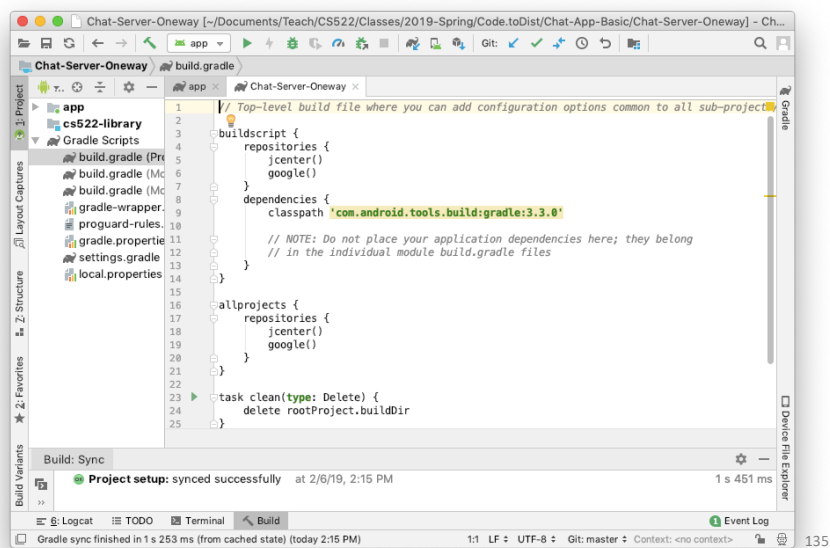


CONFIGURING BUILDS

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Project Build File



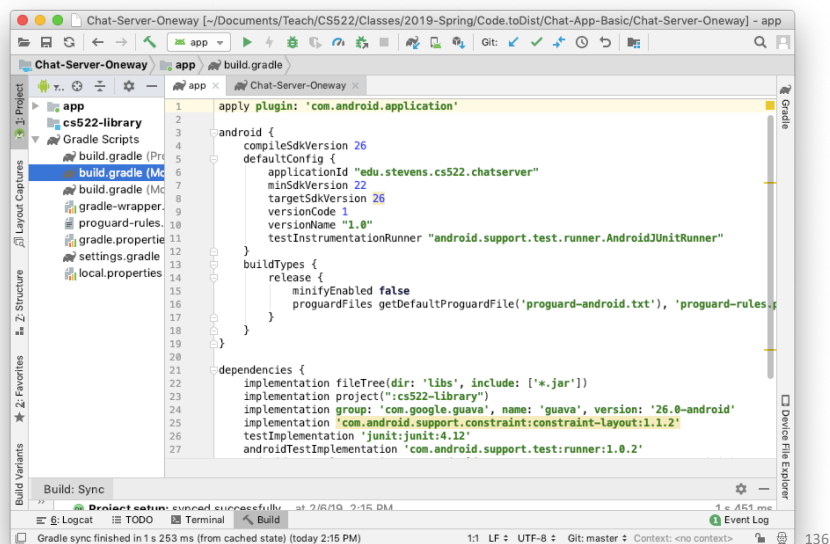
```
1 // Top-level build file where you can add configuration options common to all sub-projects/modules
2
3 buildscript {
4     repositories {
5         jcenter()
6         google()
7     }
8     dependencies {
9         classpath 'com.android.tools.build:gradle:3.3.0'
10    }
11    // NOTE: Do not place your application dependencies here; they belong
12    // in the individual module build.gradle files
13 }
14
15 allprojects {
16     repositories {
17         jcenter()
18         google()
19     }
20 }
21
22 task clean(type: Delete) {
23     delete rootProject.buildDir
24 }
25 }
```

Build: Sync
Project setup: synced successfully at 2/6/19, 2:15 PM 1 s 451 ms
Gradle sync finished in 1 s 253 ms (from cached state) (today 2:15 PM) 1:1 LF UTF-8 Git: master Context: <no context>

