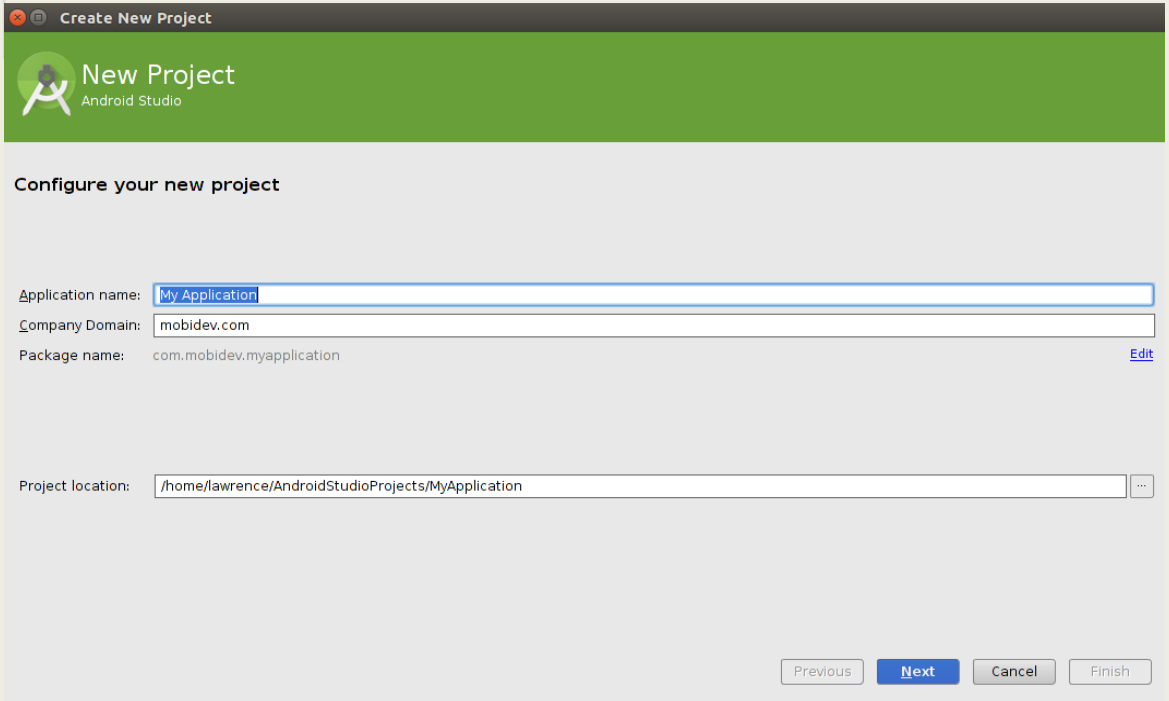
Android Concepts

Getting started with Android Studio

Create project

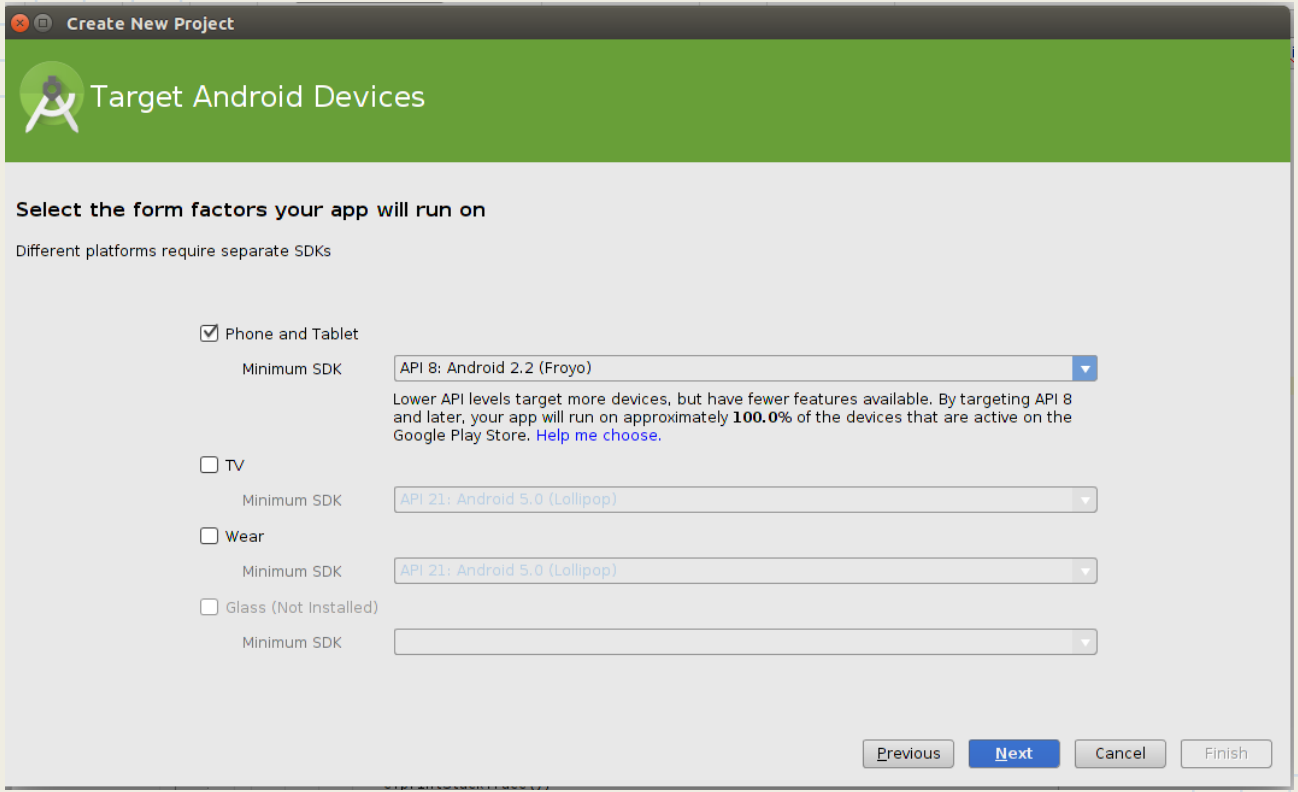


You can ignore and leave the default details or:

- Give your project a name
- configure a custom domain name
- change location of project

