

INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO
(ISEP)

LICENCIATURA EM ENGENHARIA DE TELECOMUNICAÇÕES E
INFORMÁTICA (LETI)

DESENVOLVIMENTO DE SOFTWARE E SISTEMAS MÓVEIS (DSSMV)



DSSMV: PL: Week 4

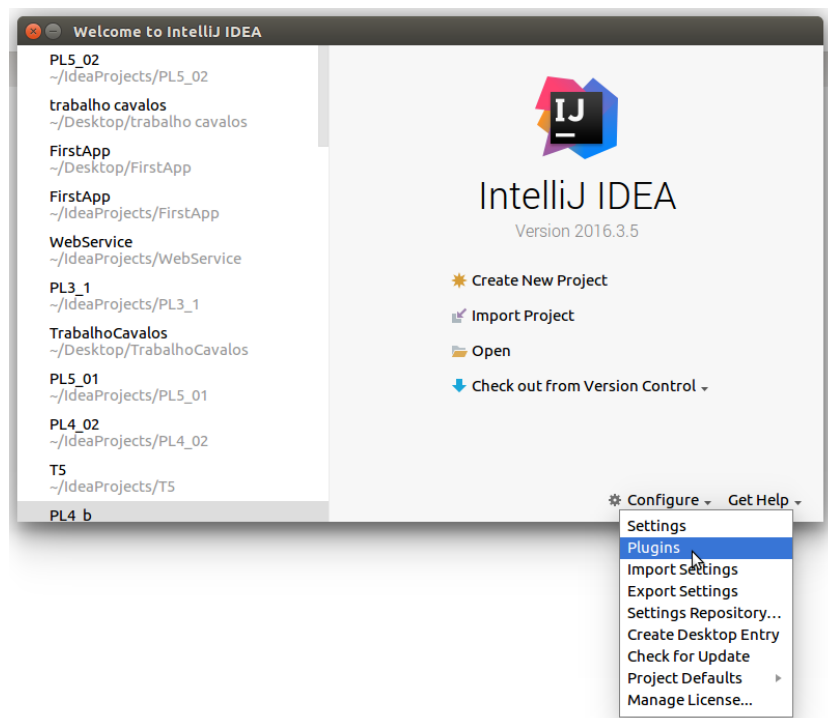
Setting Up Android Developing Environment

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2025/26

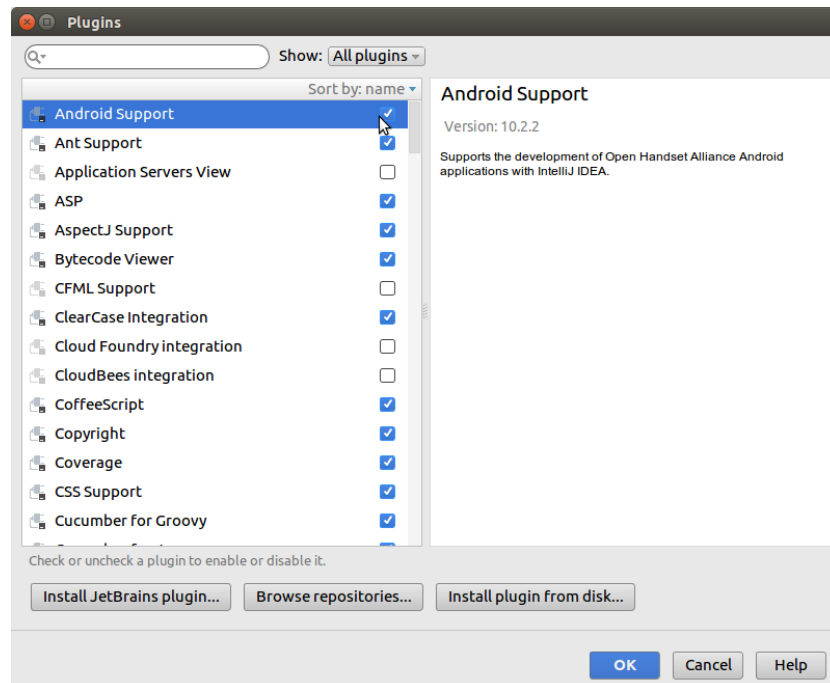
1 Configure IntelliJ IDEA

1.1 Adding Android Plugin

From the IntelliJ IDEA welcome windows, click on **Configure > Plugins**.

