

Software Installation Process

1. Java installation

Download and Install:

It is recommended; before you proceed with online installation you may want to disable your Internet firewall. In some cases the default firewall settings are set to reject all automatic or online installations such as the Java online installation. If the firewall is not configured appropriately it may stall the download/install operation of Java under certain conditions. Refer to your specific Internet firewall manual for instructions on how to disable your Internet Firewall.

Go to the Manual download page: <https://www.java.com/en/download/manual.jsp>

Click on Windows Online

The File Download dialog box appears prompting you to run or save the download file

To run the installer, click Run.

To save the file for later installation, click Save.

Choose the folder location and save the file to your local system.

Tip: Save the file to a known location on your computer, for example, to your desktop.

Double-click on the saved file to start the installation process.

The installation process starts. Click the Install button to accept the license terms and to continue with the installation.



Oracle has partnered with companies that offer various products. The installer may present you with option to install these programs when you install Java. After ensuring that the desired programs are selected, click the Next button to continue the installation.

A few brief dialogs confirm the last steps of the installation process; click Close on the last dialog. This will complete Java installation process.

Now Include JDK's "bin" Directory in the PATH.

Control Panel ⇒ System ⇒ Advanced system settings

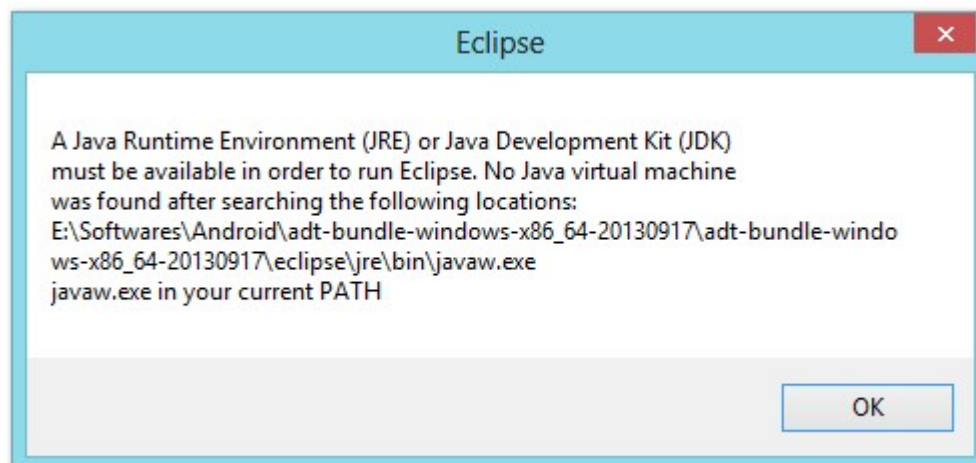
Switch to "Advanced" tab ⇒ Environment Variables

In "System Variables", scroll down to select "PATH" ⇒ Edit



2. ADT Bundle Installation

First you need to [install JVM/JDK kit](#) if your system don't have one, otherwise you'll get the following error:



So install it from [here](#) and install. I installed 64 bit as compatible to my OS.

2. Now go to [Android Developer page](http://developer.android.com/sdk/index.html) to download Android Development Kit (ADT). This single ADT Bundle includes the following tools and plugins which you need to begin developing android apps:

Eclipse and ADT plugins

Android SDK Tools

Android Platform tools

The latest Android platform

The latest Android system image for the emulator etc.

Get it from here >> <http://developer.android.com/sdk/index.html>

Get the Android SDK

The Android SDK provides you the API libraries and developer tools necessary to build, test, and debug apps for Android.

If you're a new Android developer, we recommend you download the ADT Bundle to quickly start developing apps. It includes the essential Android SDK components and a version of the Eclipse IDE with built-in **ADT (Android Developer Tools)** to streamline your Android app development.

With a single download, the ADT Bundle includes everything you need to begin developing apps:

- Eclipse + ADT plugin
- Android SDK Tools
- Android Platform-tools
- The latest Android platform
- The latest Android system image for the emulator

Android Studio Early Access Preview

A new Android development environment called Android Studio, based on IntelliJ IDEA, is now available as an **early access preview**. For more information, see [Getting Started with Android Studio](#).

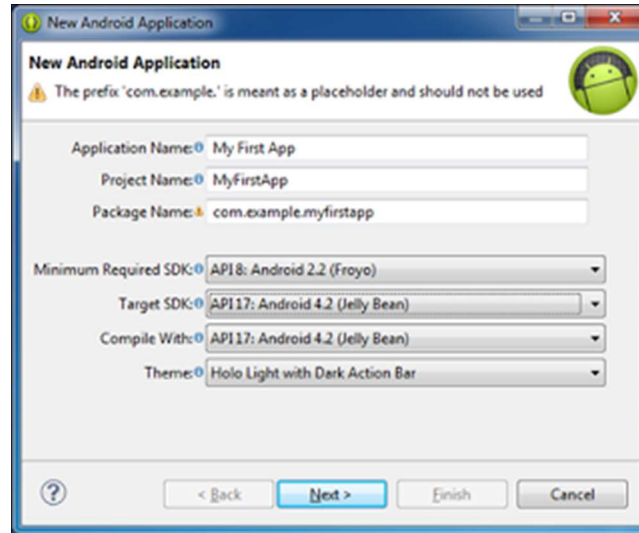


Download the SDK
ADT Bundle for Windows

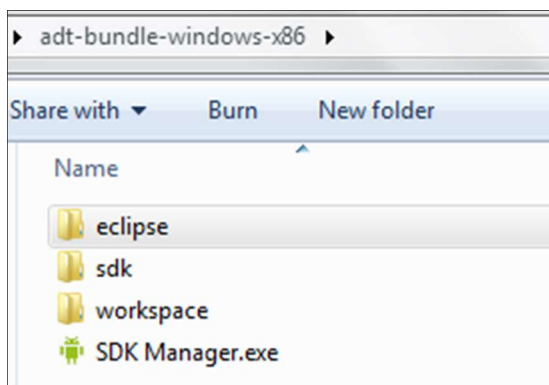
Software Usage Process

Android Developer Tools (ADT) Bundle for Windows

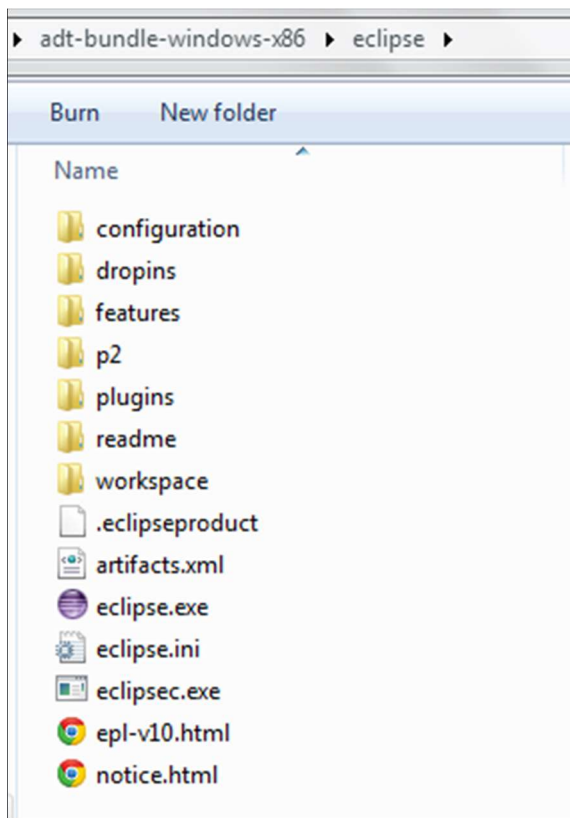
Android - Building Your First App



- 1) This tutorial is based on <http://developer.android.com/training/basics/firstapp/creating-project.html>.
- 2) The Integrated Development Software used for this tutorial (ADT) is downloadable from <http://developer.android.com/sdk/index.html#download> (32 bit edition).
- 3) Download and extract the ADT software at the step (2). The top-level directory is as shown below:



