UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE
Department of Computing Science

# SOFTWARE DESIGN AND ARCHITECTURE

Android Studio 2 to 3 Upgrade Tutorial

If you are using Android Studio 2.3 (with API 23) from our previous courses/sessions, please do the following steps to make your code works in Android Studio 3.4 (with API 26)
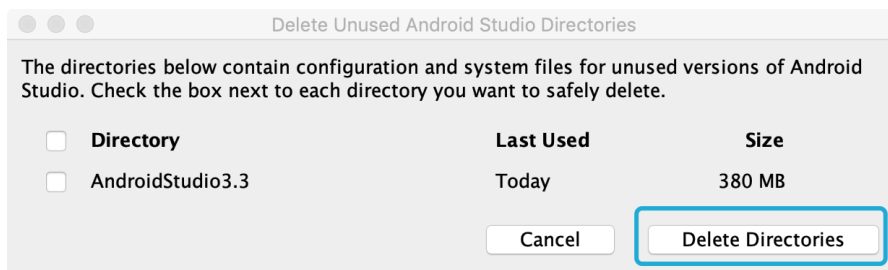
1. **Download** Android Studio (version 3.4.0 or newer). Replace the old Android Studio on your machine with the newly downloaded software.
   https://developer.android.com/studio

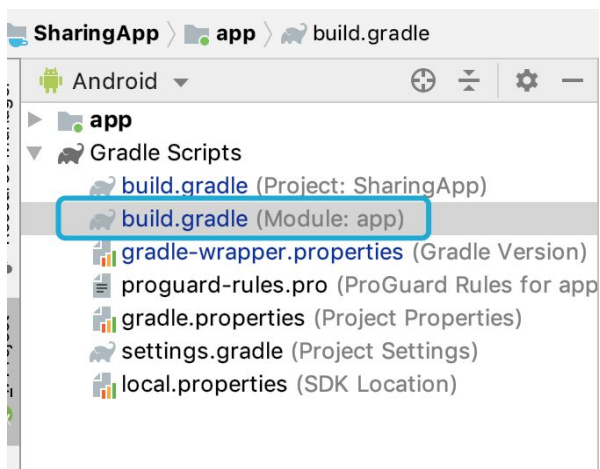2. Install and import Android Studio Settings from previous version
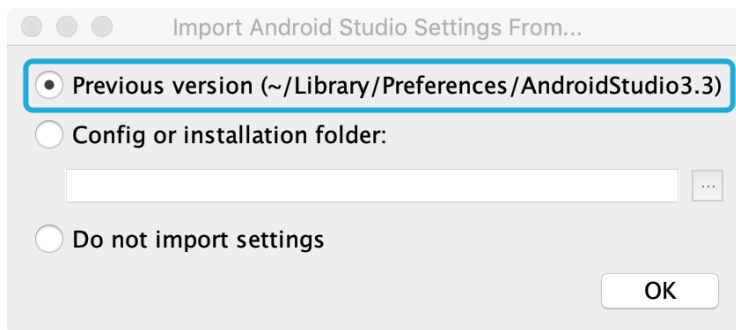
   Delete **Unused Android Studio Directories** from old versions if you are not using them anymore

   Open pre-existing code (See more detailed steps in **Android Studio Setup Tutorial - Mac/Windows,** follow until step 3**)**

3. Replace the content of **Module** level **build.gradle**

   with the following:

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

android {
    compileSdkVersion 26
    defaultConfig {
        applicationId "com.example.sharingapp"
        minSdkVersion 19
        targetSdkVersion 26
        versionCode 1
        versionName "1.0"
        testInstrumentationRunner
"android.support.test.runner.AndroidJUnitRunner"
    }
    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android.txt'),
'proguard-rules.pro'
        }
    }
}

dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])

androidTestImplementation('com.android.support.test.espresso:espresso-core:2.2.
2', {
        exclude group: 'com.android.support', module: 'support-annotations'
    })
    implementation files('src/include/gson-2.8.2-SNAPSHOT.jar')
    implementation 'com.android.support:appcompat-v7:26.1.0'
    implementation 'com.android.support:support-v4:26.1.0'
    implementation 'com.android.support:design:26.1.0'
    testImplementation 'junit:junit:4.12'
}
```
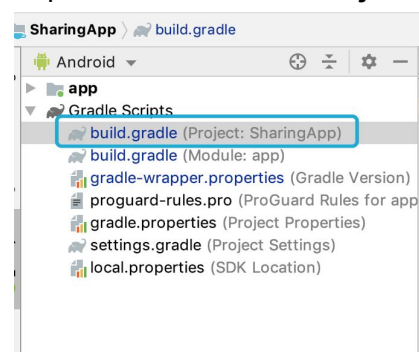
Alternatively, you can also use the content of this gist to copy the code.

4. Replace the content of **Project** level **build.gradle**

with the following:

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

buildscript {
    repositories {
        google()
        jcenter()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:3.4.0'

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

allprojects {
    repositories {
        google()
        jcenter()
    }
}

task clean(type: Delete) {
    delete rootProject.buildDir
}
```
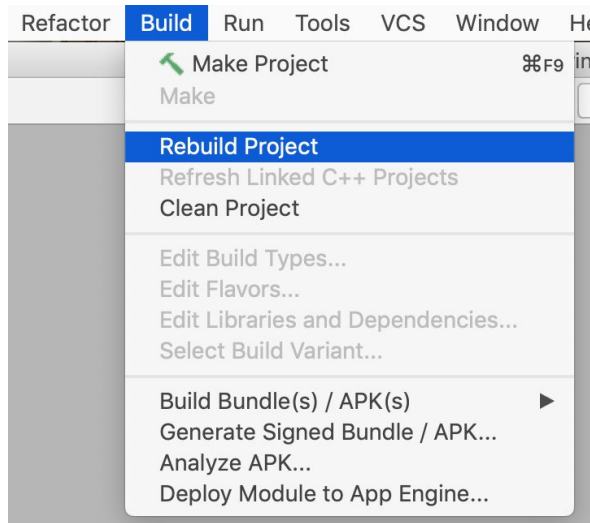
Alternatively, you can also use the [content of this gist](#) to copy the code.

5. Complete step 4 in **Android Studio Setup Tutorial - Mac/Windows.**

6. Rebuild the app by clicking: **Build** -> **Rebuild Project**

7. Complete step 5 in **Android Studio Setup Tutorial - Mac/Windows.**

8. Run the app. A this point you should be able to run the app by clicking the **play** button.