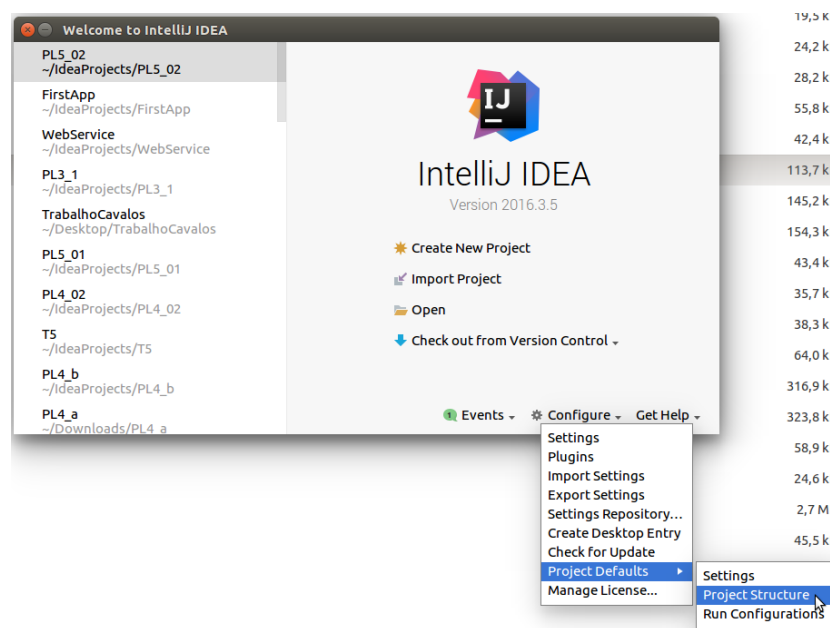


The IntelliJ IDEA shows the installed plugins. Check **Android Support** and click **OK**.

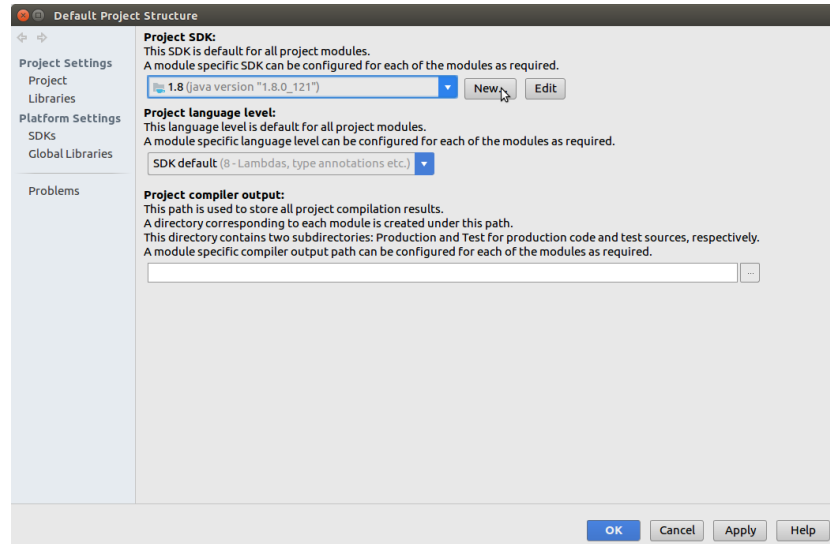


1.2 Add Android SDK

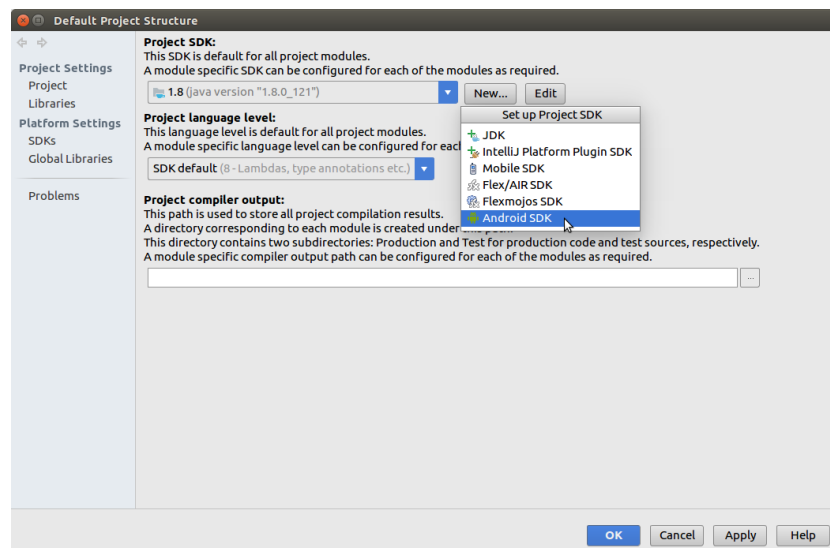
From the IntelliJ IDEA welcome windows, click on **Configure > Project Defaults > Project Structure**.



