

Making Mobile Apps

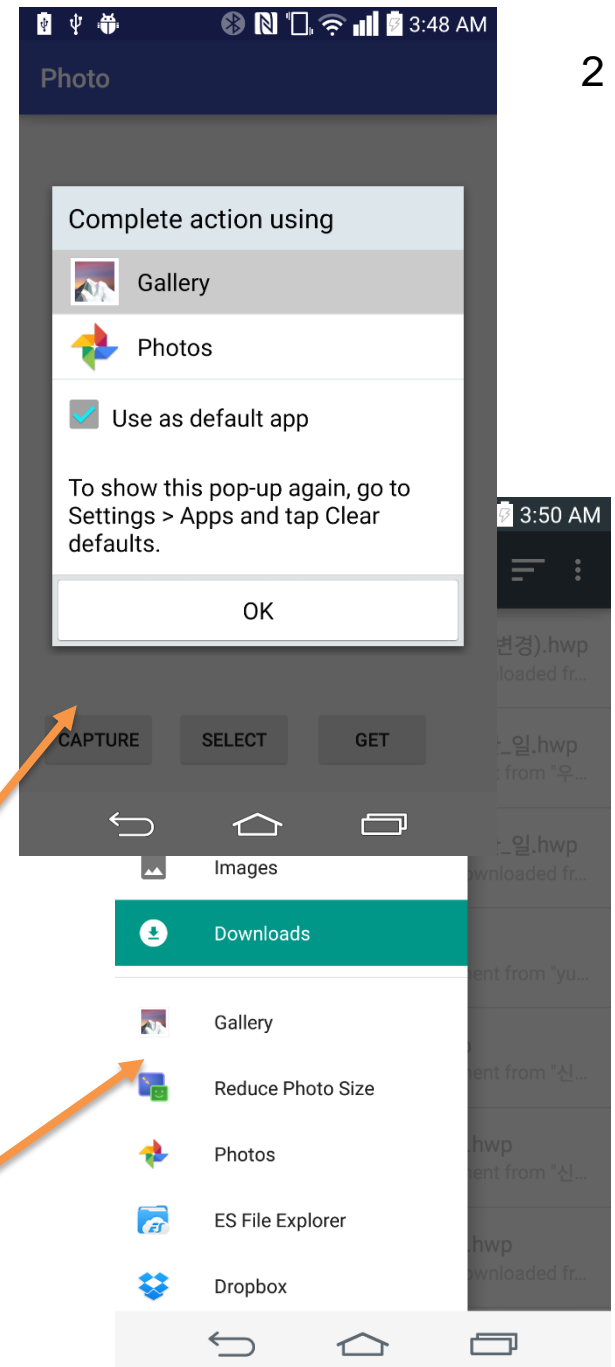
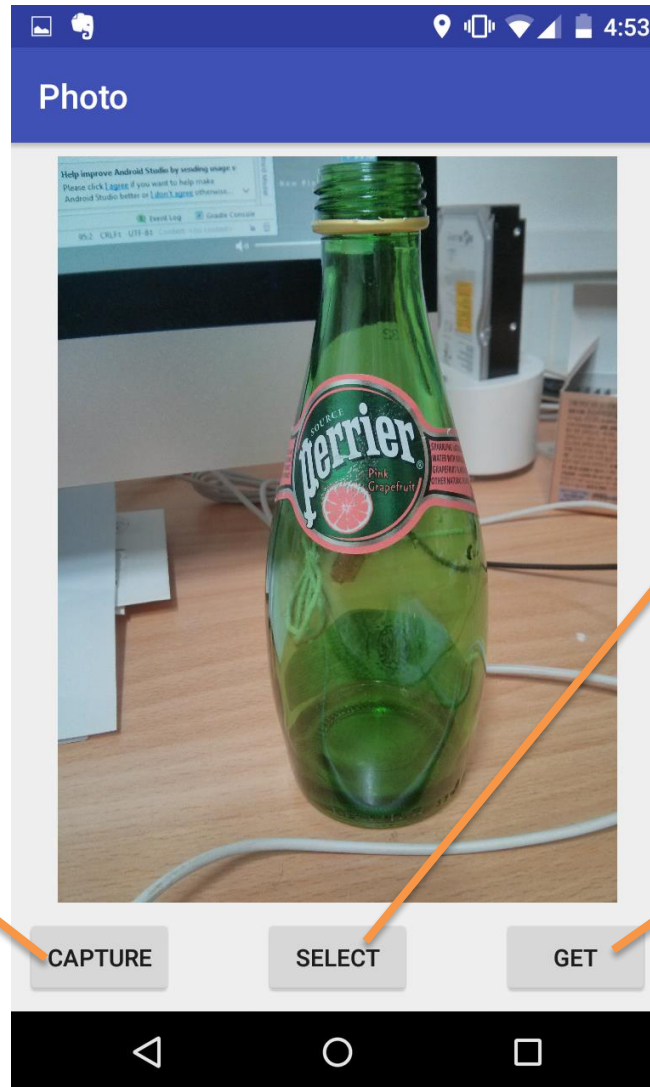
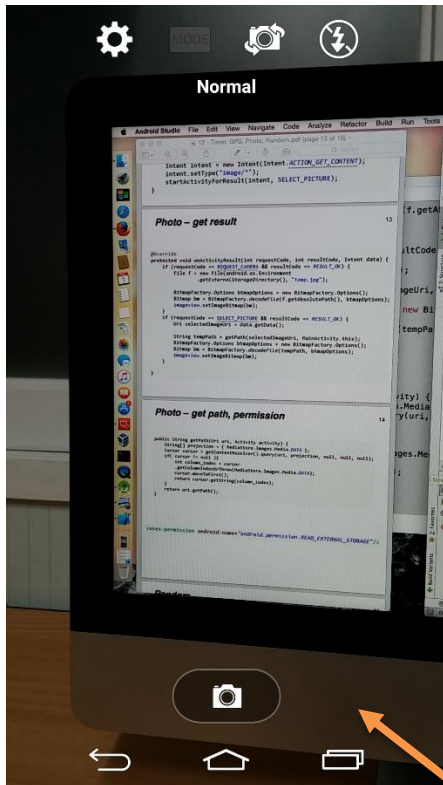
Lec 11. Take Photo



