

Question:

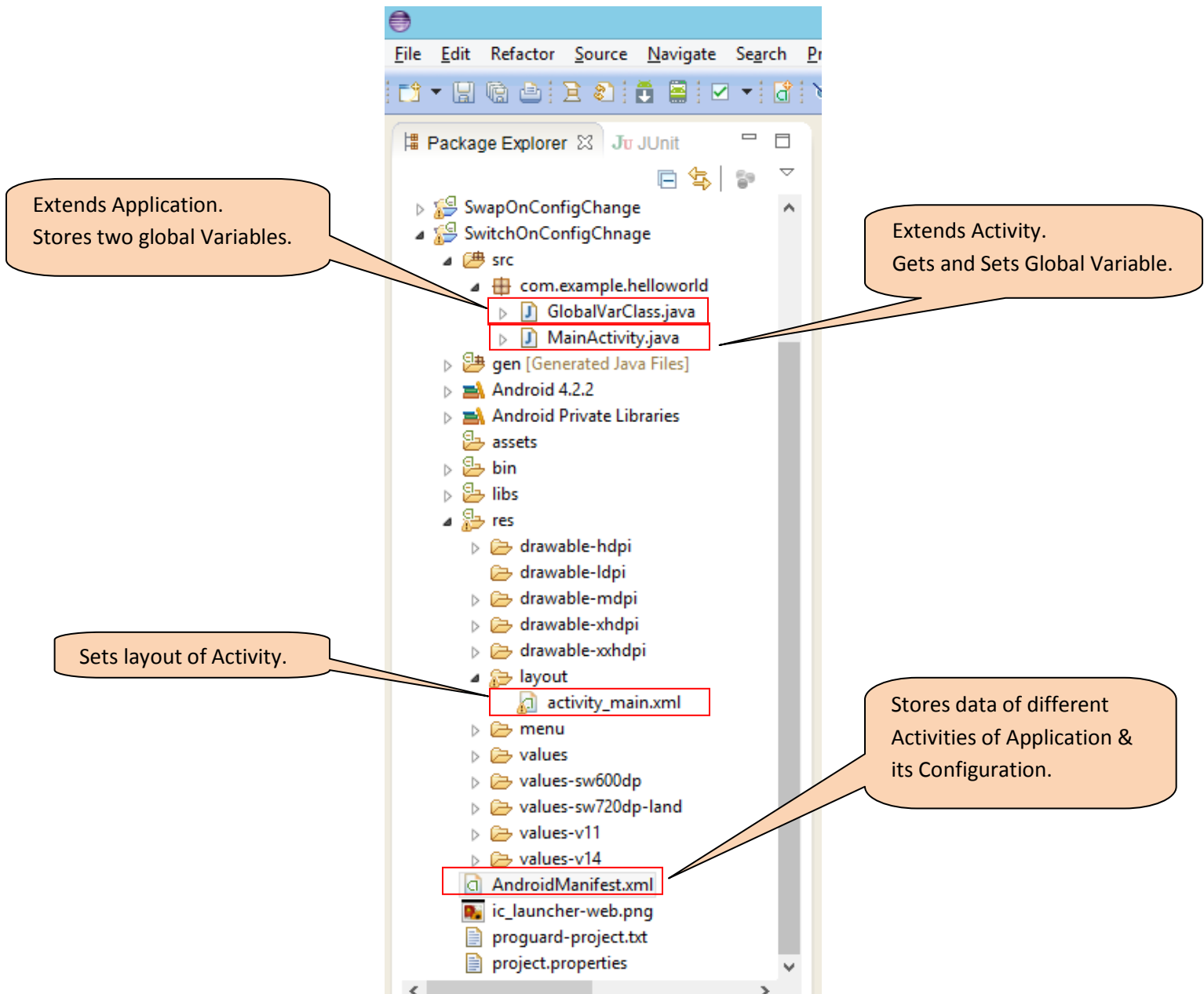
SwapText on Orientation Change

In this exercise, you will reimplement the [Swap Text](#) exercise with the following constraints

- Pressing D-PAD center after entering text into the EditTexts, so that the text of the 2 EditTexts are stored in two global variables of the Application.
 - a. The content of global variable 1 is reset with the value of EditText1.
 - b. The content of global variable 2 is reset with the value of EditText2.
- The texts of the EditTexts are swapped by reading the values of the 2 global variables
- Thus, if the smart phone's orientation is changed, this sequence of operations will take place
 - a. The content of EditText1 is reset with the content of global variable 2.
 - b. The content of EditText2 is reset with the content of global variable 1.