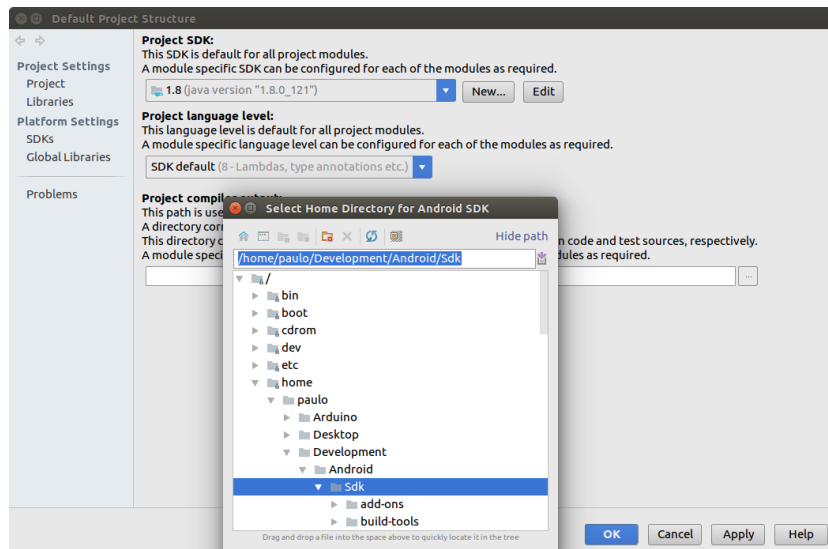
The IntelliJ IDEA shows the Project Settings.



Select New > Android SDK.



Specify the Android SDK path.

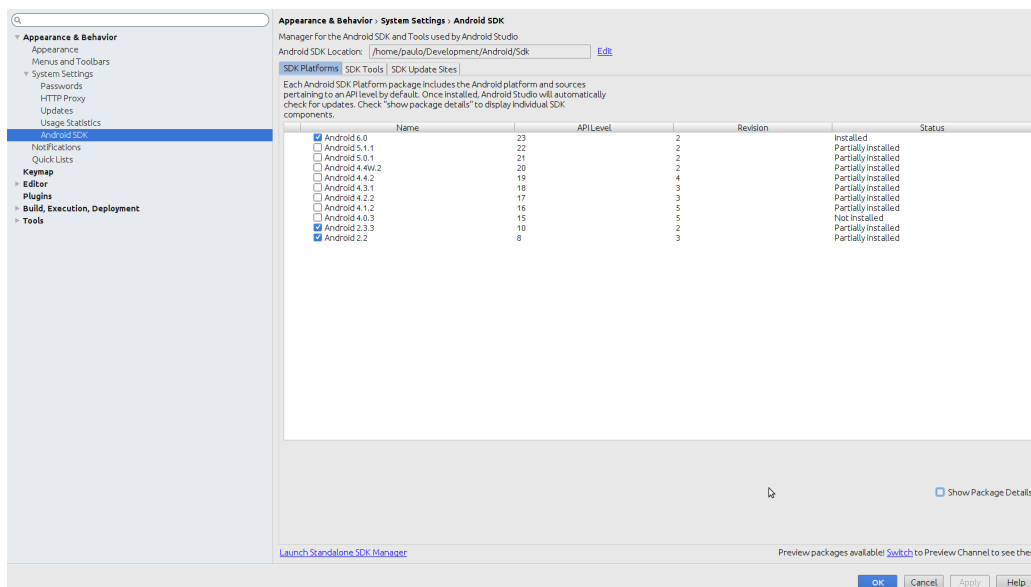


On Windows systems, usually, is at `C:\ProgramFiles(x86)\Android\SDK`.