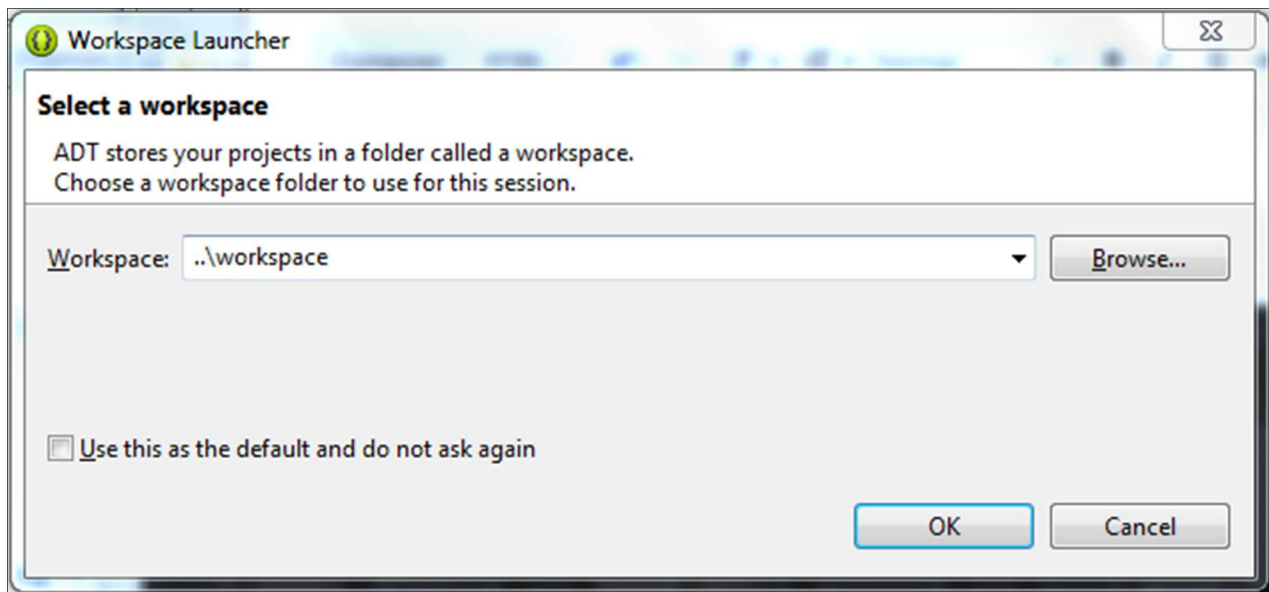
- 4) Go into eclipse directory and locate Eclipse executable file.



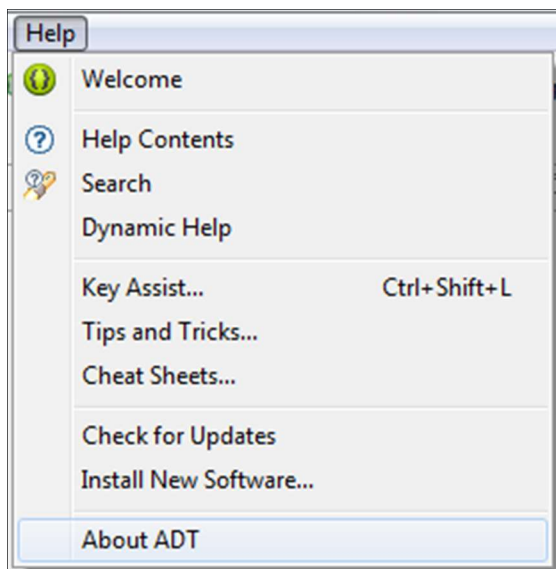
5) Run eclipse.exe. An ADT Splash Screen pops up.



6) A Workspace Launcher dialog box appears. Set your Workspace directory, preferably "../workspace") which means it is located at top level of the ADT directory. Optionally, Tick "Use this as the default and do not ask again".



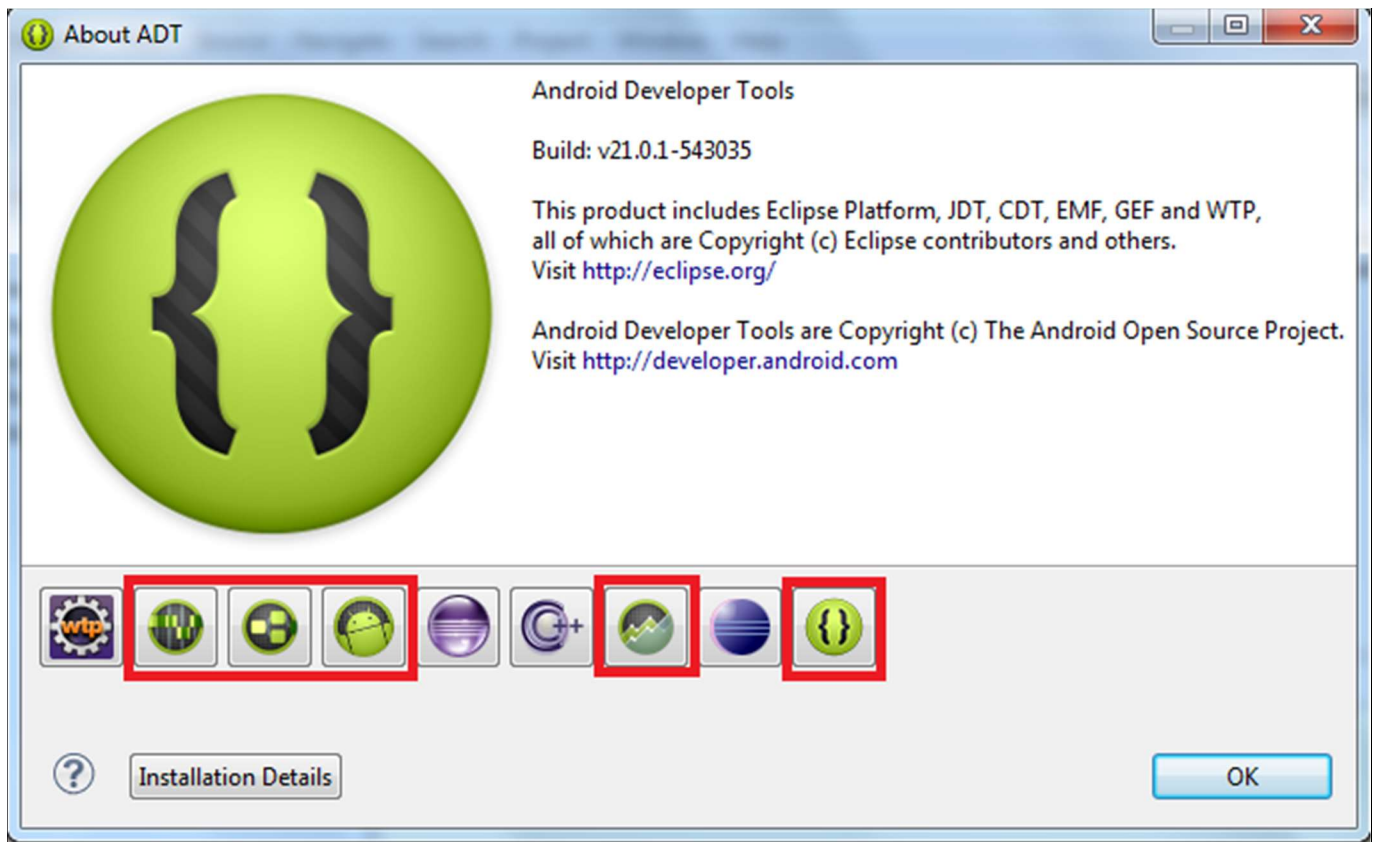
7) Click Menu/Help/About ADT.



