## Android Fundamentals Project Self-Evaluation

**Instructions:** Once you’ve completed your Final Project, please respond to the questions below. This is a chance for you to briefly explain to the grader your thought-process during development. Once you are done, include this with the source code and accompanying files you are submitting. Then, give yourself a pat on the back for making a great app!

# Questions about Required Components

## Permissions

**Please elaborate on why you chose the permissions in your app.**

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| My app uses:  <uses-permission android:name="android.permission.INTERNET" />  <uses-permission android:name="android.permission.ACCESS\_NETWORK\_STATE" />  <uses-permission android:name="android.permission.WRITE\_EXTERNAL\_STORAGE" />  These are required by Google Maps in order to download map tiles and to store them on the device. A map view is shown in the detailed view showing the GPS location of an alert. |

## Content Provider

**What is the name of your Content Provider, and how is it backed? (For example, Sunshine’s Content Provider is named WeatherProvider backed by an SQLite database, with two tables: weather and location.)**

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| Name – MyEventProvider  Backed – It is backed by an SQLite database with one table: event  This table is used to store alerts. It stores the datetime stamp, car color, make, model, alert category, GPS information. |

**What backend does it talk to? (For example, Sunshine talks to the OpenWeatherMap API.)**

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| In this version of my app the content provider is being populated by a service. The service creates random “real-time” alerts and inserts them in content provider.  In my next version, these events might be pulled from an Internet endpoint/API using a sync adapter or possibly pushed to the user's device by Google Cloud Messaging (GCM) and then inserted into the content provider. |

**If your app uses a SyncAdapter, what is it called? What mechanism is used to actually talk over the network? (For example, Sunshine uses HttpURLConnection to talk to the network, but your app may use a third-party library to do the talking.)**

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| A SyncAdapter is not being used at this time. It might be in a future version. |

**What loaders/adapters are used?**

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| In class AlertListFragment, a SimpleCursorAdapter is used. This is being used to populate the listview. A custom layout xml (R.layout.provider\_row) was created for the data being shown.  The class implements LoaderCallbacks<Cursor> for retrieving the data. |

## User/App State

**Please elaborate on how/where your app correctly preserves and restores user or app state. (See rubric for examples on this question)**

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| In class MapActivity, method onSaveInstanceState() is a called when the Activity is being stopped.  In this method, I am saving the content provider's row number into the variable Bundle outState.  When the Activity is being started, in method onCreate() I check if variable savedInstanceState is set to null.  If it is not null then the Activity is being restored so I check in variable savedInstanceState for the previously saved content provider's row number and pass that to the DetailMapFragment so it draw itself with the correct alert information and map showing the location with a marker. |

# Questions about Optional Components

Answer the questions that are applicable to your final project

## Notifications

**Please elaborate on how/where you implemented Notifications in your app:**

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| This notifications are created in class CreateAlertService/class MyRunnable/method run().  The service will create a notification for a green Lamborghini every five alerts it creates.  If a new notification is created while a previous one is still in the notification area it will be replaced by the newer one.  When the user pulls down the notification drawer it will show a short message saying “Nice car! Green lamborghini spotted”.  The user is able to click on the notification and be taken to class MapActivity. This is done by creating a Pending Intent which is used by the Notification Builder object. Class MapActivity shows the date and time of the alert, the location, and a map of the location with a marker on it.  In the next version of my app, the user would be able to choose what car types they would like notifications. The service would be monitoring for new alerts using a Sync Adapter and would create a notification as needed. |

## ShareActionProvider

**Please elaborate on how/where you implemented ShareActionProvider:**

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| In class DetailMapFragment, I added a share button to the options menu.  I needed to setHasOptionsMenu(true) so the Fragment would notify the system that it should call method onCreateOptionsMenu() and add its menu item. Method onCreateOptionsMenu() connects variable mShareActionProvider with the ShareActionProvider.  When a user clicks on the share option menu item, method onOptionsItemSelected() is called which populates an Intent with a short text message about the currently selected alert from the list view.  This intent is then passed to method startActivity() which the prompts the user to select which app they would like to use to share. |

## Broadcast Events

**Please elaborate on how/where you implemented Broadcast Events:**

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## Custom Views

**Please elaborate on how/where you implemented Custom Views:**

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