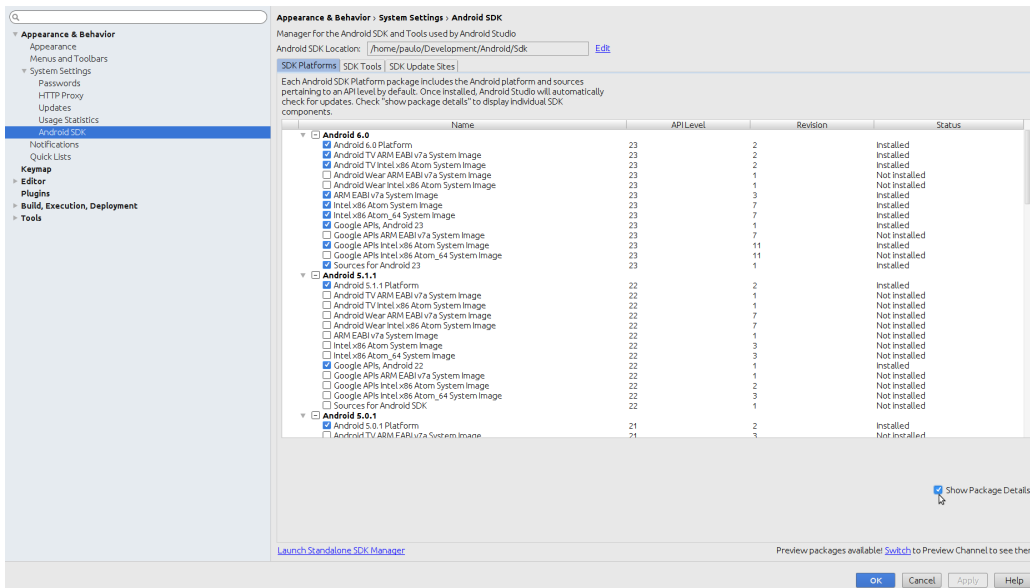
2 SDK Manager

The Android SDK separates tools, platforms, and other components into packages you can download them using the SDK Manager. You can launch the SDK Manager from IntelliJ, by selecting **Tools > Android > SDK Manager**.

The Android SDK Manager shows the SDK packages that are installed and also the available ones.

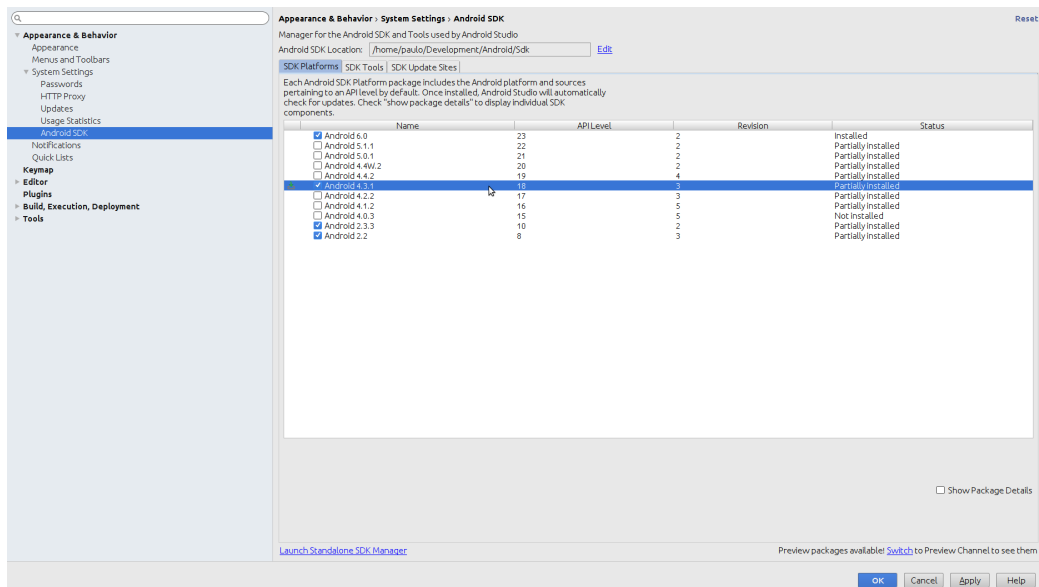


Checking **Show Package Details**, it is presented details of each package. Using this option, you can select the components of each package you want install.