8) The About ADT window pops up.

A number of installed components are shown as icons. The green icons are those related to Android Development kit.

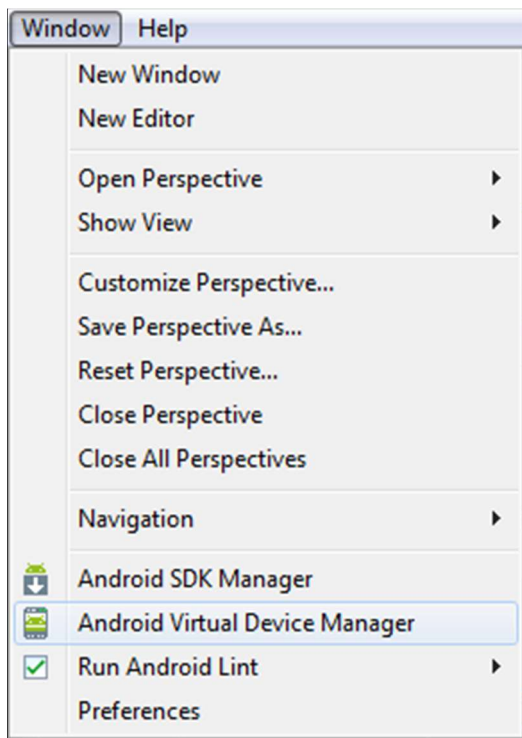
Checking the installed components is necessary during the first time running of Eclipse to ensure that you have the required Android Development kit. Without these, you cannot use Eclipse to build Android apps. Click OK.



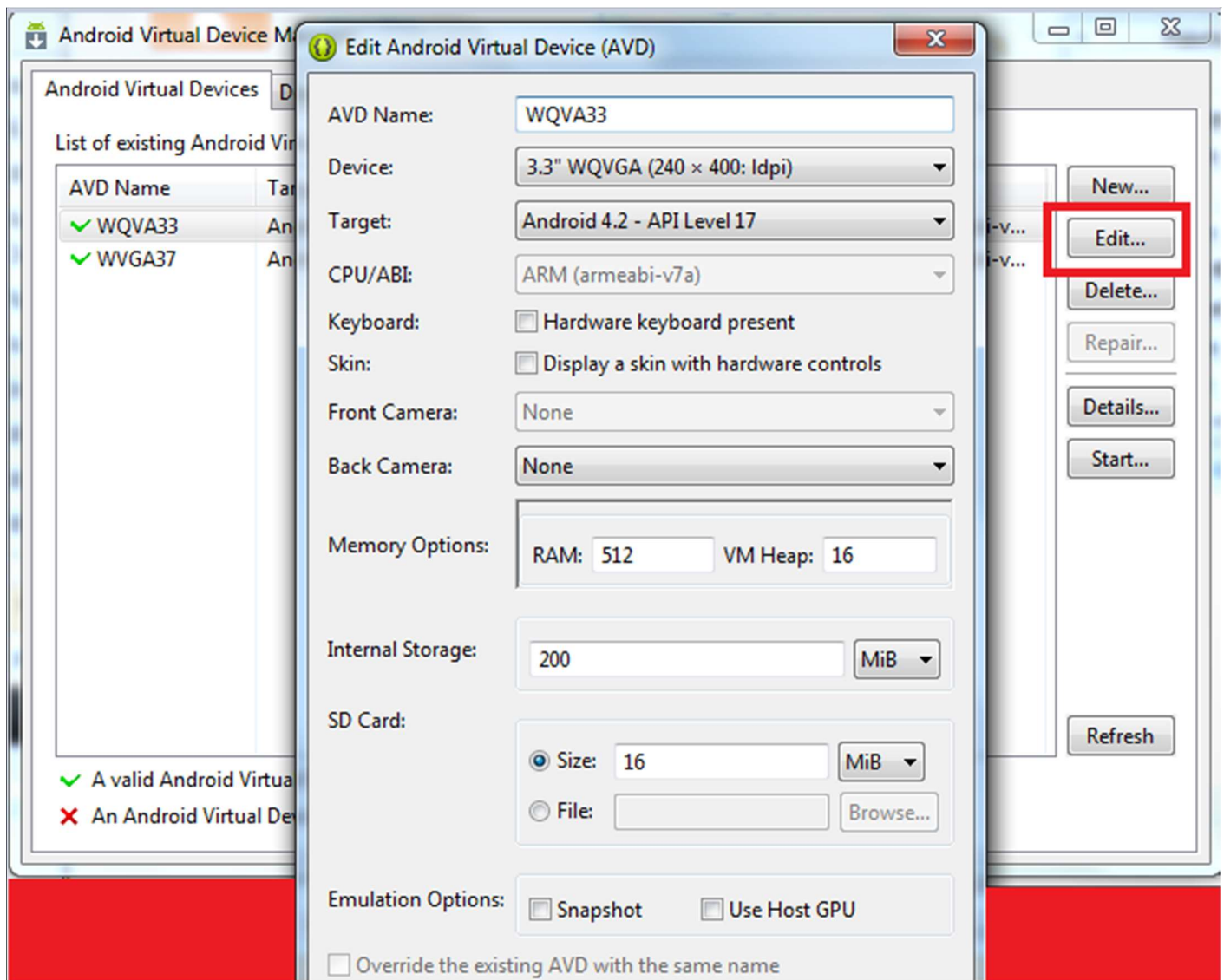
CREATING AN ANDROID EMULATOR

9) Before you develop an Android app, you need to setup an Android Emulator so that you can test your app on it.

10) Click Menu Window/Android Virtual Device Manager.

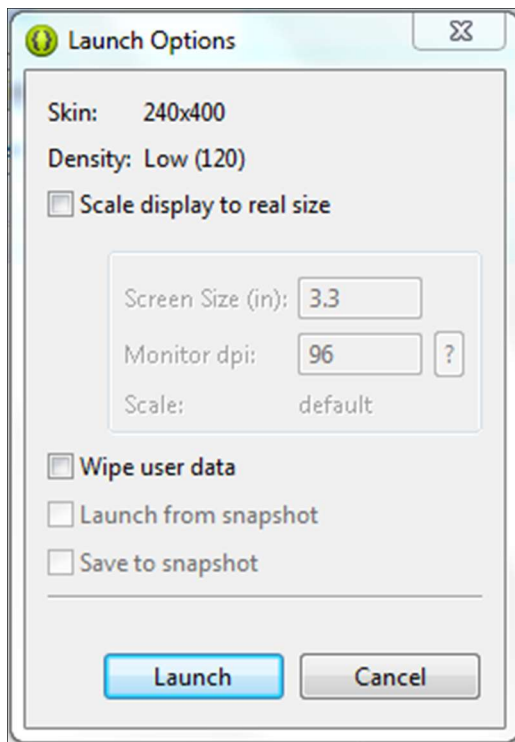


- 11) Set the machine configuration.
- 11.1) Click "Edit..."
- 11.2) Enter the required details. Click OK.
- 11.3) To test the machine, click Start...