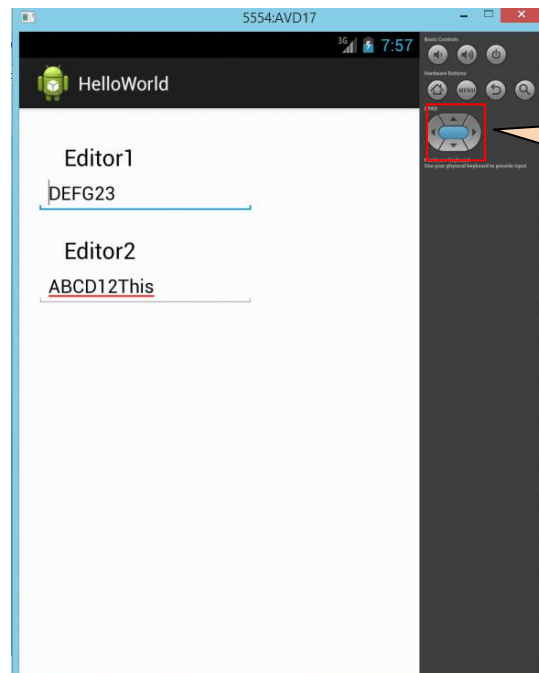
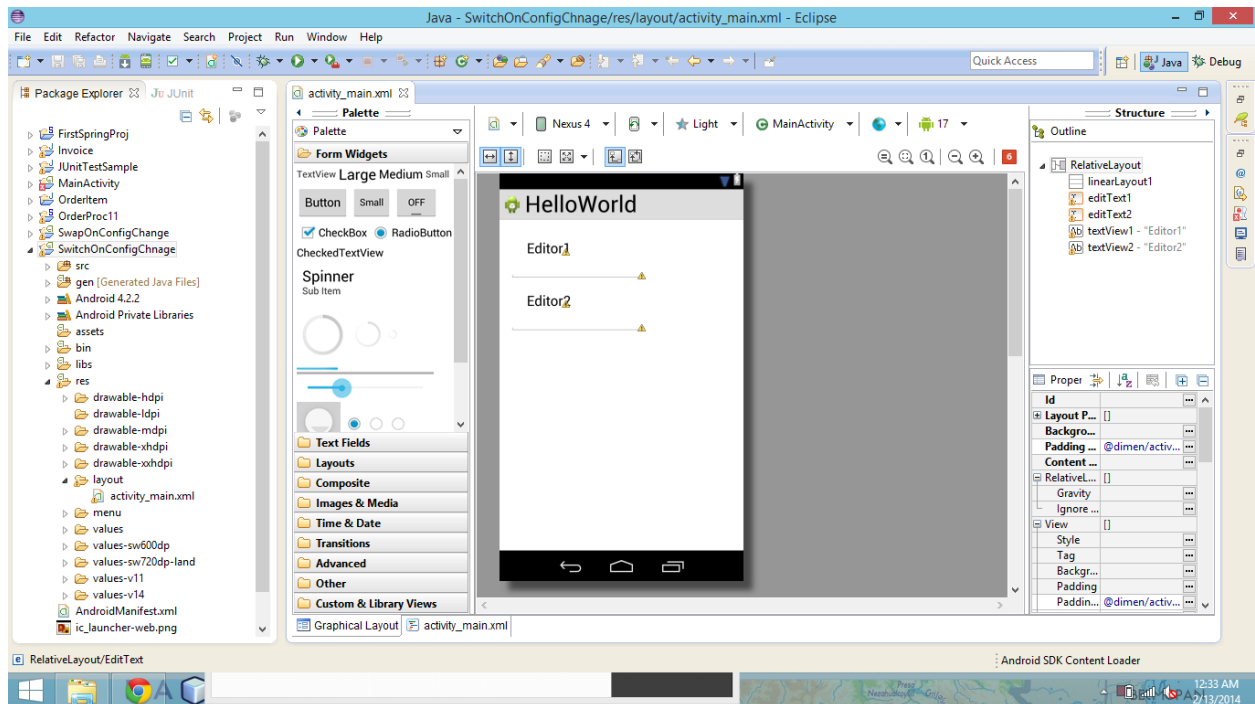
Screenshots

I have created this in Eclipse.

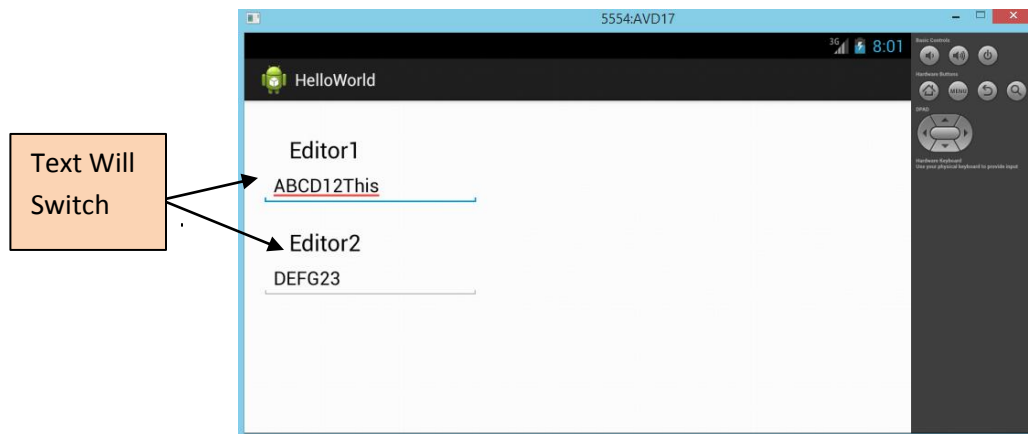


Create View with Two TextEditor and two TextView as shown here :