Ewha Womans University

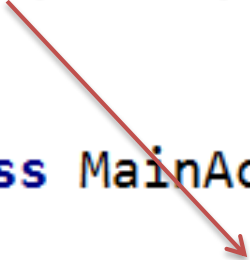
Photo – capture or select

2



ID(code) for Camera/Select Activity request

3



```
class MainActivity : PermissionsActivity() {  
  
    val CAMERA = 1  
    val SELECT = 2  
  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_main)  
  
        get_permission()  
    }  
}
```

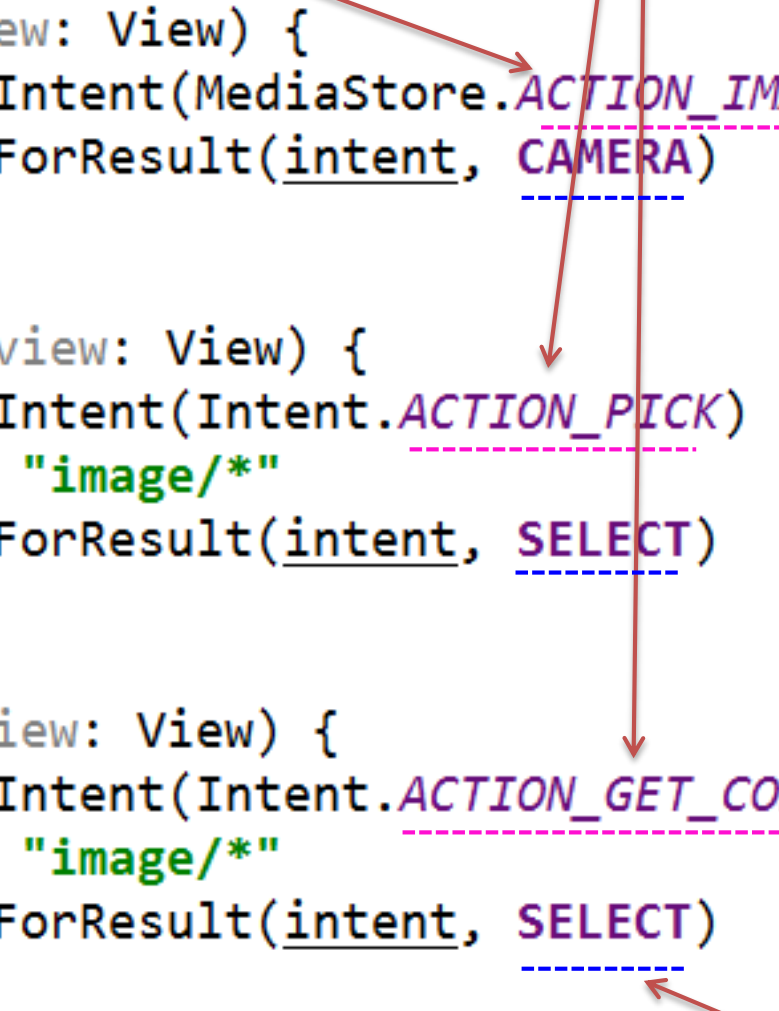
Get permission

```
fun get_permission() {  
    requestPermissions(arrayOf(Manifest.permission.CAMERA,  
        Manifest.permission.READ_EXTERNAL_STORAGE,  
        Manifest.permission.WRITE_EXTERNAL_STORAGE), object : PermissionCallback {  
        override fun permissionGranted() {  
            super.permissionGranted()  
            Log.v("Call permissions", "Granted")  
        }  
  
        override fun permissionDenied() {  
            super.permissionDenied()  
            Log.v("Call permissions", "Denied")  
        }  
    })  
}
```