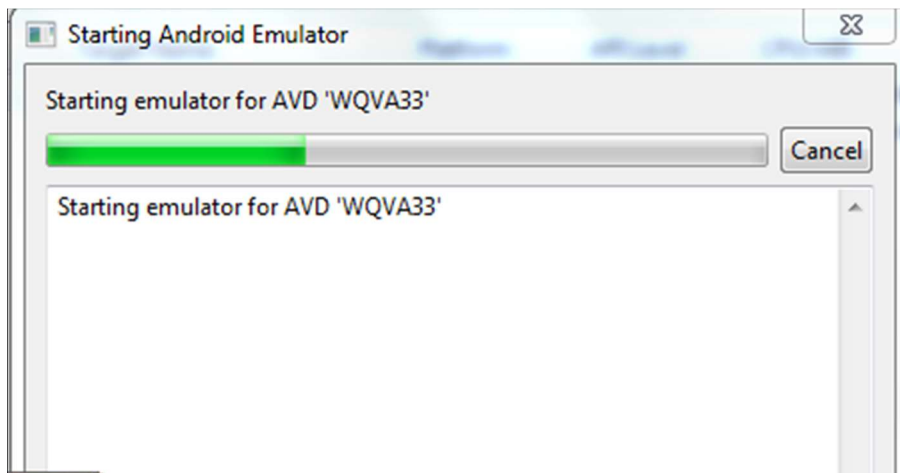


12) Set Launch options.

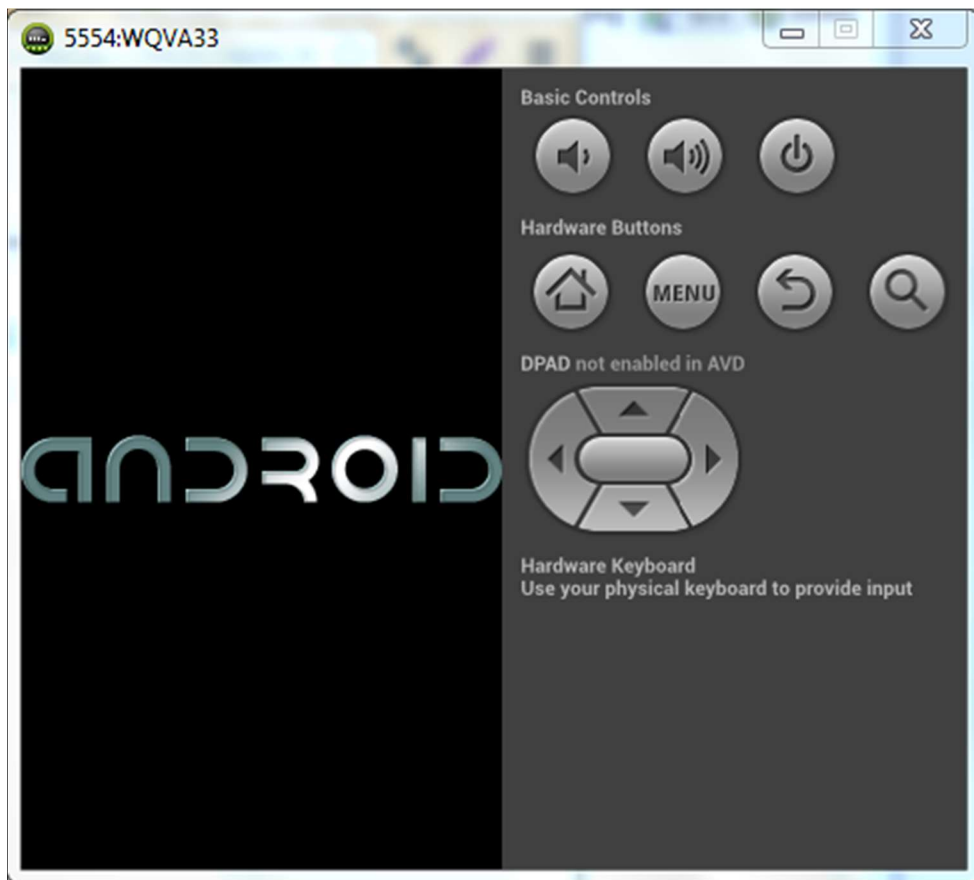
12.1) Accept the default and click Launch.



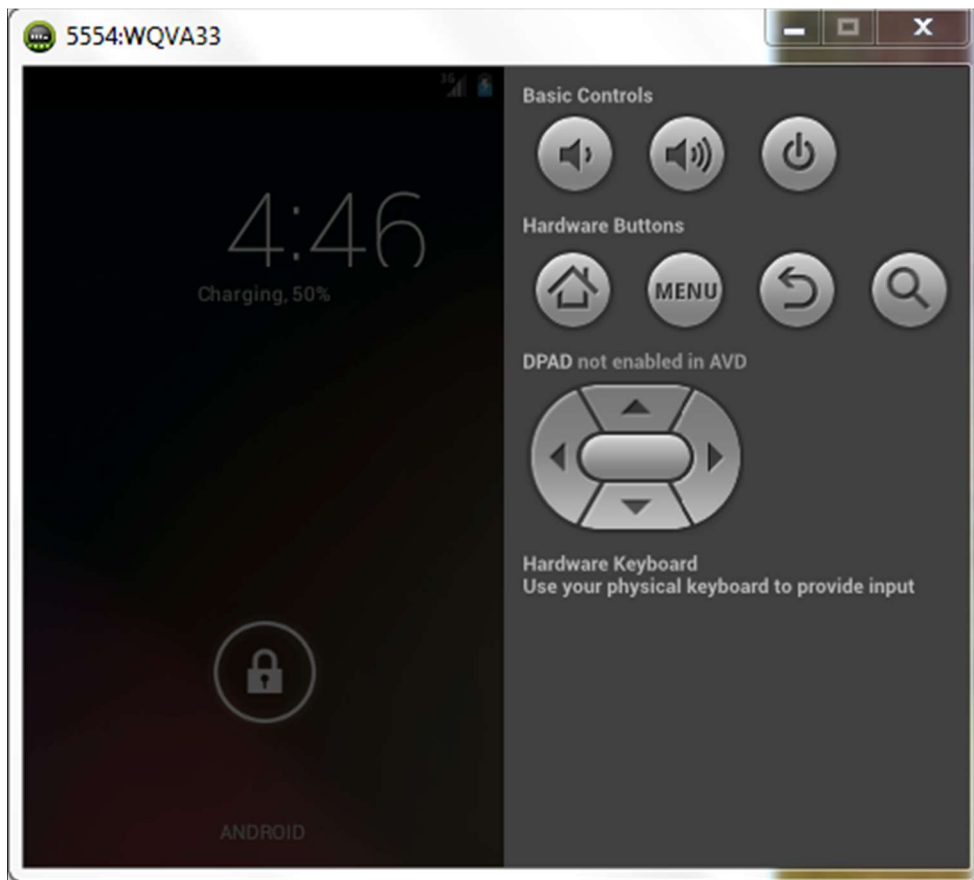
12.2) The Starting progress windows pops up.



12.3) The Android emulator starts loading.



12.4) You have to wait for logon screen to appear. Use your mouse to tap on the padlock icon and drag it to the right to unlock the machine.

