## **Cyclomatic Complexity Metrics**

## <u>Analysis</u>

The table below demonstrates that currently our project's cyclomatic complexity is at a low level. The ev(G) takes into account how complex a method is internally, while the iv(G) calculates how complex a method is due to multiple calls to outside methods. The v(G) is the total cyclomatic complexity of a method. On average our methods have a cyclomatic complexity of 1.78823529. Currently the methods with the highest cyclomatic complexity, are the methods that make calls to the API. In the future if our numbers start to rise due to an increased number of calls to the API, we may need to refactor the methods within the RestApi class. However, as of now, our cyclomatic complexity levels are low and therefore refactoring is not necessary.

## Data

Method Name	ev(G)	iv(G)	v(G)
com.rooio.repairs.AddLocationInstrumentedTest.testCancelButton()	1	1	1
com.rooio.repairs.AddLocationInstrumentedTest.testLaunchActivity()	1	1	1
com.rooio.repairs.AddLocationLogin.onAddClick()	1	2	2
com.rooio.repairs.AddLocationLogin.onBackClick()	1	1	1
com.rooio.repairs.AddLocationLogin.onCancel()	1	1	1
com.rooio.repairs.AddLocationLogin.onCreate(Bundle)	1	1	1
com.rooio.repairs.CustomAdapter.areAllItemsEnabled()	1	1	1
com.rooio.repairs.CustomAdapter.CustomAdapter(Context,ArrayList)	1	1	1
com.rooio.repairs.CustomAdapter.getCount()	1	1	1
com.rooio.repairs.CustomAdapter.getItem(int)	1	1	1
com.rooio.repairs.CustomAdapter.getItemId(int)	1	1	1
com.rooio.repairs.CustomAdapter.getItemViewType(int)	1	1	1
com.rooio.repairs.CustomAdapter.getView(int,View,ViewGroup)	1	2	2
com.rooio.repairs.CustomAdapter.getViewTypeCount()	1	1	1

com.rooio.repairs.CustomAdapter.hasStableIds()	1	1	1
com.rooio.repairs.CustomAdapter.isEmpty()	1	1	1
com.rooio.repairs.CustomAdapter.isEnabled(int)	1	1	1
com.rooio.repairs.CustomAdapter.registerDataSetObserver(DataSetObserver)	1	1	1
com.rooio.repairs.CustomAdapter.unregisterDataSetObserver(DataSetObserver)	1	1	1
com.rooio.repairs.JsonArrayRequest.JsonArrayRequest(int,String,JSONArray,Listener,ErrorListener)	1	2	2
com.rooio.repairs.JsonArrayRequest.JsonArrayRequest(int,String,JSONObject,List ener,ErrorListener)	1	2	2
com.rooio.repairs.JsonArrayRequest.JsonArrayRequest(int,String,Listener,ErrorListener)	1	1	1
com.rooio.repairs.JsonArrayRequest.parseNetworkResponse(NetworkResponse)	1	3	3
com.rooio.repairs.JsonRequest.getErrorFunc()	1	1	1
com.rooio.repairs.JsonRequest.getHeadersFlag()	1	1	1
com.rooio.repairs.JsonRequest.getParams()	1	1	1
com.rooio.repairs.JsonRequest.getResponseFunc()	1	1	1
com.rooio.repairs.JsonRequest.getUrl()	1	1	1
com.rooio.repairs.JsonRequest.isTest()	1	1	1
com.rooio.repairs.JsonRequest.JsonRequest(boolean,String,HashMap,Function,Function,boolean)	1	1	1
com.rooio.repairs.LocationInstrumentedTest.testCancelButton()	1	1	1
com.rooio.repairs.LocationInstrumentedTest.testLaunchActivity()	1	1	1
com.rooio.repairs.LocationLogin.adapt()	1	1	1
com.rooio.repairs.LocationLogin.addElements(JSONArray)	1	2	2
com.rooio.repairs.LocationLogin.onBtnClick()	1	1	1
com.rooio.repairs.LocationLogin.onCreate(Bundle)	1	2	2
com.rooio.repairs.LocationLogin.onItemClick(AdapterView,View,int,long)	1	1	1
com.rooio.repairs.LoginInstrumentedTest.testCancelButton()	1	1	1
com.rooio.repairs.LoginInstrumentedTest.testEmptyPassword()	1	1	1

com.rooio.repairs.LoginInstrumentedTest.testEmptyUsername()	1	1	1
com.rooio.repairs.LoginInstrumentedTest.testLaunchActivity()	1	1	1
com.rooio.repairs.LoginUnitTest.addition_isCorrect()	1	1	1
com.rooio.repairs.LoginUnitTest.testSendLoginInfo()	1	1	1
com.rooio.repairs.LoginUnitTest.validateTrue()	1	1	1
com.rooio.repairs.RegistrationIntstrumentedTest.testCancelButton()	1	1	1
com.rooio.repairs.RegistrationIntstrumentedTest.testLaunchActivity()	1	1	1
com.rooio.repairs.RestApi.addToVolleyQueue(JsonArrayRequest)	1	1	1
com.rooio.repairs.RestApi.addToVolleyQueue(JsonObjectRequest)	1	1	1
com.rooio.repairs.RestApi.getUserLocationID()	1	1	1
com.rooio.repairs.RestApi.getUserToken()	1	1	1
com.rooio.repairs.RestApi.requestGetJsonArray(JsonRequest)	3	2	9
com.rooio.repairs.RestApi.requestGetJsonArray(String,Function,Function,boolean			
)	2	2	8
com.rooio.repairs.RestApi.requestGetJsonObj(JsonRequest)	3	2	9
com.rooio.repairs.RestApi.requestGetJsonObj(String,Function,Function,boolean)	2	2	8
com.rooio.repairs.RestApi.requestPostJsonArray(JsonRequest)	3	2	9
com.rooio.repairs.RestApi.requestPostJsonArray(String,HashMap,Function,Functi			
on,boolean)	2	2	8
com.rooio.repairs.RestApi.requestPostJsonObj(JsonRequest)	3	2	9
com.rooio.repairs.RestApi.requestPostJsonObj(String,HashMap,Function,Functio			
n,boolean)	2	2	8
com.rooio.repairs.RestApi.setUserLocationID(String)	1	1	1
com.rooio.repairs.RestApi.setUserToken(String)	1	1	1
com.rooio.repairs.ServiceProviderData.ServiceProviderData(String,String)	1	1	1
Total	73	77	129
	1.1967	1.2622	2.1147
Average	2131	9508	541