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Module Build File



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SDK Versions

- **compiledSdkVersion**
 - API version for compiler
- **buildToolsVersion**
 - Version of SDK (\geq compiledSdkVersion)
- **targetSdkVersion**
 - API version at runtime (\leq compiledSdkVersion)
 - Use new API without behavior changes in existing
- **minSdkVersion**
 - Provide backward compatibility (\leq targetSdkVersion)

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Example: Printing API

```
public class Printer implements IPrinter {

    public void print(Activity context, WebView view) {
        PrintManager printManager = (PrintManager)
            context.getSystemService(Context.PRINT_SERVICE);

        PrintDocumentAdapter printAdapter =
            webView.createPrintDocumentAdapter();

        // Create a print job with name and adapter instance
        String jobName = context.getString(R.string.app_name);
        printManager.print(jobName, printAdapter,
            new PrintAttributes.Builder().build());
    }
}
```

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Parallel Activity Pattern

```
public interface IPrinter {
    public void print(Activity context, WebView view);
}

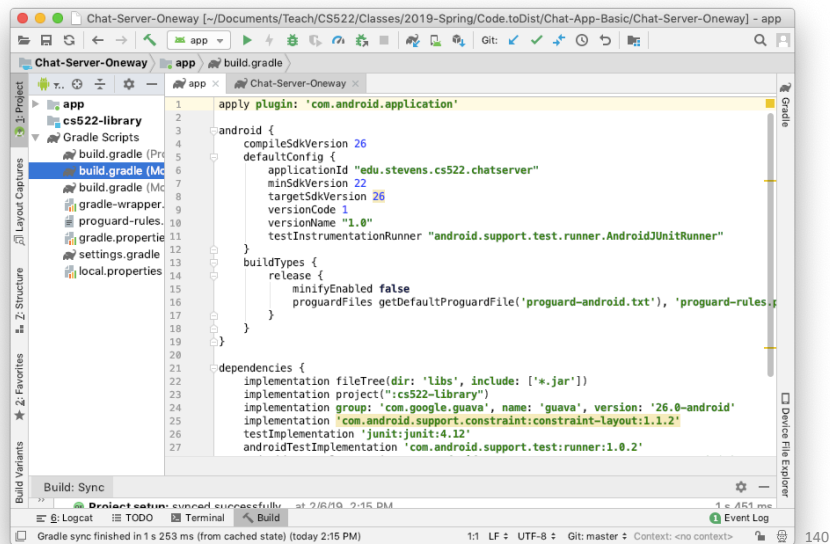
public class PrinterFactory {
    public IPrinter createPrinter() {
        IPrinter printer = null;
        if (Build.VERSION.SDK_INT
            < Build.VERSION_CODES.KITKAT) {
            printer = new PrinterDummy();
        } else {
            printer = new Printer();
        }
        return printer;
    }
}
```

```
minSdkVersion = 15
targetSdkVersion = compiledSdkVersion = 25
```

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Module Build File



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Module Build File

- Default config
 - Overrides settings in application manifest
 - Application id
- Build types
- Product flavors
- Dependencies

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Build Types

```
buildTypes {  
    release {  
        minifyEnabled false  
        proguardFiles  
            getDefaultProguardFile('proguard-android.txt'),  
            'proguard-rules.pro'  
    }  
    debug {  
        debuggable true  
    }  
}
```

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Product Flavors

```
productFlavors {  
  
    demo {  
        applicationId "com.buildsystemexample.app.demo"  
        versionName "1.0-demo"  
    }  
  
    full {  
        applicationId "com.buildsystemexample.app.full"  
        versionName "1.0-full"  
    }  
}
```

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Product Flavors

```
productFlavors {
    pro {
        applicationId = "com.example.my.pkg.pro"
    }
    free {
        applicationId = "com.example.my.pkg.free"
    }
}

buildTypes {
    debug {
        applicationIdSuffix ".debug"
    }
}
```

Package name must still be specified in
manifest file e.g. for R file
`package="com.example.app"` 144