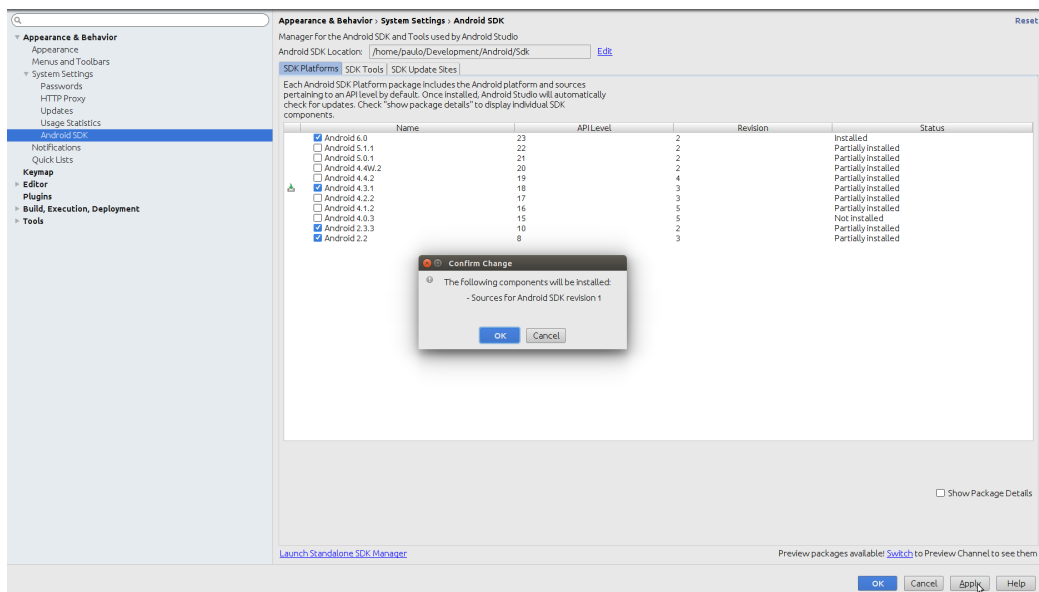


2.1 Get SDK Platforms

In order to create Android Apps you must set up Android SDK version you would like to develop. For instance, if you want to install all components of the Android API 18, you should check such API.

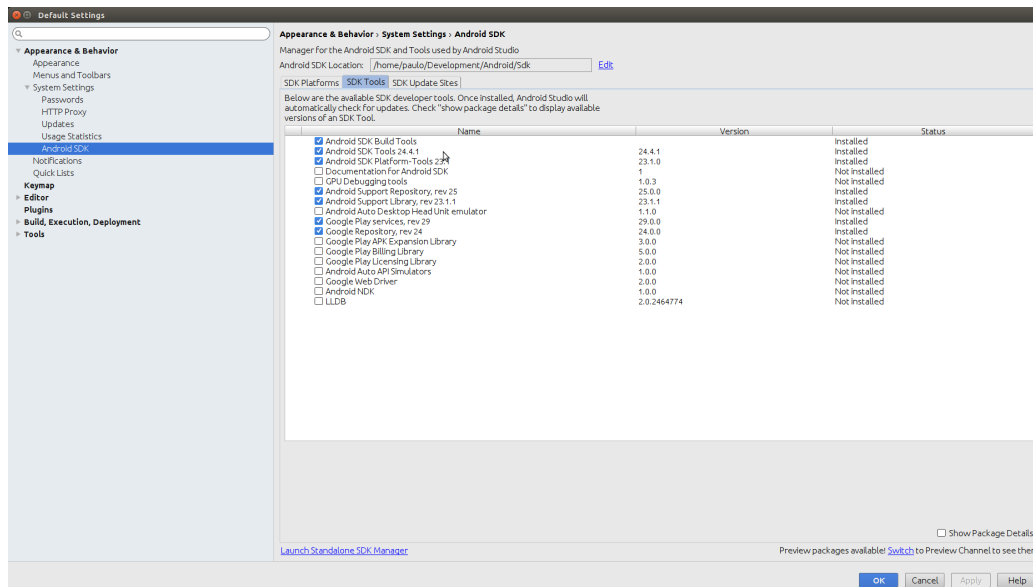


Then, must click on **Apply** and a confirmation window is launched. If you choose **Ok** the selected API package is downloaded.



2.2 Get SDK Tools

SDK Tools is a downloadable component for the Android SDK. It includes the complete set of development and debugging tools for the Android SDK.



2.3 Get Tools

In order to create Android Apps you must set up Android SDK, you should download the latest tools and Android platform:

- Android SDK Build-tools (highest version)
- Android SDK Tools
- Android SDK Platform-tools
- Google USB Driver
- NDK version 27.1.12297006

2.4 Get Support Libraries

The Android Support Library provides an extended set of APIs that are compatible with most versions of Android. For that you must select:

- Android Support Repository
- Android Support Library

2.5 Get Google Play services for even more APIs

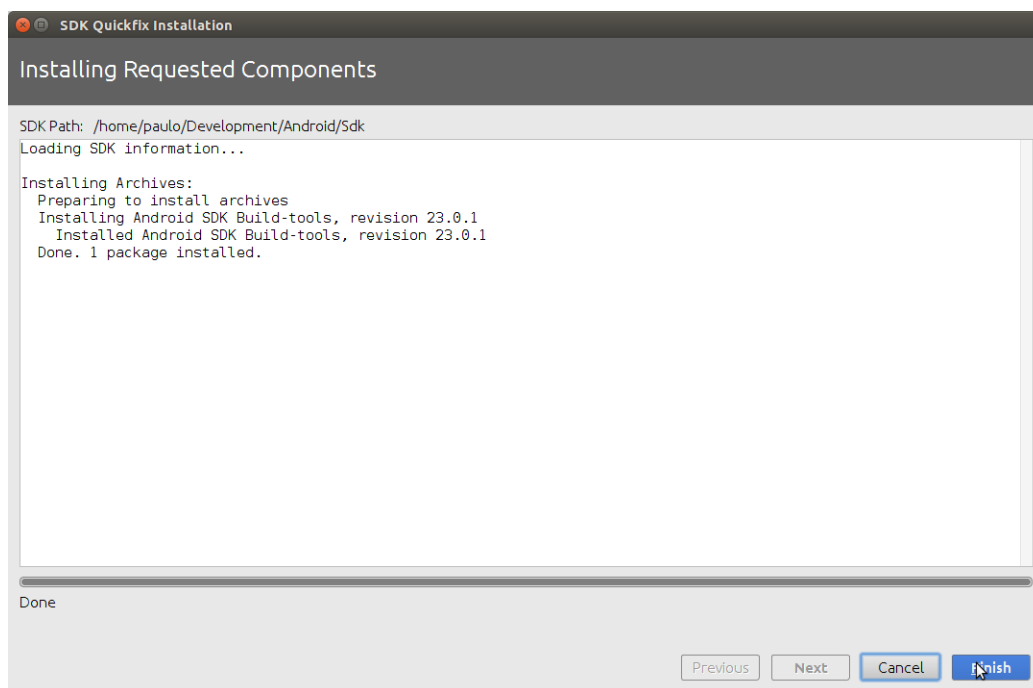
To develop with Google APIs, you need the Google Play services package. For that you must select:

- Google Repository
- Google Play services

2.6 Download and Install SDK tools

Once you've selected all the desired tools, you must click on **Apply**, then confirm by clicking on **Ok**.

The download progress is shown at the bottom of the SDK Manager window. Do not exit the SDK Manager or it will cancel the download.

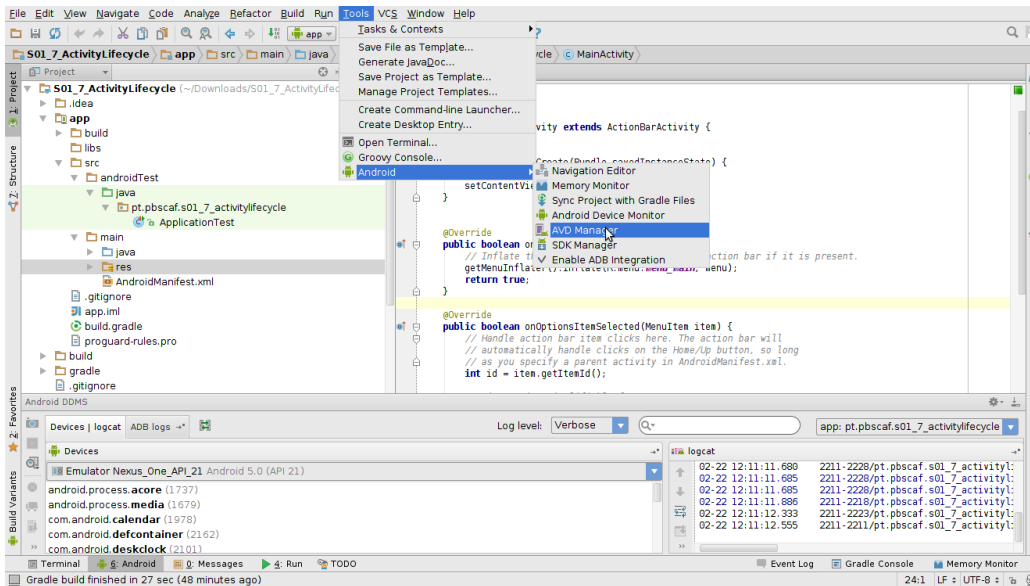


In the end, you must click on **Finish**.