1 camera intent, 2 photo get intents

5

```
fun take_photo(view: View) {  
    var intent = Intent(MediaStore.ACTION_IMAGE_CAPTURE)  
    startActivityForResult(intent, CAMERA)  
}  
  
fun select_photo(view: View) {  
    var intent = Intent(Intent.ACTION_PICK)  
    intent.type = "image/*"  
    startActivityForResult(intent, SELECT)  
}  
  
fun get_content(view: View) {  
    var intent = Intent(Intent.ACTION_GET_CONTENT)  
    intent.type = "image/*"  
    startActivityForResult(intent, SELECT)  
}
```

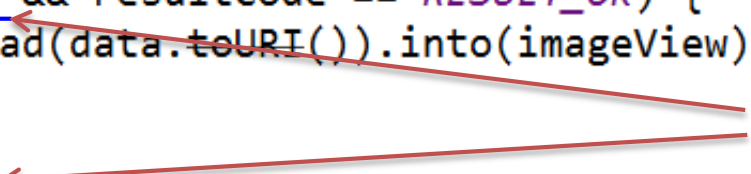


Request code

Load Image

6

```
override fun onActivityResult(requestCode: Int, resultCode: Int, data: Intent) {  
    if (requestCode == CAMERA && resultCode == RESULT_OK) {  
        Picasso.with(this).load(data.toURI()).into(imageView)  
    }  
  
    if (requestCode == SELECT && resultCode == RESULT_OK) {  
        Picasso.with(this).load(data.data).into(imageView)  
    }  
}
```



Request code

We need a permission (in Manifest)

7

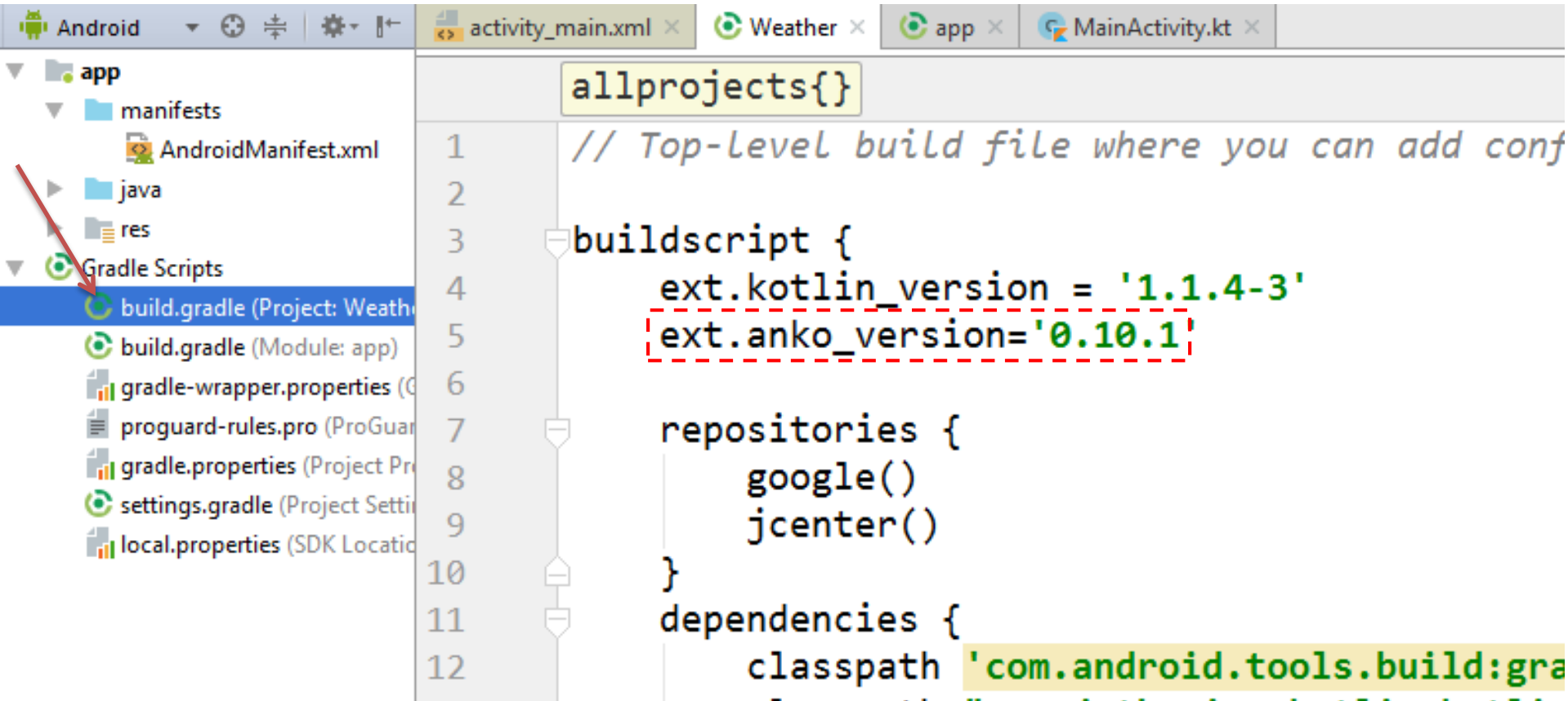
The screenshot shows the AndroidManifest.xml file in an IDE. The code is as follows:

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3     package="com.mjkim.photo">
4
5     <uses-permission android:name="android.permission.CAMERA"/>
6     <uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE"/>
7     <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"/>
8
9     <application
10         android:allowBackup="true"
11         android:icon="@mipmap/ic_launcher"
12         android:label="Photo"
13         android:roundIcon="@mipmap/ic_launcher_round"
14         android:supportRtl="true"
15         android:theme="@style/AppTheme">
16         <activity android:name=".MainActivity">
17             <intent-filter>
18                 <action android:name="android.intent.action.MAIN" />
19
20                 <category android:name="android.intent.category.LAUNCHER" />
21             </intent-filter>
22         </activity>
23     </application>
24
25 </manifest>
```

<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE"/>

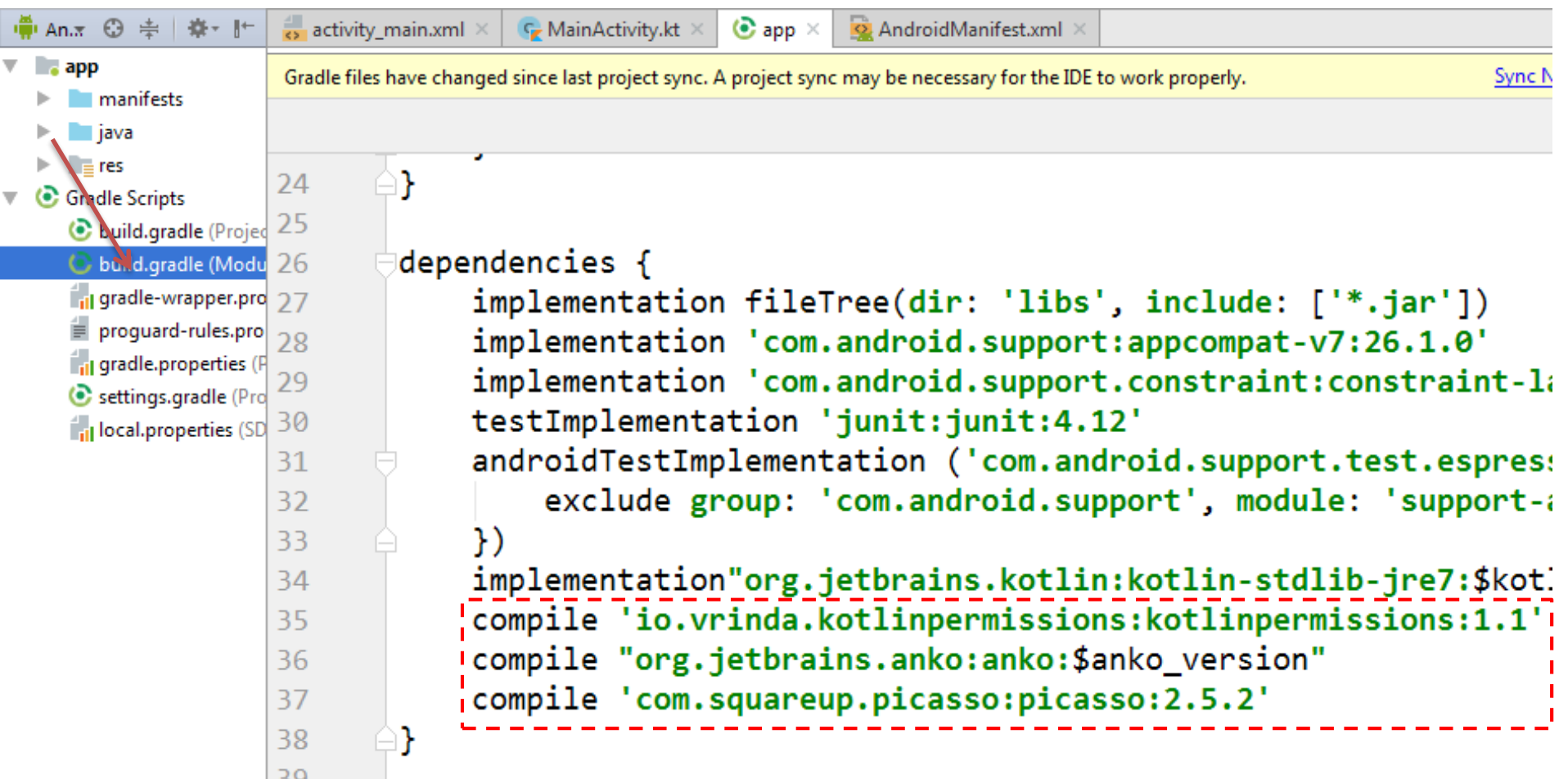
We need Anko, Picasso, ...

8



The screenshot shows the Android Studio interface. On the left, the 'Gradle Scripts' folder is expanded, and 'build.gradle (Project: Weather)' is selected. A red arrow points to this file. The main editor displays the content of 'build.gradle (Project: Weather)'. The file starts with 'allprojects{', followed by a comment '// Top-level build file where you can add configurations'. The 'buildscript' block contains 'ext.kotlin_version = '1.1.4-3'' and 'ext.anko_version='0.10.1'', with the latter highlighted by a red dashed box. The 'repositories' block lists 'google()' and 'jcenter()'. The 'dependencies' block contains 'classpath 'com.android.tools.build:gradle:2.3.3''. The 'MainActivity.kt' file is also open in the background.