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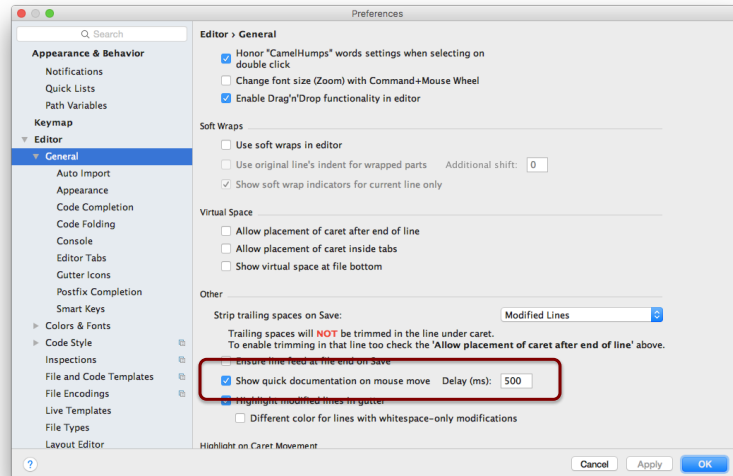
Module Build File: Dependencies

- Local module
`implementation project(":lib")`
- Remote binary dependency (Maven)
`implementation`
`'com.android.support:appcompat-v7:19.0.1'`
- Local binary dependency (jar files)
`implementation fileTree(dir: 'libs',`
`include: ['*.jar'])`

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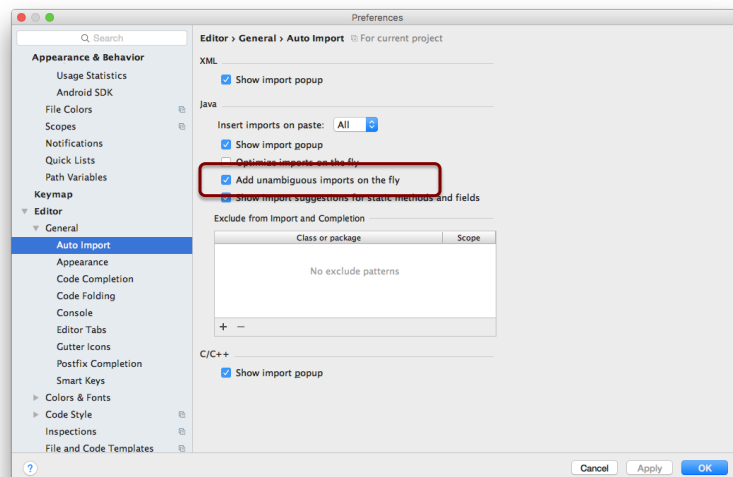
Show Docs on Mouse Over



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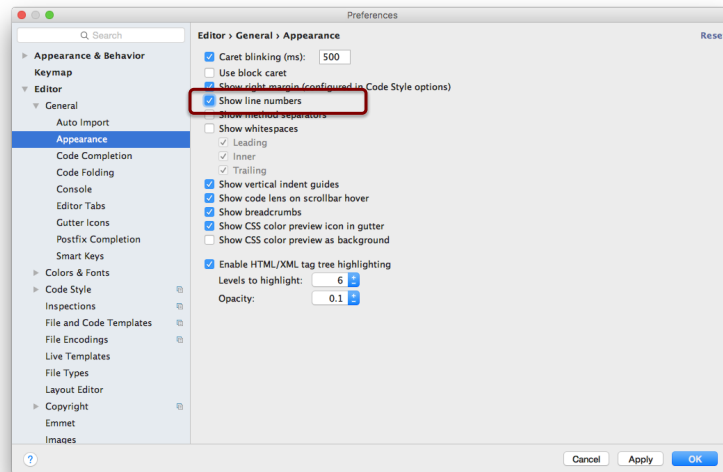
Automatically Resolve Imports



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Show Line Numbers



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