Then click next

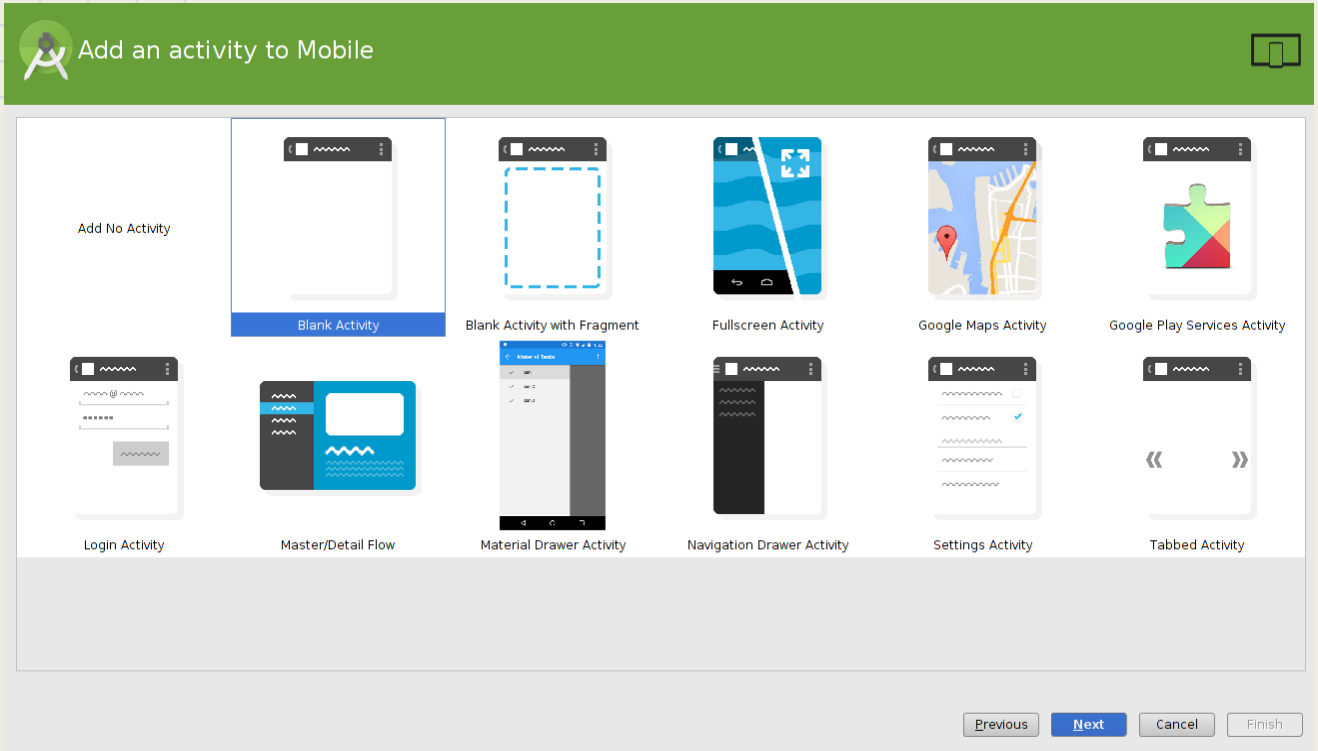
Target Android Devices



Pick the devices that you are targeting

Version	Codename	API	Distribut
2.2	Froyo	8	0.4%
2.3.3 - 2.3.7	Gingerbread	10	6.4%
4.0.3 - 4.0.4	Ice Cream Sandwich	15	5.7%
4.1.x	Jelly Bean	16	16.5%
4.2.x		17	18.6%
4.3		18	5.6%
4.4	KitKat	19	41.4%
5.0	Lollipop	21	5.0%