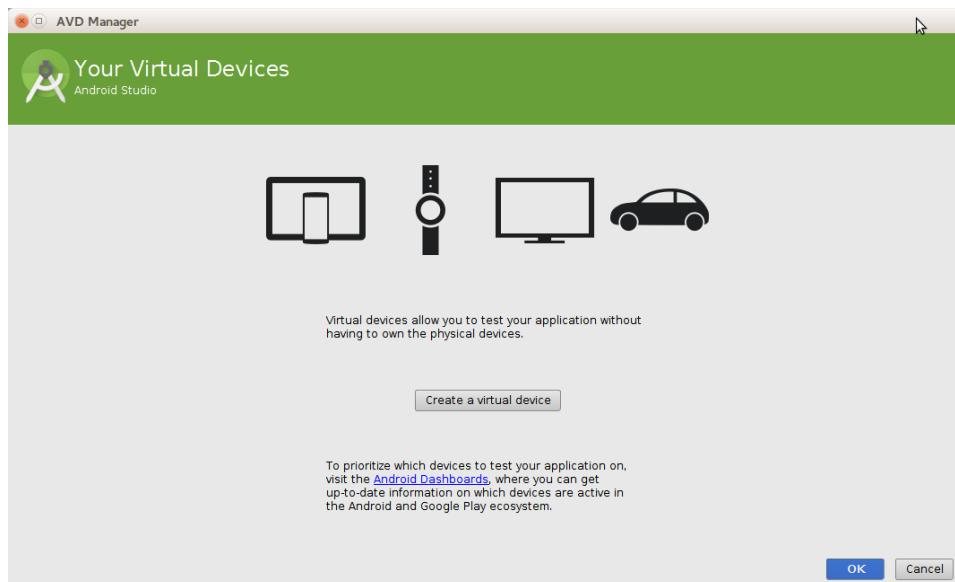
3 Creating an AVD

To run your app on the emulator you need to first create an Android Virtual Device (AVD). An AVD is a device configuration for the Android emulator that allows you to model different devices.

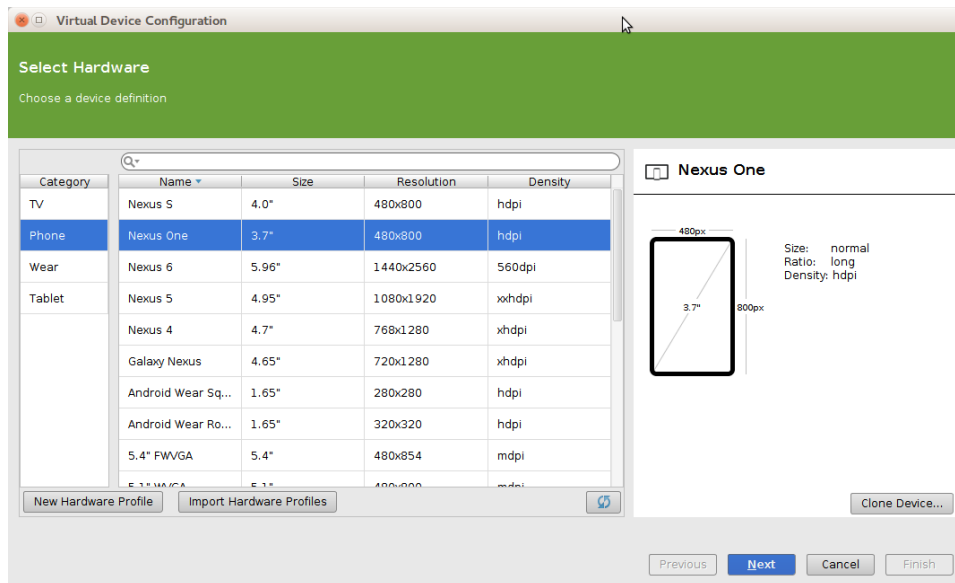
Launch the Android Virtual Device Manager, from IntelliJ by clicking Tools > Android > AVD Manager.



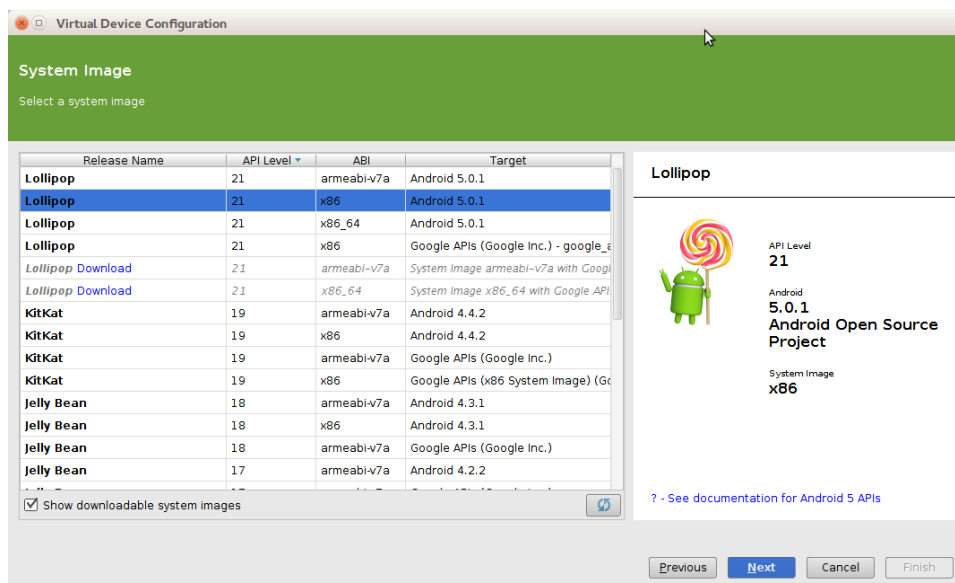
1. In the AVD Manager panel, click Create a virtual device.



