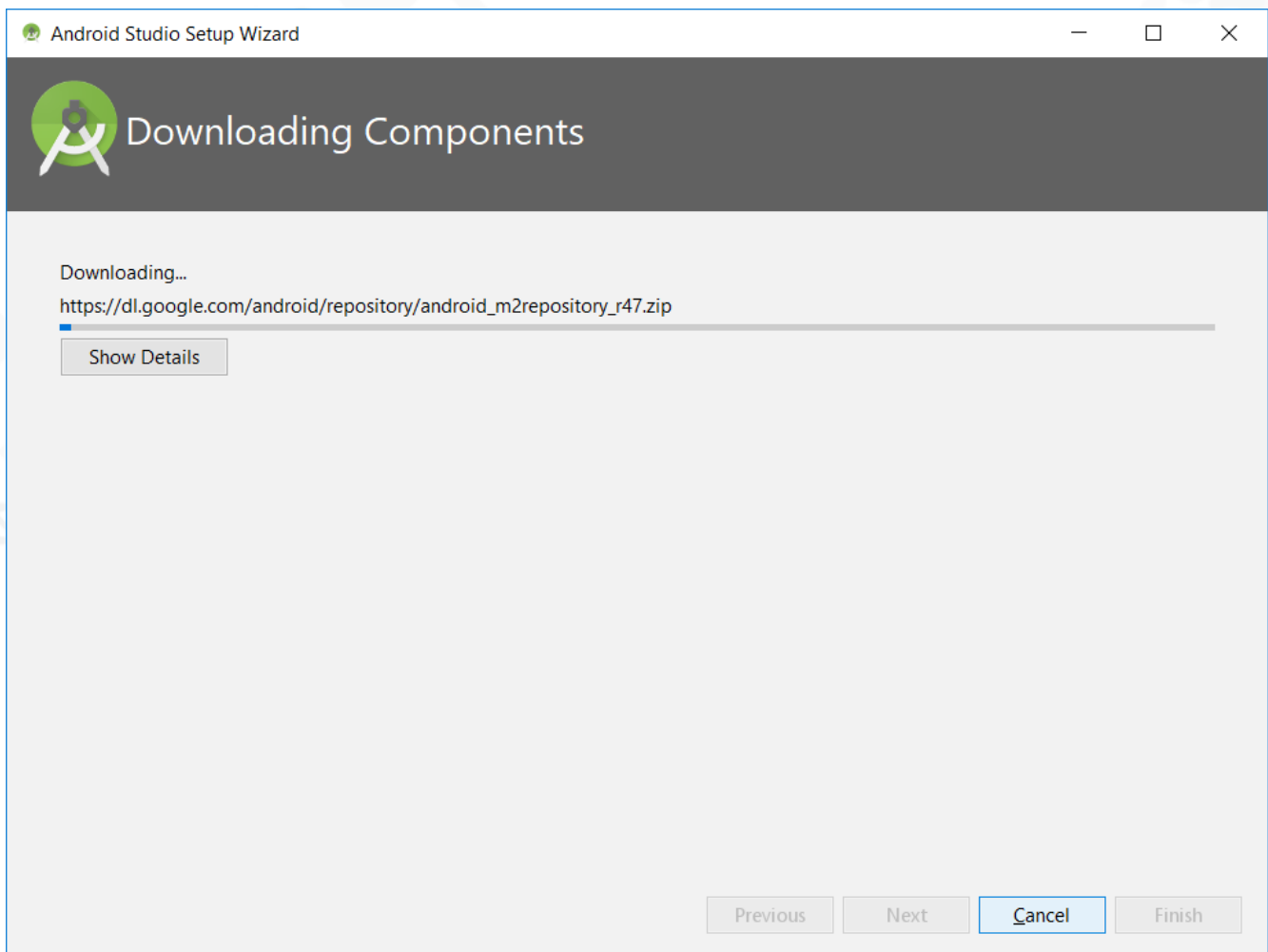
- Go to [this link](#) and select “Download Android Studio for Windows”.
- Check the “ I have read and agree with the above terms and conditions” box and Download Android Studio For Windows.
- Install studio after downloading. Keep on clicking next button and at last click finish.



