CIS 3515 Assignment 6

Instructions: Refactor your previous application to use a **single activity** along with **2 Fragments** instead of 2 activities. You will then generate a signed APK with a new version number.

1. Create a new branch of your previous assignment's git repository

   If your previous application was incomplete, email the instructor about getting a working implementation to use as a stating point.

2. Rename your SelectionActivity to **MainActivity**. Your application will no longer use the DisplayActivity, so delete it from your project (once you've moved over any code you'd like to reuse).

3. Create 2 fragment classes – SelectionFragment (your 'list' fragment), and DisplayFragment (your 'details' fragment). Your SelectionFragment will be used to click an image displayed in a RecyclerView (the same function previously performed by your SelectionActivity), and the DisplayFragment will show the image and description of a clicked image (the same function previously performed by your DisplayActivity).

4. Add two FragmentContainerView views to your main activity's layout. You can arrange these containers however you would like.

   Do not specify the fragments instances in the layout directly (remove any android:name properties from the views). Instead we will use FragmentTransactions to add them at runtime.

5. When your main activity is launched, create one instance of each of your fragment types, and place them in the two FragmentContainerView containers in your activity's layout.

6. Your SelectionFragment class must use a *Factory Function* to generate a new instance. The factory method should be provided with the collection of elements to display. Your DisplayFragment class **must not** use a factory function, since it does not need any information to set itself up when it is attached to the activity.

7. Use a **ViewModel** (along with the associated **LiveData** object(s)) to facilitate the display of the image and description in the DisplayFragment whenever an image is clicked in the SelectionFragment.

8. Once your application has been tested, update the version number and generate a new APK

   1. Modify the file **build.gradle (Module:app)** found under **Gradle Scripts** in the project view

      Under defaultConfig, change **versionCode** to ***2***, and **versionName** to ***1.0.1-fragments***

   2. Click on ***Build*** and select ***Generate Signed Bundle/APK***

   3. Follow the steps for creating a new APK, but when requested, locate the certificate you

generated during a previous lab and use it to generate this new version of your app.

> Please note: If you are unable to find your previous key store, or are unable to recall one or both passwords, then you can create a new key store and key. Keep in mind however that had this application been previously published on an app distribution platform, it’s possible you would have lost the ability to update the application currently deployed and would instead have to change the package name (your apps unique identifier), lose your current user base, and start all over.

4. Follow any other dialogs to complete building the APK

5. Locate and rename your generated APK to **imagechooser-release-1.0.1.apk**

6. Do a final push of your project to GitHub and submit the repository URL along with the signed APK file to Canvas.

Rubric

SelectionFragment uses a factory function (e.g. **newInstance()**)	20%
SelectionFragment receives its collection of data via its factory function	10%
Activity uses fragment transactions to attach SelectionFragment and DisplayFragment	20%
ViewModel is used to manage state information	30%
DisplayFragment properly responds to image selection in SelectionFragmnet	20%