**Android how to save complex generic class object to file and retrieve.**

* **Throw in jgrapht-demo-0.9.2 jar and jgrapht-ext-0.9.2-uber jar into libs folder.**
* **Rt click on the newly added jars after selecting boths – Build paths – Add to build Paths. Now you can use these jars in project.**

**import** java.io.FileInputStream;

**import** java.io.FileOutputStream;

**import** java.io.IOException;

**import** java.io.ObjectInputStream;

**import** java.io.ObjectOutputStream;

**import** java.util.ArrayList;

**import** java.util.List;

**import** org.jgrapht.GraphPath;

**import** org.jgrapht.Graphs;

**import** org.jgrapht.alg.KShortestPaths;

**import** org.jgrapht.graph.DefaultWeightedEdge;

**import** org.jgrapht.graph.SimpleDirectedWeightedGraph;

**import** android.content.Context;

**import** android.os.Bundle;

**import** android.support.v7.app.ActionBarActivity;

**import** android.view.View;

**import** android.widget.Button;

**import** android.widget.TextView;

**import** android.widget.Toast;

**public** **class** MainActivity **extends** ActionBarActivity {

**static** SimpleDirectedWeightedGraph<String, DefaultWeightedEdge> *graph*;

**static** SimpleDirectedWeightedGraph<String, DefaultWeightedEdge> *retrievedgraphs*;

**public** **static** String *fileName* = "createResumeForm.ser";

Button btnDeleteFile;

**public** **boolean** isFileDeleated;

**public** **static** TextView *textView1*;

@Override

**protected** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

btnDeleteFile = (Button) findViewById(R.id.*btnDeleteFile*);

*textView1* = (TextView) findViewById(R.id.*textView1*);

btnDeleteFile.setOnClickListener(**new** View.OnClickListener() {

@Override

**public** **void** onClick(View arg0) {

// **TODO** Auto-generated method stub

isFileDeleated = MainActivity.**this**.deleteFile(*fileName*);

}

});

*graph* = *readFromFile*(getApplicationContext());

**if** (*graph* == **null**) {

*graph* = **new** SimpleDirectedWeightedGraph<String, DefaultWeightedEdge>(

DefaultWeightedEdge.**class**);

*addYensGraph*();

saveToFile(getApplicationContext());

Toast.*makeText*(getApplicationContext(), "Only 1 time...",

Toast.*LENGTH\_SHORT*).show();

}

// retrievedgraphs = readFromFile(getApplicationContext());

*calculatepaths*(*graph*);

}

**public** **static** **void** addYensGraph() {

// **TODO** Auto-generated method stub

*graph*.addVertex("C");

*graph*.addVertex("D");

*graph*.addVertex("E");

*graph*.addVertex("F");

*graph*.addVertex("G");

*graph*.addVertex("H");

DefaultWeightedEdge e1 = *graph*.addEdge("C", "D");

*graph*.setEdgeWeight(e1, 3.554);

DefaultWeightedEdge e2 = *graph*.addEdge("C", "E");

*graph*.setEdgeWeight(e2, 2.554);

DefaultWeightedEdge e3 = *graph*.addEdge("D", "F");

*graph*.setEdgeWeight(e3, 4.554);

DefaultWeightedEdge e4 = *graph*.addEdge("E", "D");

*graph*.setEdgeWeight(e4, 1.554);

DefaultWeightedEdge e5 = *graph*.addEdge("E", "F");

*graph*.setEdgeWeight(e5, 2.554);

DefaultWeightedEdge e6 = *graph*.addEdge("E", "G");

*graph*.setEdgeWeight(e6, 3.554);

DefaultWeightedEdge e7 = *graph*.addEdge("F", "G");

*graph*.setEdgeWeight(e7, 2.554);

DefaultWeightedEdge e8 = *graph*.addEdge("F", "H");

*graph*.setEdgeWeight(e8, 1.554);

DefaultWeightedEdge e9 = *graph*.addEdge("G", "H");

*graph*.setEdgeWeight(e9, 2.554);

}

**private** **static** **void** calculatepaths(

SimpleDirectedWeightedGraph<String, DefaultWeightedEdge> retrievedgraphs) {

// **TODO** Auto-generated method stub

System.*out*.println("Now displaying k shortest paths:");

KShortestPaths ksp = **new** KShortestPaths(retrievedgraphs, "C", 3);// here

// starting

// node is "C"

List<GraphPath> paths = ksp.getPaths("H");// here ending node is "H"

**if** (paths == **null**)

System.*out*.println("no path found.");

**else** {

StringBuilder builder = **new** StringBuilder();

List<String> list = **new** ArrayList<>();

**for** (GraphPath p : paths) {

list = Graphs.*getPathVertexList*(p);

System.*out*.println(list + "dick facess");

builder.append(list + "dick faces");

}

*textView1*.setText(builder.toString());

}

}

**public** **void** saveToFile(Context context) {

**try** {

FileOutputStream fileOutputStream = context.openFileOutput(

*fileName*, Context.*MODE\_PRIVATE*);

ObjectOutputStream objectOutputStream = **new** ObjectOutputStream(

fileOutputStream);

objectOutputStream.writeObject(*graph*);

objectOutputStream.close();

fileOutputStream.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

**public** **static** SimpleDirectedWeightedGraph<String, DefaultWeightedEdge> readFromFile(

Context context) {

SimpleDirectedWeightedGraph<String, DefaultWeightedEdge> createResumeForm = **null**;

**try** {

FileInputStream fileInputStream = context.openFileInput(*fileName*);

ObjectInputStream objectInputStream = **new** ObjectInputStream(

fileInputStream);

createResumeForm = (SimpleDirectedWeightedGraph<String, DefaultWeightedEdge>) objectInputStream

.readObject();

objectInputStream.close();

fileInputStream.close();

} **catch** (IOException e) {

e.printStackTrace();

} **catch** (ClassNotFoundException e) {

e.printStackTrace();

}

**return** createResumeForm;

}

}

Activity\_main.xml

<RelativeLayout xmlns:android=*"http://schemas.android.com/apk/res/android"*

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android:paddingLeft=*"@dimen/activity\_horizontal\_margin"*

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android:paddingTop=*"@dimen/activity\_vertical\_margin"*

tools:context=*"com.example.graphtofileandroid.MainActivity"* >

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android:id=*"@+id/textView1"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*

android:text=*"@string/hello\_world"* />

<Button

android:id=*"@+id/btnDeleteFile"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*

android:layout\_below=*"@+id/textView1"*

android:layout\_marginLeft=*"42dp"*

android:layout\_marginTop=*"31dp"*

android:layout\_toRightOf=*"@+id/textView1"*

android:text=*"Delete File"* />

</RelativeLayout>