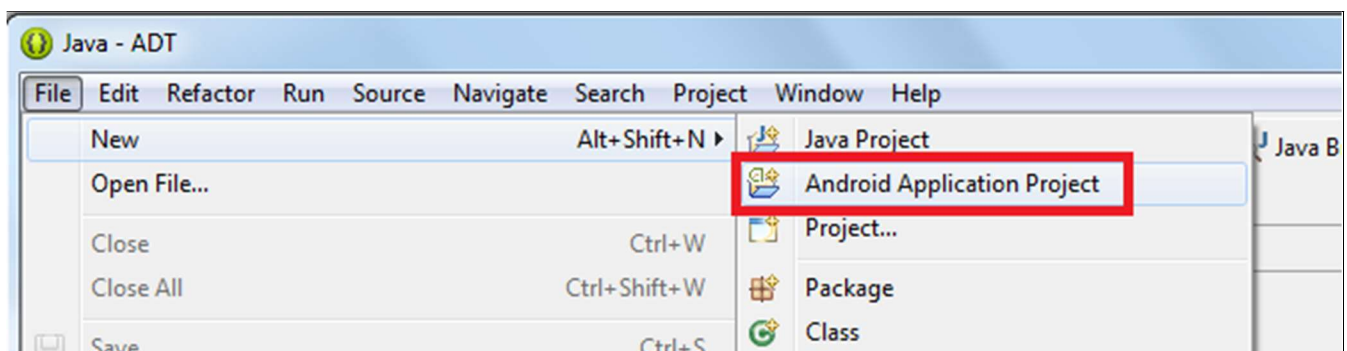


12.5) Look at the title of the window, 5554:WQVA33
 5554 is the port number of the emulator that allows it to communicate with other software.
 WQVA33 is the name given in Step (11).

13) You can leave this emulator window open while building the app.

CREATING NEW ANDROID PROJECT

14) Click Menu File/New/Android Application Project



15) Fill up the form based on the guide at <http://developer.android.com/training/basics/firstapp/creating-project.html>

New Android Application

⚠ The prefix 'com.example.' is meant as a placeholder and should not be used

Application Name:

Project Name:

Package Name:

Minimum Required SDK:

Target SDK:

Compile With:

Theme:

15.1) The explanation as stated on the above website:

- **Application Name** is the **app name that appears to users**. For this project, use "My First App."
- **Project Name** is the **name of your project directory** and the name visible in Eclipse.
- **Package Name** is the **package namespace** for your app (following the same rules as packages in the Java programming language). Your package name must be unique across all packages installed on the Android system. For this reason, it's generally best if you use a name that begins with the **reverse domain name of your organization** or publisher entity. For this project, you can use something like "com.example.myfirstapp." However, **you cannot publish your app on Google Play using the "com.example" namespace**.
- **Minimum Required SDK** is **the lowest 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 (as discussed in [Supporting Different Platform Versions](#)). Leave this set to the default value for this project.

- **Target SDK** indicates **the highest version of Android** (also using the [API level](#)) with which you have tested with your application.

As new versions of Android become available, you should test your app on the new version and update this value to match the latest API level in order to take advantage of new platform features.

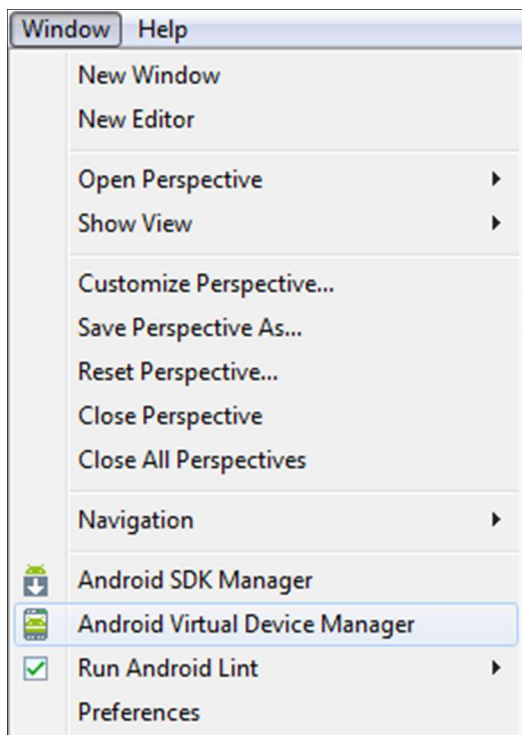
- **Compile With** is the **platform version against which you will compile your app**. By default, this is set to the latest version of Android available in your SDK. (It should be Android 4.1 or greater; if you don't have such a version available, you must install one using the [SDK Manager](#)). You can still build your app to support older versions, but setting the build target to the latest version allows you to enable new features and optimize your app for a great user experience on the latest devices.

- **Theme** specifies the **Android UI style** to apply for your app. You can leave this alone.

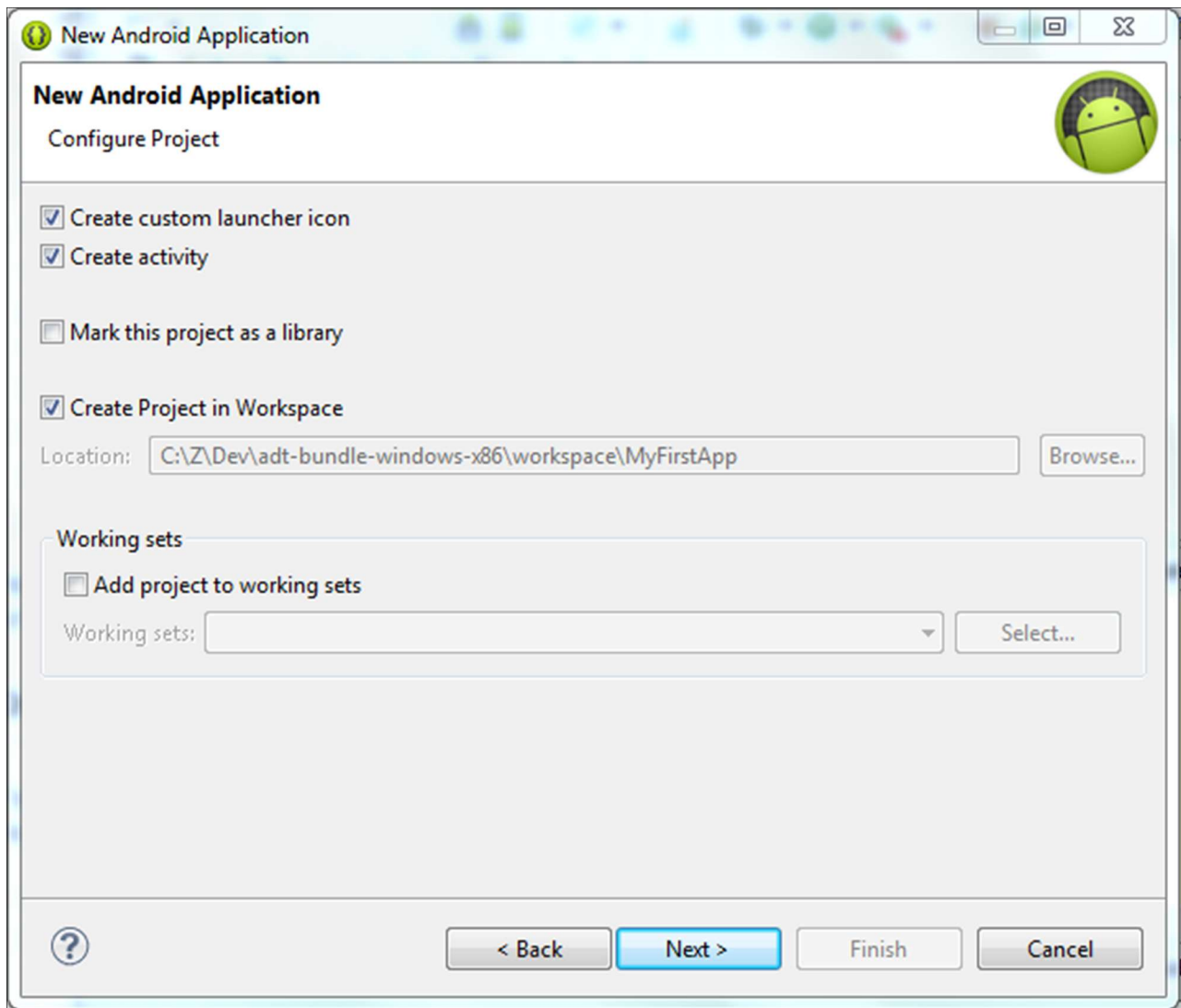
15.2) Click Next.

