

Android Studio:

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Step 1. Installation

1. Download and install Android Studio: <https://developer.android.com/studio/index.html>

Step 2. Create Your First Project

Follow these directions to create a new project:

1. Enter an application name like MyFirstApp.
2. Company Domain – This uniquely identifies your app
*The domain name is used by Android Studio to generate a package name. Your package name is just a unique identifier for your application in the Google Play Store. Even if you create multiple apps, your company domain would be the same. For our purposes, you can just follow along with the textbook (Head First Android Development) and use theirs **com.hfad**. You will notice the package name becoming **com.hfad.myfirstapp**.*
3. Project location – directory where you would like your project to be kept
4. Under the next page, **Select the form factors your app will run on**, check the box for **Phone and Tablet**.
5. For **Minimum SDK**, select **API 15** (This means that any phone or tablet that runs the app must have API 15 installed – which most do).
6. Leave all of the other options (TV, Wear, and Glass) unchecked and click **Next**.
7. Choose **Empty** Activity (while my video uses basic – our textbook uses Empty so let's stick with that since it's a little simpler)
8. Under **Customize the Activity** screen, you can keep the **Activity Name** as *MainActivity* and the **Layout Name** as *activity_main*.
9. Click the **Finish** button to create the project.

Step 3: Review the files:

Your Android project is now a basic "Hello World" app that contains some default files. Take a moment to review the most important of these:

Click on Project on the left-hand side. Some important files:

A. `app/res/layout/activity_main.xml`

This XML layout file is for the activity you added when you created the project with Android Studio. Additionally, it contains some settings and a TextView element to display "Hello World!" Android Studio presents this file with both a [text view](#) and a [preview](#) of the screen UI.

B. `app/java/hfad.com.myfirstapp/MainActivity.java`

When you select the file you see the class definition for the activity you created. When you build and run the app, the class starts the activity and loads the layout file that says "Hello World!"

C. `app/manifests/AndroidManifest.xml`

It describes the fundamental characteristics of the app and defines each of its components.

For more details, see <https://developer.android.com/training/basics/firstapp/creating-project.html>:

Step 4: Run on Emulator:

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 a specific device.

Create an AVD

1. Launch the Android Virtual Device Manager by selecting **Tools > Android > AVD Manager**.
2. On the AVD Manager main screen, click **Create Virtual Device**.
3. In the Select Hardware window, select a device configuration, such as Nexus 5x, then click **Next**.

4. You need to choose a system image for an API level that's compatible with the app you're building. As an example, if you want your app to work on a minimum of API level 15, choose a system image for *at least* API level 15. We're going to use a system image for API level 22. Choose the first option for Marshmallow 23 x86 with a target of Android 6.0. Then click on the Next button
5. Leave as is and click **Finish**.
6. Click the  button under actions on the virtual device you just created to launch the emulator. Have a little patience and it should come up.
7. Once the emulator comes up (you see an android device on your computer), in **Android Studio**, click **Run**  from the toolbar.

Now you should see the hello world screen appear that is in your app you just created!

For additional instructions go to:

<https://developer.android.com/training/basics/firstapp/running-app.html>