- Android Studio will open up. A window similar to the below one would appear.



- Select Do not import settings since you don't have any. Again keep on clicking next and at last finish. It will take some time for downloading files.

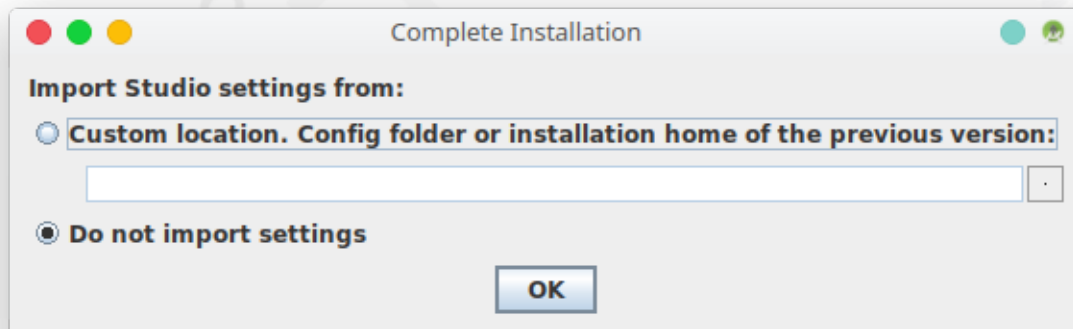


• There are still some dependencies left to install. These can be install by building your first project so head to [recommended](#) section for things you'll need for this lecture.

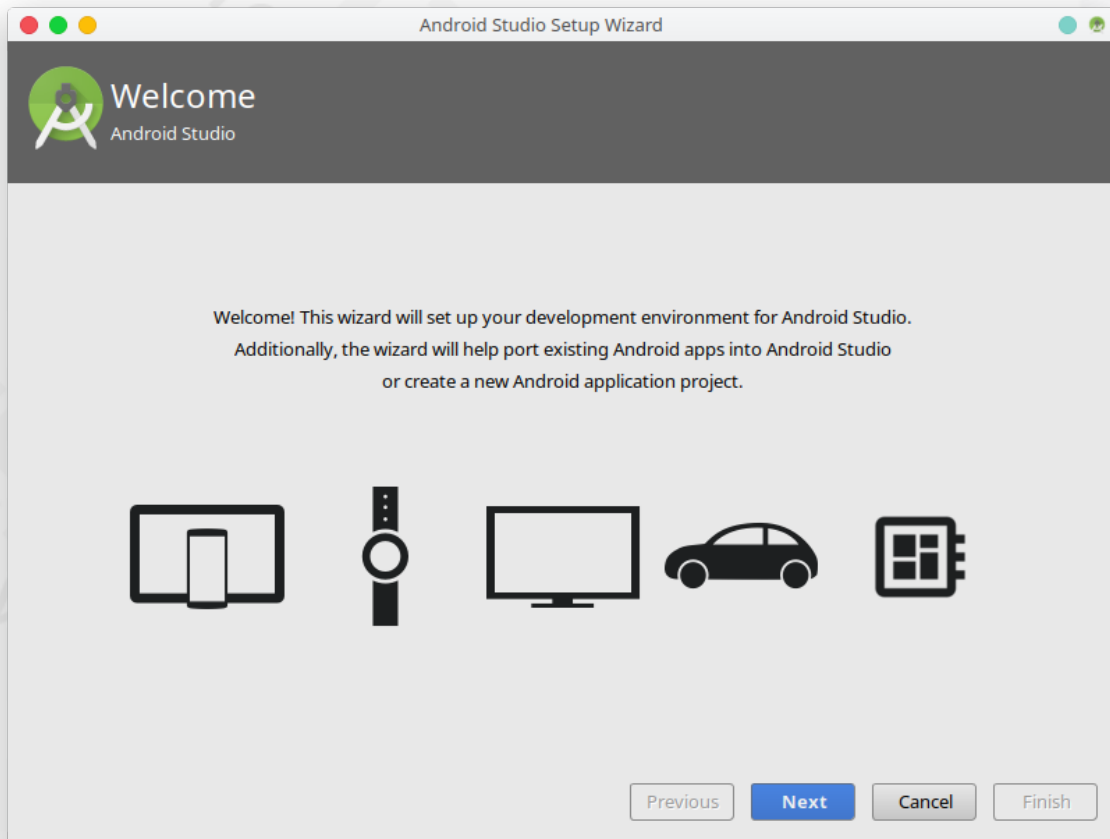
1. Get your Android Studio from [here](#).
2. Click on the Download Android Studio button and accept the terms to get your download started.
3. Extract the file where you want to install Android Studio. Preferred installation location is the user's home directory (~) or the opt directory (/opt).
4. In terminal type:

and then

5. A dialog appears like the one below. Select *do not import settings*.

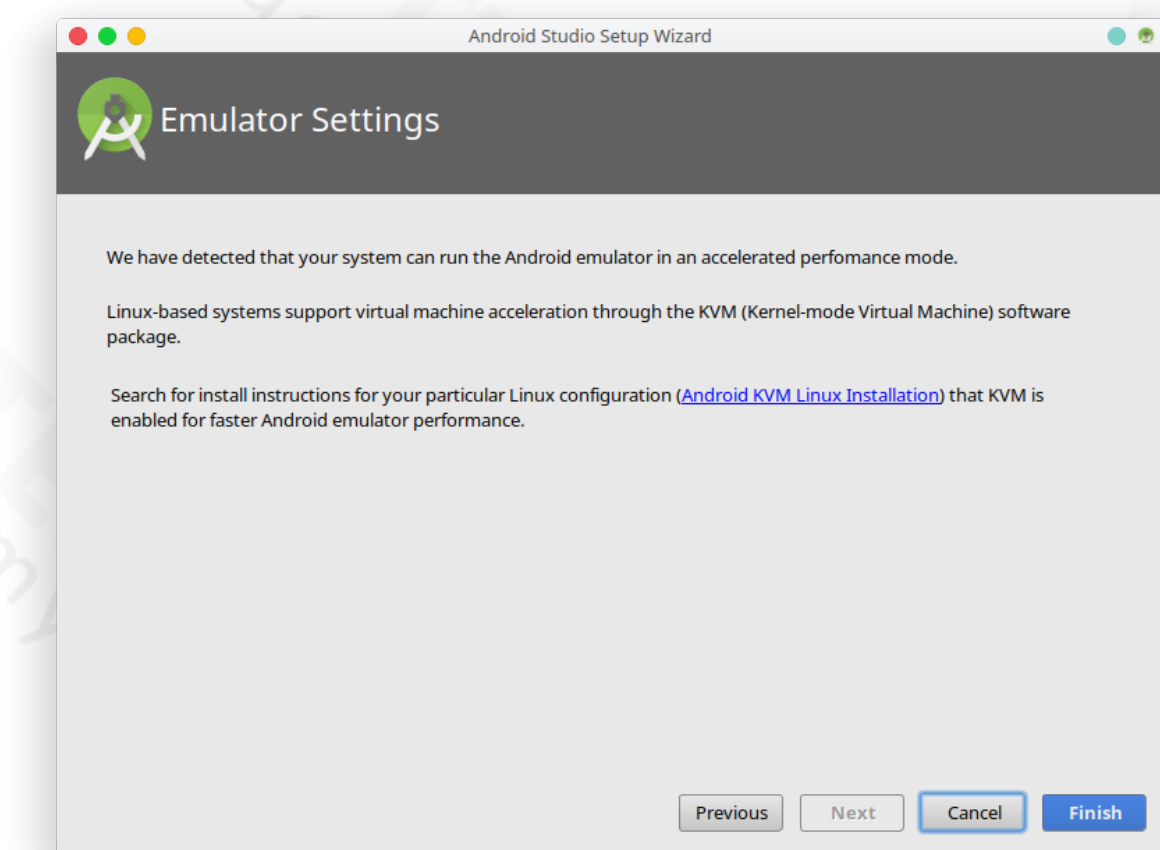