16) Configure New Android Application Project.

16.1) Click Menu Window/Android Virtual Device Manager.

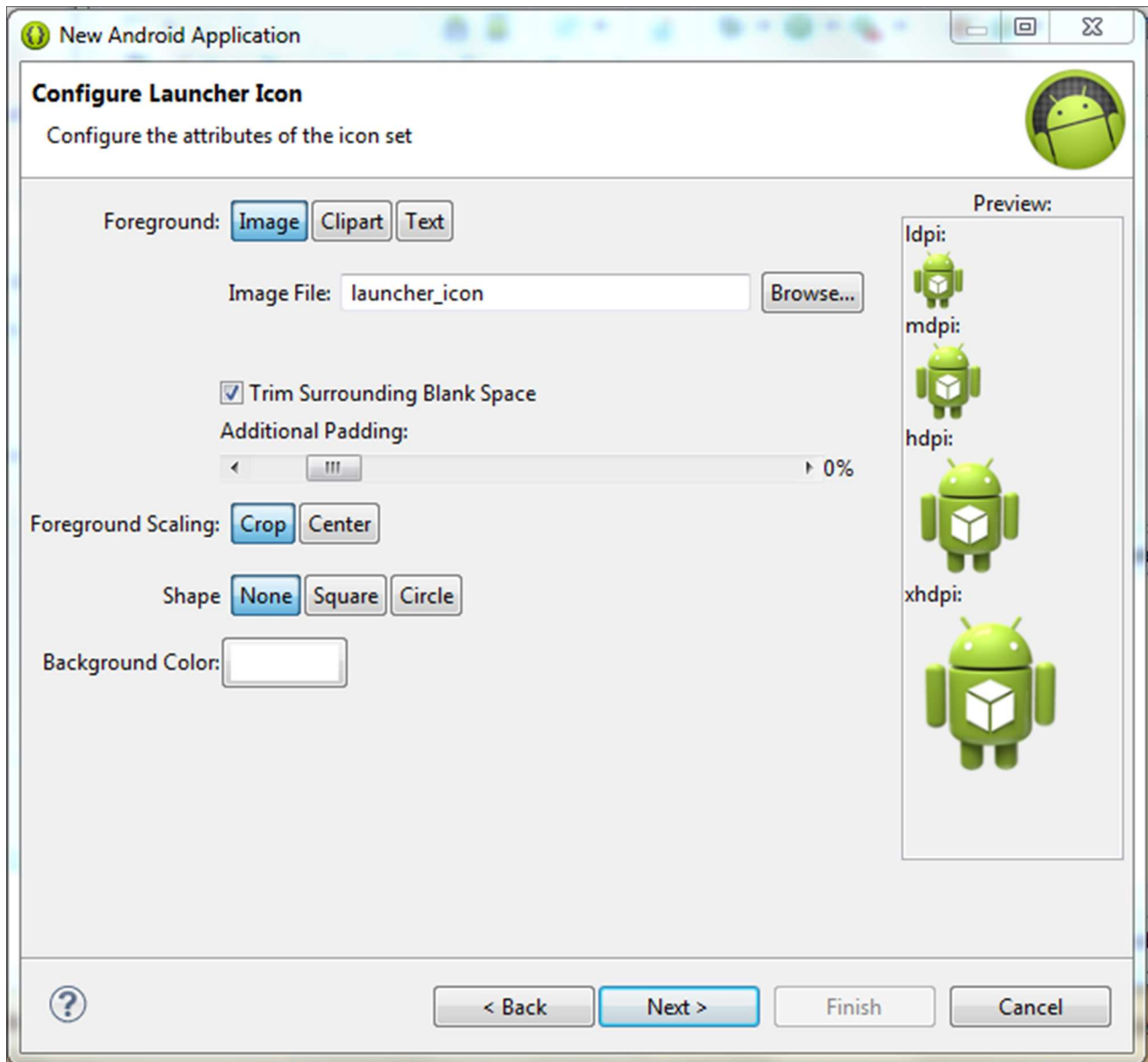


16.2) Accept the default configuration and click Next.



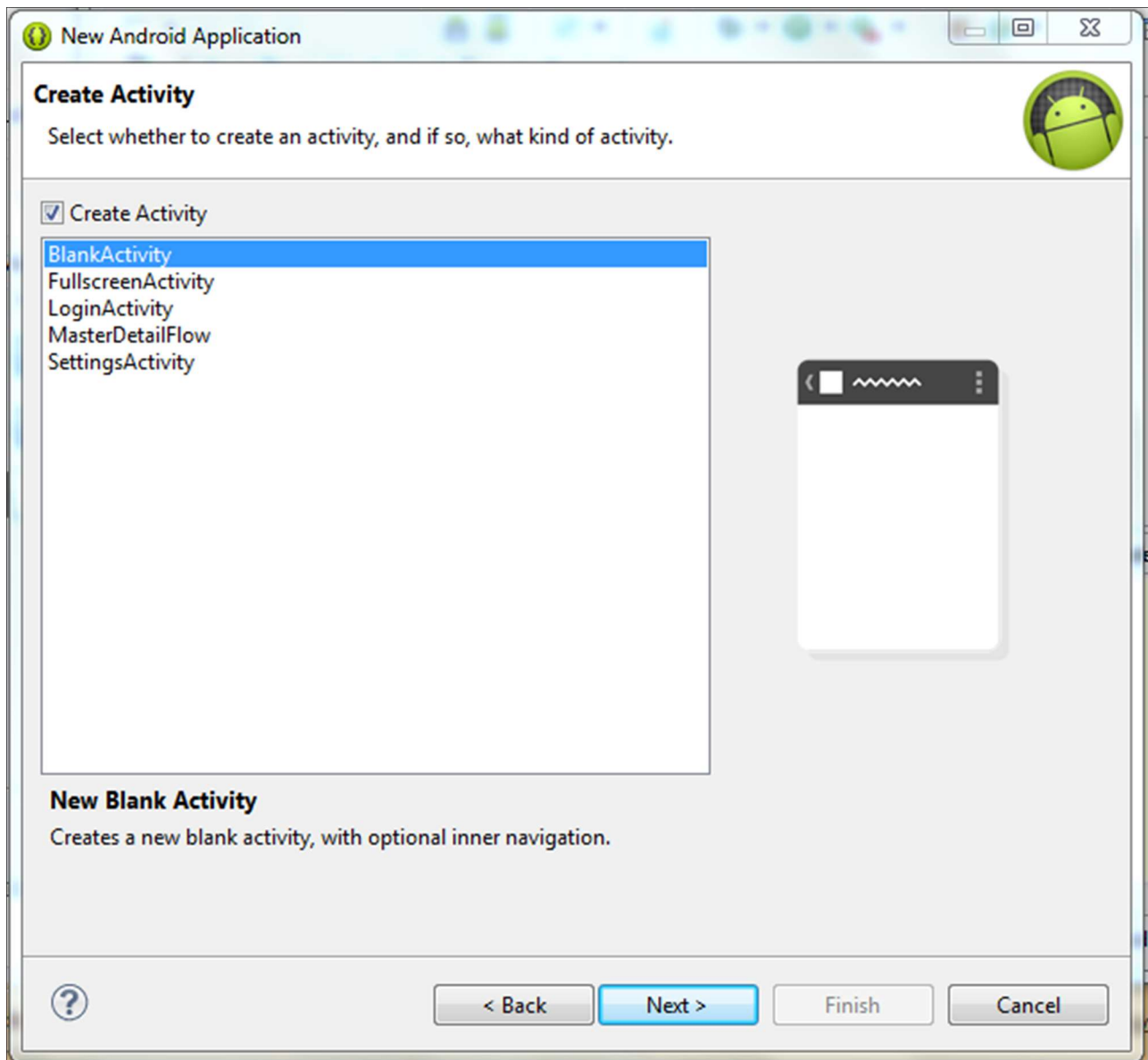
17) Configure Launcher Icons.