```
allprojects{  
    // Top-level build file where you can add configurations  
  
    buildscript {  
        ext.kotlin_version = '1.1.4-3'  
        ext.anko_version='0.10.1'  
    }  
  
    repositories {  
        google()  
        jcenter()  
    }  
  
    dependencies {  
        classpath 'com.android.tools.build:gradle:2.3.3'  
    }  
}
```

activity_main.xml x MainActivity.kt x app x AndroidManifest.xml x

Gradle files have changed since last project sync. A project sync may be necessary for the IDE to work properly. [Sync Now](#)

app

- manifests
- java
- res
- Gradle Scripts
 - build.gradle (Project)
 - build.gradle (Module) **Selected**
 - gradle-wrapper.properties
 - proguard-rules.pro
 - gradle.properties (Project)
 - settings.gradle (Project)
 - local.properties (Module)

```
24 }
25
26 dependencies {
27     implementation fileTree(dir: 'libs', include: ['*.jar'])
28     implementation 'com.android.support:appcompat-v7:26.1.0'
29     implementation 'com.android.support.constraint:constraint-layout:1.0.2'
30     testImplementation 'junit:junit:4.12'
31     androidTestImplementation ('com.android.support.test.espresso:espresso-core:2.2.2')
32         exclude group: 'com.android.support', module: 'support-annotations'
33 }
34 implementation "org.jetbrains.kotlin:kotlin-stdlib-jre7:$kotlin_version"
35 compile 'io.vrinda.kotlinpermissions:kotlinpermissions:1.1'
36 compile "org.jetbrains.anko:anko:$anko_version"
37 compile 'com.squareup.picasso:picasso:2.5.2'
38 }
```