6. You will now see the Android Studio Setup wizard as shown below.

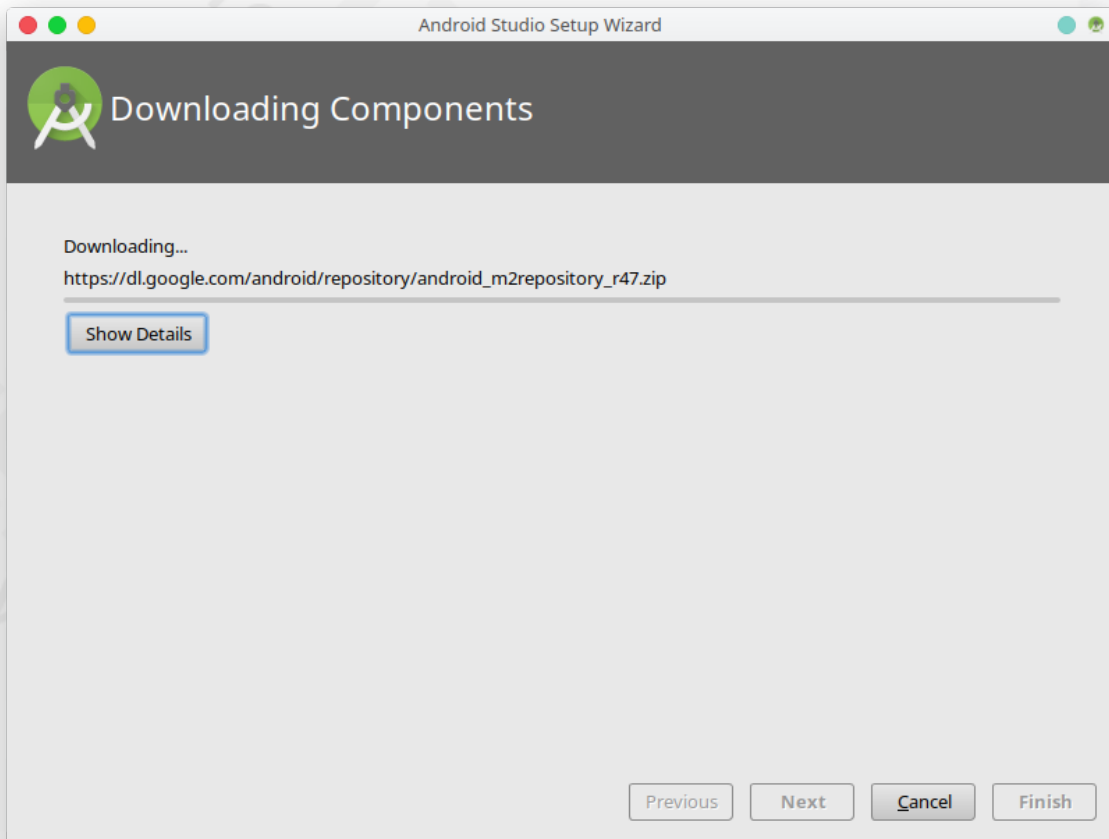


7.