17.1) Accept the default and click Next.



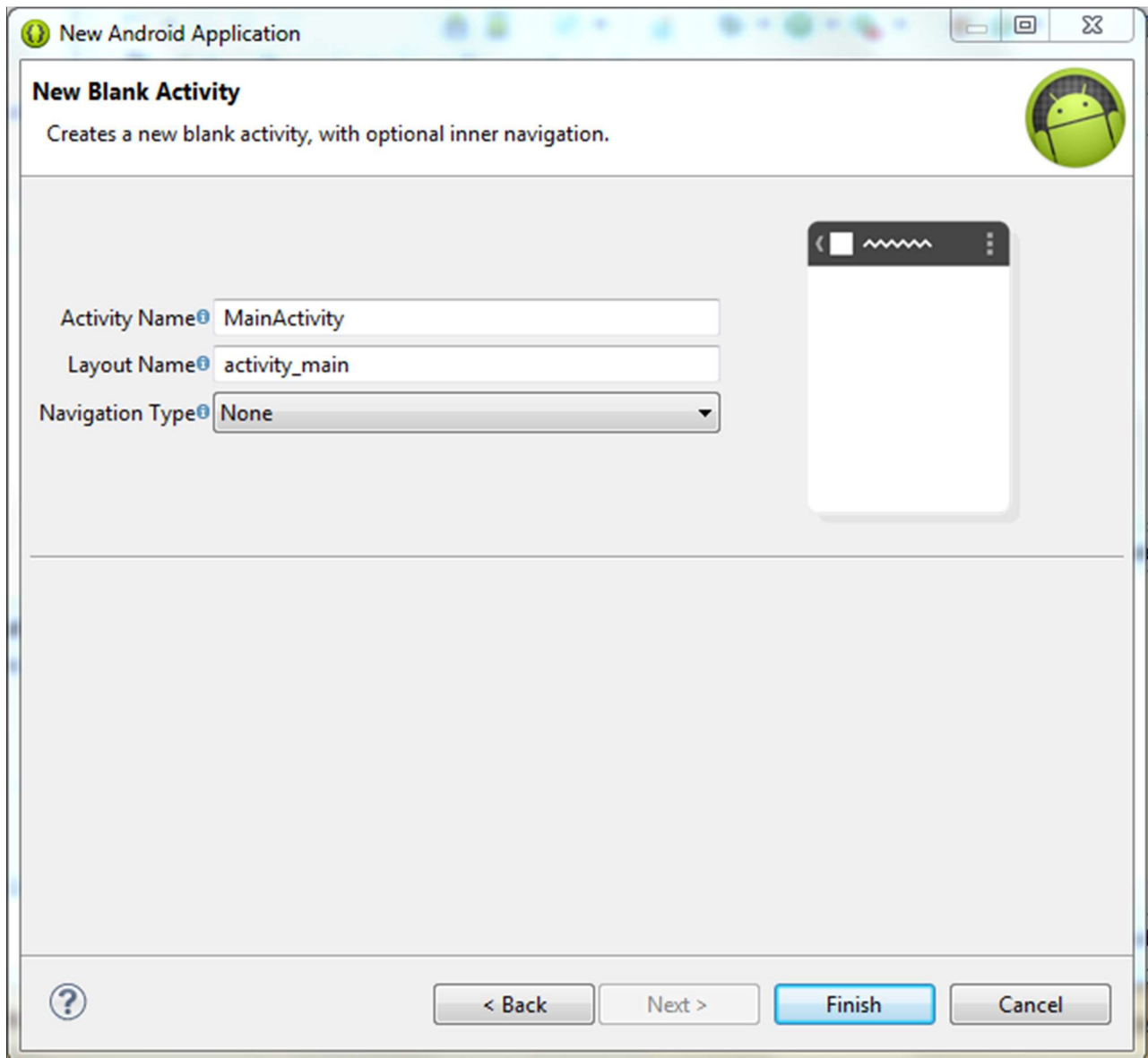
18) Create Activity.

18.1) Accept the default (Create Activity/Blank Activity) and click Next.



19) Set options for New Blank Activity

19.1) Accept the default and click Next.