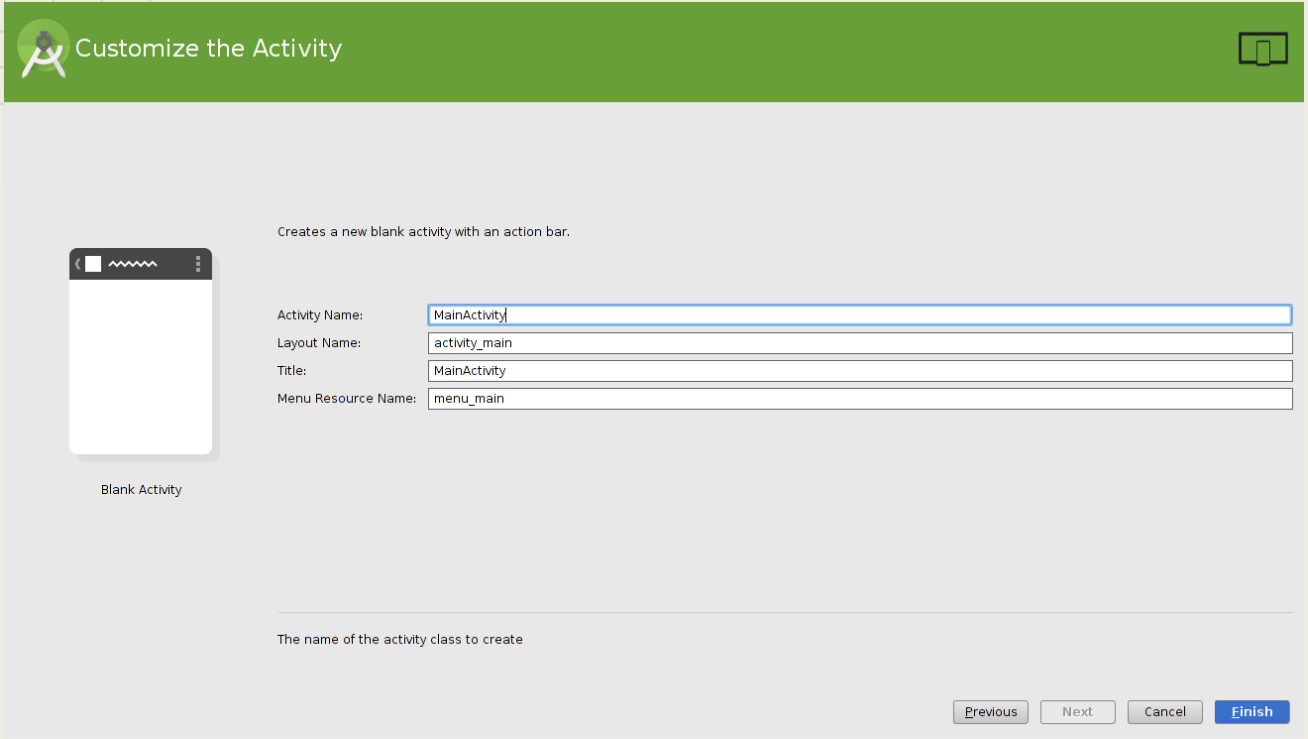
Select a template



Choose a template according to your need. You can customize it later

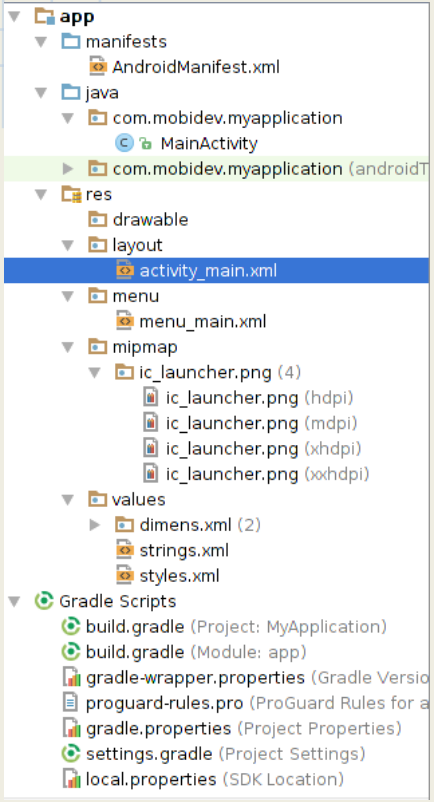
You can also have custom templates

Customize the Activity



Assign your custom names for different components

Basic Project Structure



Your java classes will reside in the java directory and the res directory is where you keep all the resources: layouts, images etc

App permissions will go in the AndroidManifest.xml file

NB: The mipmap folders are for placing your app icons in only. Any other drawable assets you use should be placed in the relevant drawable folders as before.

Project level gradle script is used to define repositories and dependencies.

AndroidManifest.xml

Describes the fundamental characteristics of the app and defines each of its components.

app/build.gradle

Android Studio uses Gradle to compile and build app.

Two gradle files: project level and module level

NB: We will focus more on module level gradle file. This is also where you set build dependencies, including defaultConfig settings.

defaultConfig

- compileSdkVersion
  The platform version against which you will compile your app.
  By default set to the latest version of Android available in your SDK.

- applicationId
  Fully qualified package name for your application that you specified during new project workflow.

- minSdkVersion
  The earliest version of the Android SDK that your app supports.