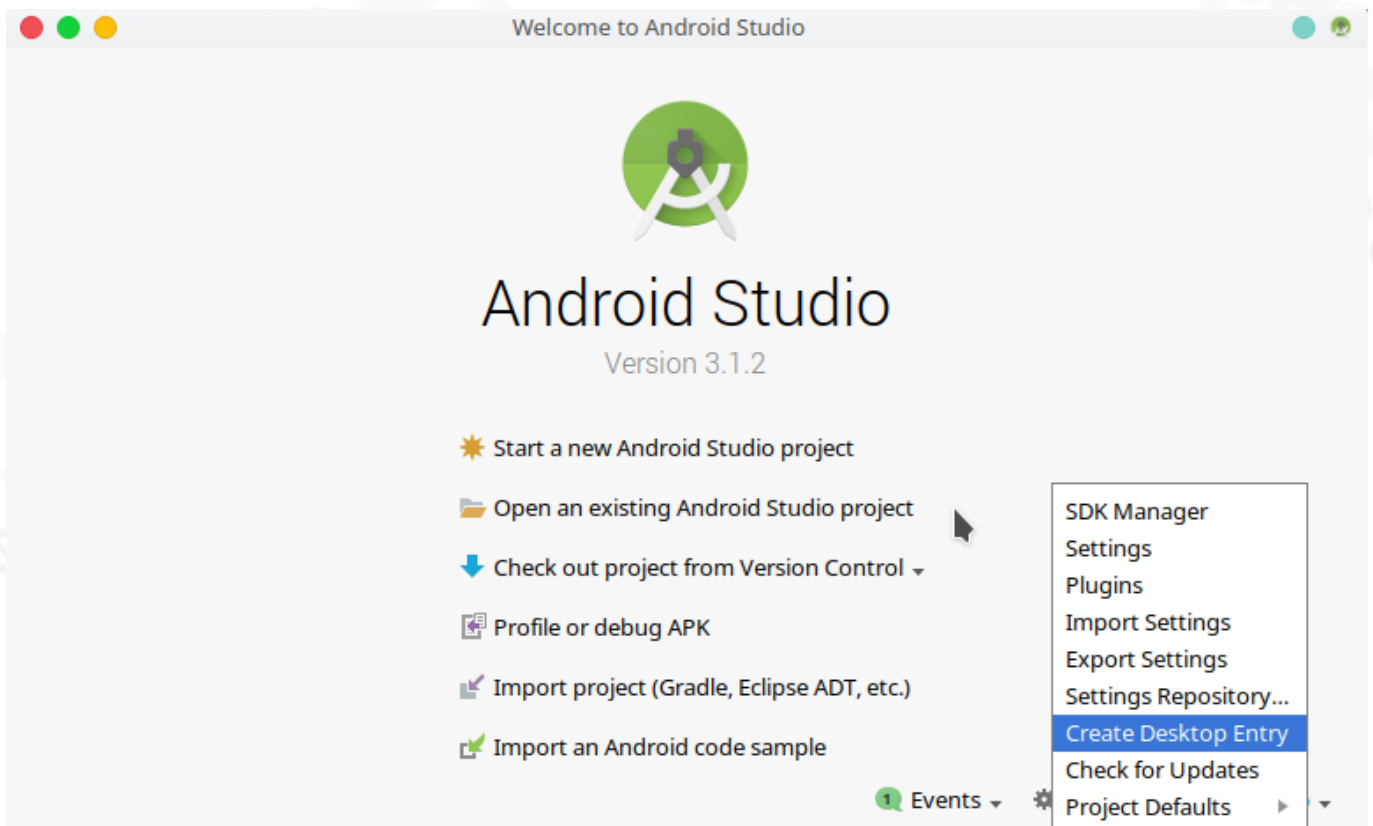
7. Keep on clicking next until you see a Dialog similar to one below. Click Finish.



8. Wait while Android Studio downloads necessary components. Click Finish.



9. The Android Studio window shall open. Click the option *Create Desktop Entry* from the *Configure Menu* to create shortcut to android studio in launcher. This avoids the need to open the terminal each time you want to launch the Studio.



Bring your USB cable so that you can test application on your own device!