(I have XML code as activity_main.xml)



Click Dpad Center to
store
Editor1--> GlobalVar1
Editor2--> GlobalVar2



To do this we need to have two classes.

1) GlobalVarClass.java

which stores global variables in it. to store tow text value we will take two global variables

`globalVariable1` & `globalVariable2`

Create public *get* and *Set* methods for those variable so that we can assess to get and set global Variables out side class.

notice this class extends application, so that we can share global data between Activities of same Application.

```
//GlobalVarClass.java
package com.example.helloworld;

import android.app.Application;

public class GlobalVarClass extends Application{

    private String globalVariable1,globalVariable2;

    public String getGlobalVariable1(){return globalVariable1;}
    public String getGlobalVariable2(){return globalVariable2;}

    public void setGlobalVariable1(String variable1){globalVariable1 = variable1;}
    public void setGlobalVariable2(String variable2){globalVariable2 = variable2;}
}
```

requires registration with
AndroidManifest.xml as
`android:name=".GlobalVarClass"`

2)MainActivity.java

In the MainActivity.java class

We will need

GlobalVarClass **globalVariables** ; <-- Object of Global Variable class
EditText **editor1,editor2**; <-- two container for two EditText data
String **globalVar1,globalVar2**; <-- two container for two globalVariables

```
//MainActivity.java
package com.example.helloworld;
import android.os.Bundle;
import android.app.Activity;
import android.content.res.Configuration;
import android.view.Menu;
import android.view.View;
import android.widget.EditText;
import android.view.KeyEvent;

public class MainActivity extends Activity {

    GlobalVarClass globalVariables ;
    EditText editor1,editor2;
    String globalVar1,globalVar2;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        globalVariables = (GlobalVarClass) getApplication();
        editor1 = (EditText)findViewById(R.id.editText1);
        editor2 = (EditText)findViewById(R.id.editText2);

        editor1.setOnKeyListener(new View.OnKeyListener(){
            public boolean onKey(View v, int keyCode, KeyEvent event) {
                if (event.getAction() == KeyEvent.ACTION_DOWN)
                    if (keyCode == KeyEvent.KEYCODE_DPAD_CENTER)
                    {
                        String temp1 = editor1.getText().toString();
                        String temp2 = editor2.getText().toString();
                        globalVariables.setGlobalVariable1(temp1);
                        globalVariables.setGlobalVariable2(temp2);
                    }
                return false;
            }
        });

    @Override
    public void onConfigurationChanged(Configuration newConfig)
    {
        super.onConfigurationChanged(newConfig);
    }
}
```

Notice we are not using "new" keyword to create object of Application class (GlobalVariableClass.java)

This method listens for DPAD_center down event &

&
stores data inside global Variable of GlobalVariableClass.iava

Whenever configuration changes this method gets the data from GlobalVariableClass and display on EditText.

```

        String temp1 = globalVariables.getGlobalVariable2();
        String temp2 = globalVariables.getGlobalVariable1();
        editor1.setText(temp1);
        editor2.setText(temp2);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
}

```

XMLS ::

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.helloworld"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk

        android:minSdkVersion="17"
        android:targetSdkVersion="17" />

    <application
        android:name=".GlobalVarClass"
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:theme="@style/AppTheme" >
        <activity
            android:name="com.example.helloworld.MainActivity"
            android:label="@string/app_name"
            android:configChanges="orientation|keyboardHidden ">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>

```

Tells Compiler... Whenever Orientation Configuratin or KeyboardHidden Configuration changes call onConfigurationChanged(..) method of MainActivity.java

```

<!-- activity_main.xml -->
RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".MainActivity" >

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView1"
        android:ems="10"/>

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/textView2"
        android:ems="10"/>

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignLeft="@+id/editText1"
        android:layout_alignParentTop="true"
        android:layout_marginLeft="27dp"
        android:layout_marginTop="16dp"
        android:text="Editor1"
        android:textAppearance="?android:attr/textAppearanceLarge" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignLeft="@+id/textView1"
        android:layout_below="@+id/editText1"
        android:layout_marginTop="20dp"
        android:text="Editor2"
        android:textAppearance="?android:attr/textAppearanceLarge" />
</RelativeLayout>

```