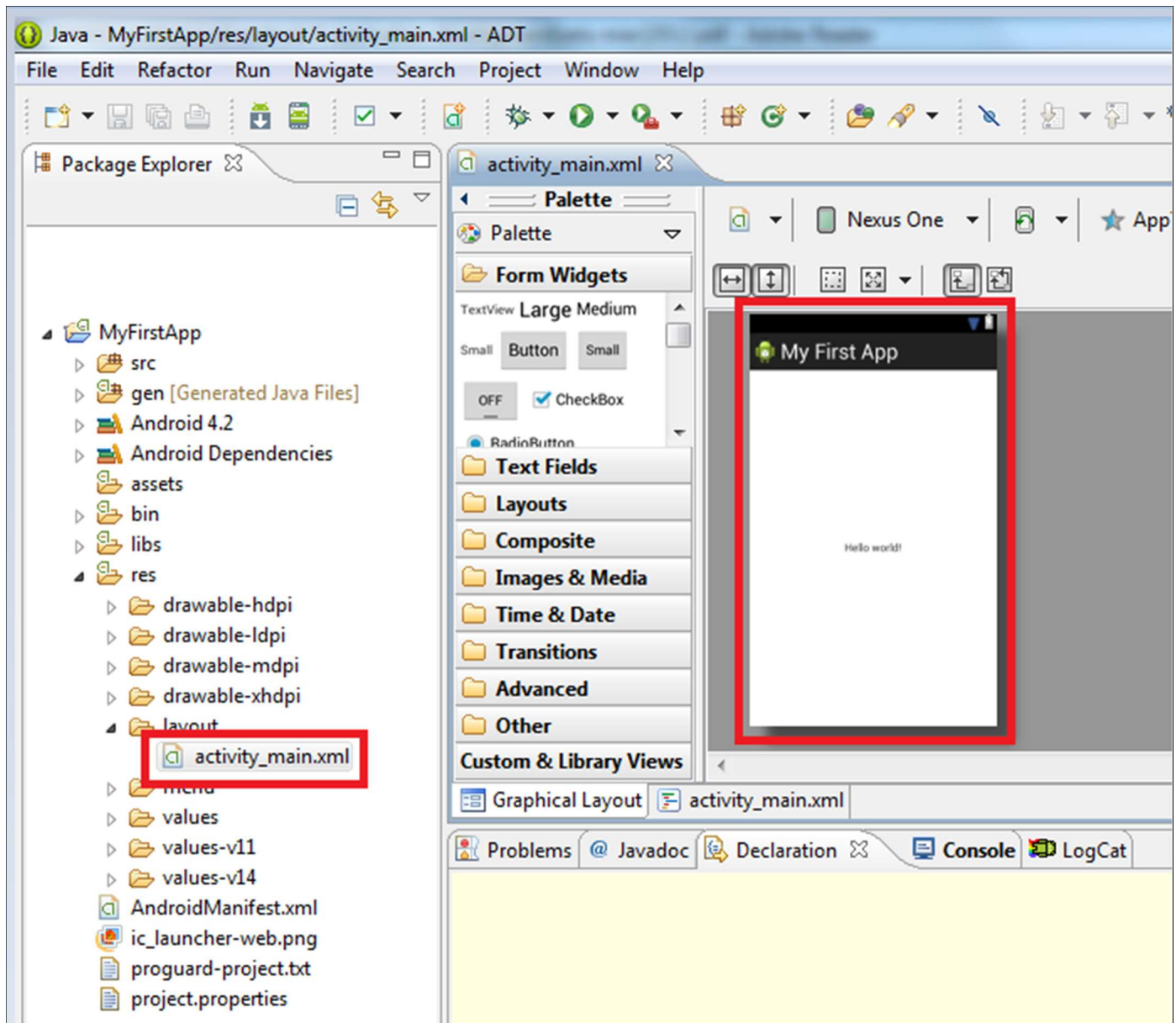


20) Project Created

20.1) Look at the Package Explorer Panel. The file activity_main.xml is highlighted.

20.2) Look at the Design Panel. The draft of the application screen layout is shown.

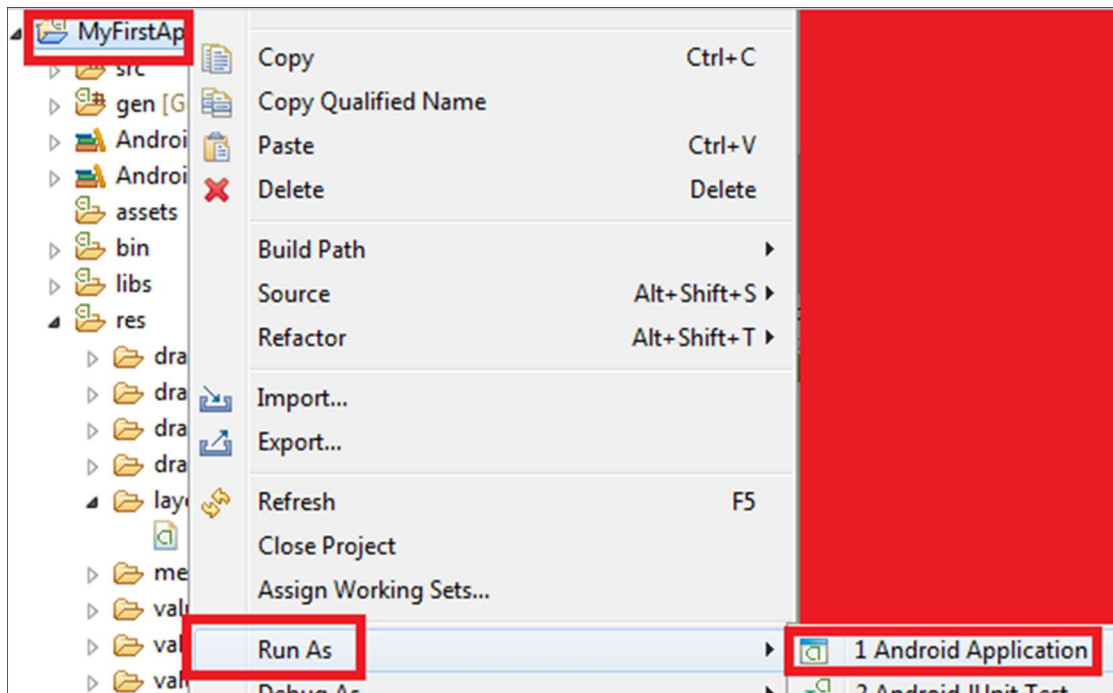
20.3) Notice the text "Hello world!" at the center of the screen layout.



21) The project creation is done.

RUNNING APP ON EMULATOR

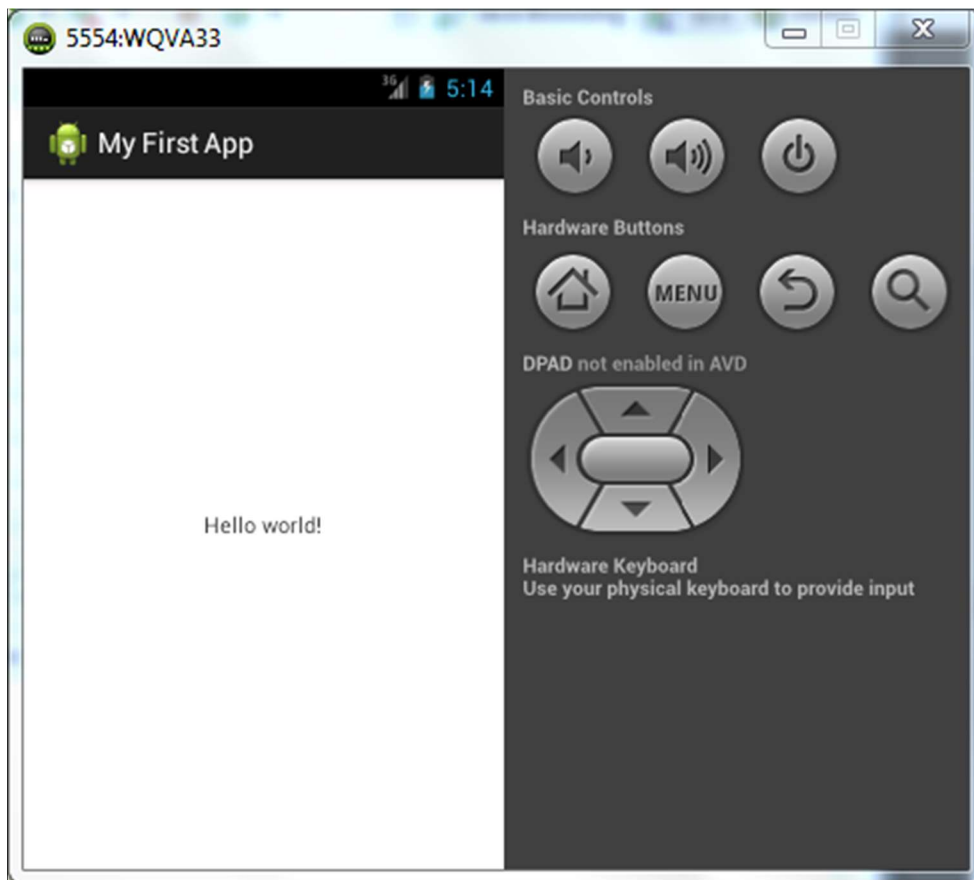
22) Right-click the Project Name. Select Run As/Android Application.



23) The app is launched to the emulator.

23.1) Notice that the look of the app screen is similar to the layout in Step (20)

23.2) Notice the name "My First App"



24) Click Return Button to exit from My First App.