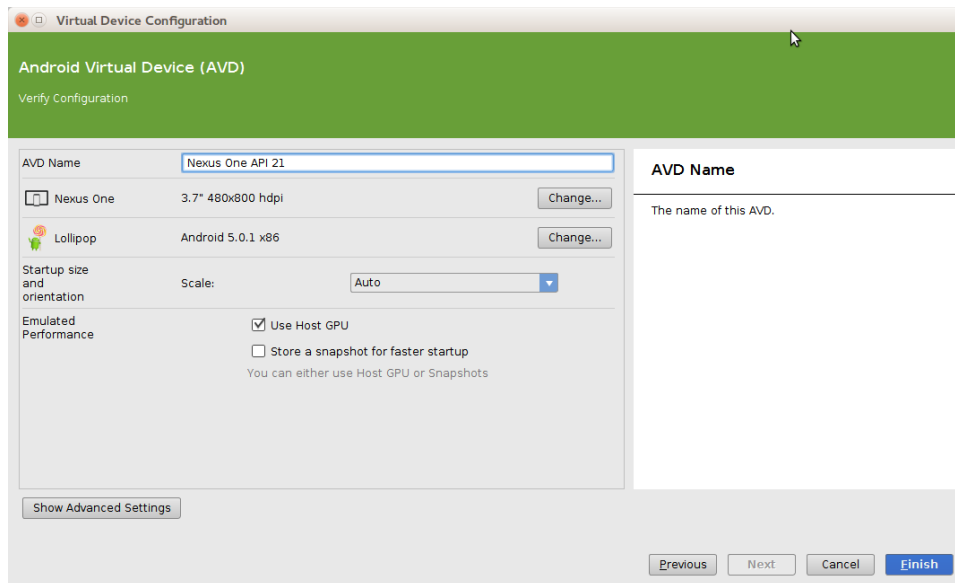
2. Select the Category and the device and click Next.



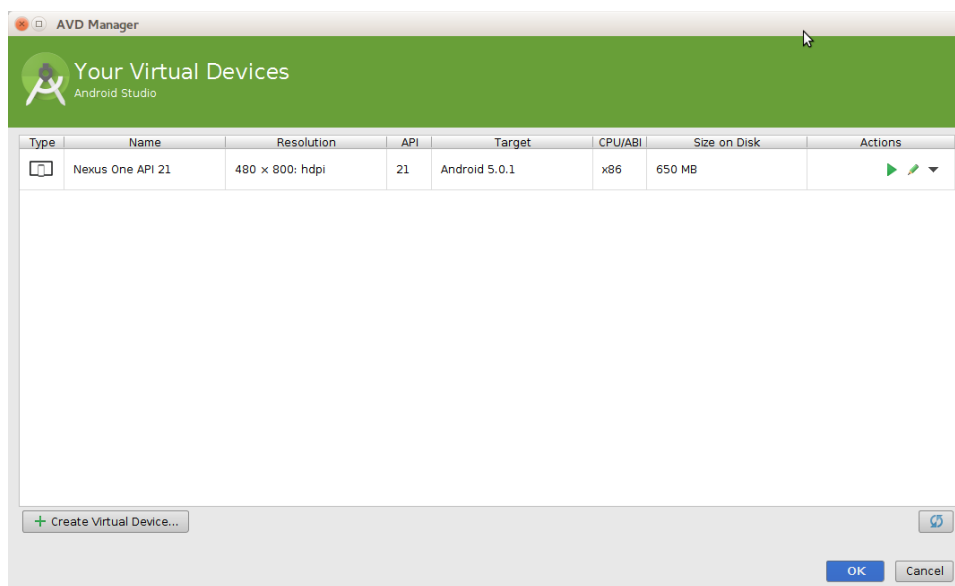
3. Select the API and click Next.



4. Specify the name and Click Finish.



5. Select the new AVD from the Android Virtual Device Manager and click Start (green arrow).



6. After the emulator boots up, unlock the emulator screen.