(For first time users)

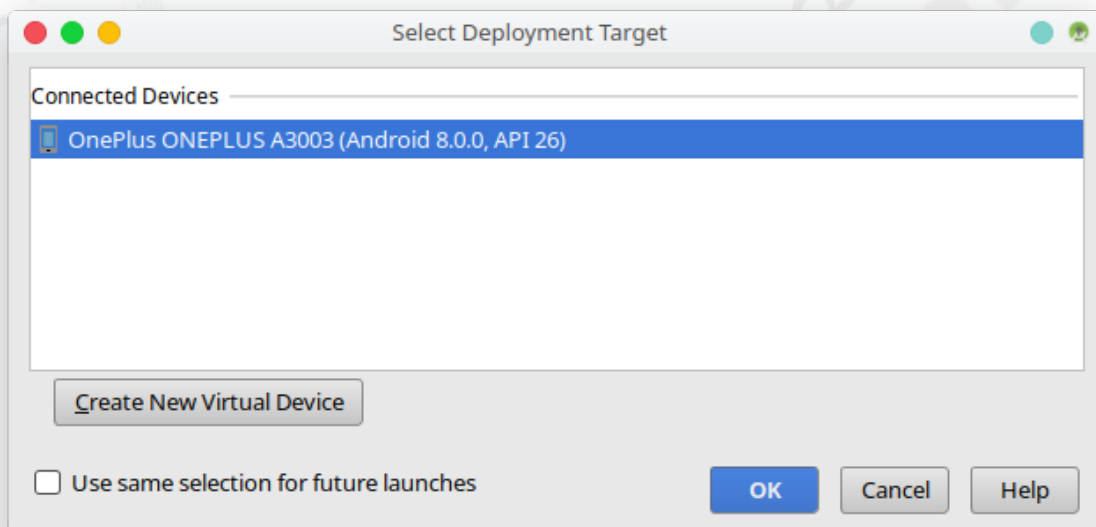
1. Ensure an internet connection on your machine
2. Start Android Studio
3. Click *Start a new Android Studio Project*
4. On screen *Configure your new project* leave default options and click *Next*
5. Leave default options unchanged and click *Next*.
6. Select *Empty Activity* and click *Next*.
7. Leave default options unchanged and click *Finish*.
8. If Gradle build fails (check the status bar at the bottom) and Android Studio asks to download additional packages, allow it.
9. Keep repeating *step 8* till you get a successful gradle build (status bar will say: Gradle build finished).
10. Keep this project open as you will run this test app on your phone later.

(Enable USB Debugging in your phone and run)

- Follow [this](#) to enable USB debugging in your Android phone.

(Run the Test app on your phone)

1. After following the above two steps, it's time to build and run your first test app (A HelloWorld app, if you will) on your phone.
2. Connect your phone to your PC via the usb cable.
3. Allow USB debugging if asked to in your Android device.
4. Now, open the empty Project we created before in Android Studio.
5. Click *Run 'app'* (Shift + F10) option in the *Run* menu.
6. A dialog should appear allowing you to select your device.



1. Click *OK* and wait for your first app to run on your own phone.

These steps are necessary for first time user to ensure everything is downloaded when you come to the lecture.

If you have any trouble setting up your development environment, feel free to [contact us!](#)

- Unable to access android sdk add-on list: [First run of Android Studio. Unable to access Android SDK add-on list](#)
1. Turn off the firewall.
 2. Run Studio again.
 3. Add android files to trusted files in your windows firewall and restart the firewall.
 - Your Android SDK is missing, out of date, or is missing templates. You can configure your SDK via Configure -> Project Defaults -> Project Structure -> SDKs:
 - [Your Android SDK is missing , out of date,or is missing templates](#)
 - Unable to locate adb within SDK:
 - [ADB error on Android SDK. Using Linux Ubuntu 64 bit 12.10](#) — StackOverflow
 - [Error:Unable to locate adb within SDK in Android Studio](#) — StackOverflow

[thenewboston](#) : Youtube channel to get you started.

Some basic links to grasp a bit of more knowledge:

- [What is difference between JDK and JRE](#) — StackOverflow
- [What does Java home environment variables do?](#) — StackOverflow

For any queries feel free to ask down in comments or [chat with us](#) !