- targetSdkVersion
  Indicates the highest version of Android with which you have tested your application

Project-Level Gradle

```
// Top-level build file where you can add configuration options common to all sub-projects/modules.

buildscript {
    repositories {
        jcenter()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:1.1.0'

        // NOTE: Do not place your application dependencies here; they belong
        // in the individual module build.gradle files
    }
}

allprojects {
    repositories {
        jcenter()
    }
}
```

Module-Level Gradle

```
apply plugin: 'com.android.application'

android {
    compileSdkVersion 21
    buildToolsVersion "21.1.2"

    defaultConfig {
        applicationId "com.mobidev.myapplication"
        minSdkVersion 8
        targetSdkVersion 21
        versionCode 1
        versionName "1.0"
    }
    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
        }
    }
}

dependencies {
    compile fileTree(dir: 'libs', include: ['*.jar'])
    compile 'com.android.support:appcompat-v7:21.0.3'
}
```

Resourceful links

https://developer.android.com/about/dashboards/index.html?utm_source=suzunone#Platform

http://stackoverflow.com/questions/28065267/mipmap-vs-drawable-folders

Creating an Android Project: https://developer.android.com/training/basics/firstapp/creating-project.html

Android Tutorial for Beginners: http://www.raywenderlich.com/78574/android-tutorial-for-beginners-part-1