Android to iOS migration estimation
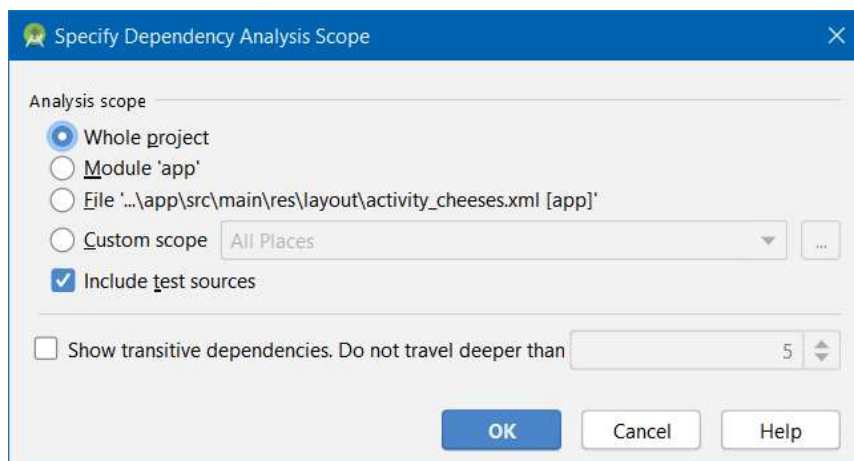
ReflectCode offers the automated source-to-source translation service for migrating Android app source code to iOS platform. Before starting with actual porting, our clients like to know migration code coverage and tentative porting cost. We can quickly provide this information by analysing the project dependency and LOC. This document provides steps to extract dependency and LOC information from Android Studio Project.
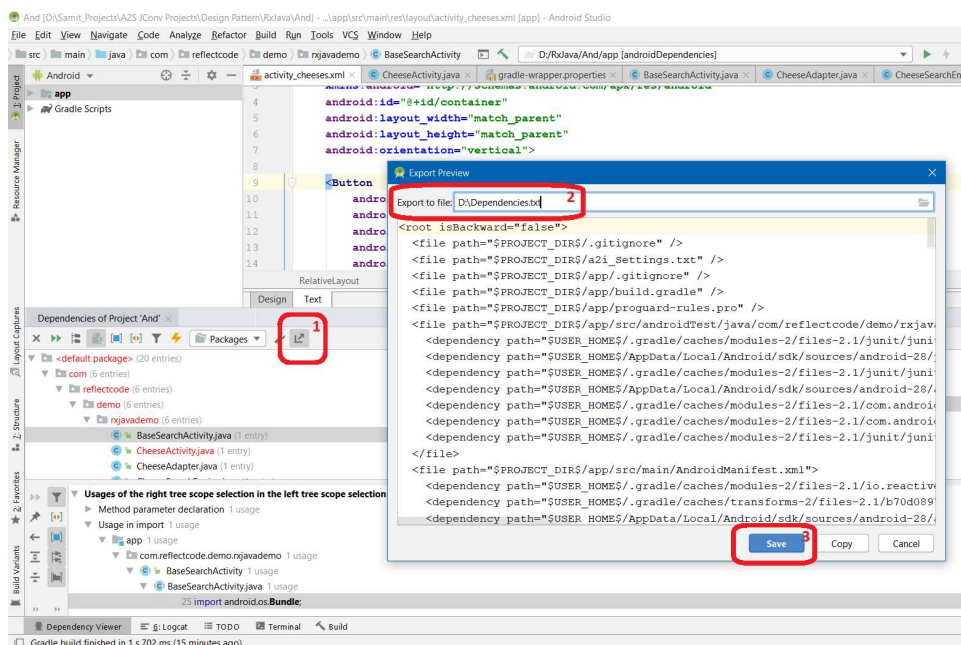
Porting Coverage Estimation

*Note : If any source code file contains **unused import statements** then those are reported as dependency, even if its not used. This may lead to inaccurate report. Such un-used import statements should be removed. For this right click on your project in Android Studio, then click on the "Optimize Imports" menu. Also please backup your project before making any changes.*

Steps -

1) Open project in Android Studio
2) Select menu : *Analyze -> Analyze Dependencies*

3) Select 'Whole project' and click on OK
4) If project includes source code for **external library**, then it should be removed from scope
5) Open the dependency viewer window from menu – *View -> Tool Windows -> Dependency Viewer*
6) Export the dependencies to text file by clicking on in viewer window –

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This will generate the list of dependency path for each file in project –

```
<root isBackward="false">
 <file path="$PROJECT_DIR$/app/src/main/java/com/reflectcode/demo/rxjavademo/BaseSearchActivity.java">
  <dependency path="$USER_HOME$/.gradle/caches/…/jars/classes.jar!/android/support/v7/app/AppCompatActivity.class" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/widget/EditText.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/widget/Toast.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/java/util/Collections.java" />
  <dependency path="$USER_HOME$/.gradle/caches/…/jars/classes.jar!/android/support/v7/widget/RecyclerView.class" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/java/lang/String.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/content/res/Resources.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/java/lang/Override.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/java/util/Arrays.java" />
  <dependency path="$PROJECT_DIR$/app/src/main/java/com/reflectcode/demo/rxjavademo/CheeseSearchEngine.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/os/Bundle.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/widget/ProgressBar.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/java/util/List.java" />
  <dependency path="$USER_HOME$/.gradle/caches/…/jars/classes.jar!/android/support/v7/widget/LinearLayoutManager.class" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/view/View.java" />
  <dependency path="$USER_HOME$/AppData/Local/Android/sdk/sources/android-28/android/widget/Button.java" />
  <dependency path="$PROJECT_DIR$/app/src/main/java/com/reflectcode/demo/rxjavademo/CheeseAdapter.java" />
 </file>
```

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Cost Estimation

To identify tentative cost, we need LOC report for your project. Please use below open source tool for this.

Source code - https://github.com/AlDanial/cloc

Download exe file from - https://github.com/AlDanial/cloc/releases

Note:
- *Use the project "/app/src/" path to CLOC.*
- *Do not use project root folder. It may include build files and produce wrong LOC report.*
- *Also do not include the source code of external libraries.*

Steps for windows -

1) Download or compile the exe and save in a folder
   E.g. folder is "C:/tools/" and name of exe file is "cloc-1.84.exe"
2) Open command prompt. "Win-key" + R, enter "cmd" and click "Ok"
3) In "cmd.exe" window enter "C:/tools/cloc-1.84.exe *<< Path to project>>*/app/src/"
4) The LOC details will be displayed on command window
5) Copy the entire text and save to text file

For more details please refer to - https://github.com/AlDanial/cloc

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