Activity\_main.xml

*<?***xml version="1.0" encoding="utf-8"***?>*

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

**xmlns:app="http://schemas.android.com/apk/res-auto"**

**xmlns:tools="http://schemas.android.com/tools"**

**android:layout\_width="match\_parent"**

**android:layout\_height="match\_parent"**

**android:orientation="vertical"**

**tools:context=".MainActivity"**>

<**TextView**

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

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

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

**android:freezesText="true"**

**android:text="0"**

**android:textAlignment="center"**

**android:textColor="@color/colorPrimary"** />

<**TextView**

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

**android:layout\_width="355dp"**

**android:layout\_height="116dp"**

**android:text="0"**

**android:textAlignment="center"**

**android:textColor="@color/colorPrimary"**

**android:textSize="50dp"** />

<**Button**

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

**android:layout\_marginTop="40dp"**

**android:layout\_width="89dp"**

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

**android:text="Click Me"**

**android:textAlignment="center"**

/>

</**LinearLayout**>

MainActivity.java

**package** com.example.jevitha.a3\_1\_saveinstancestate;

**import** android.os.PersistableBundle;

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

**import** android.os.Bundle;

**import** android.util.Log;

**import** android.view.View;

**import** android.widget.Button;

**import** android.widget.TextView;

**import** android.widget.Toast;

*// https://stackoverflow.com/questions/5179686/restoring-state-of-textview-after-screen-rotation*

**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener{

Button b;

**int** i=0;

TextView tv;

@Override

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

**super**.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

tv = findViewById(R.id.textView);

b = findViewById(R.id.button);

b.setOnClickListener(**this**);

*//Retrieve i value from savedInstanceState if available*

*// and update the textview and toast.*

*//1st run - execute the code as such*

*//2nd run - comment out the entire if-else block below*

*// and check the log.d messages*

*//write your observations in lab notebook for both cases*

**if** (savedInstanceState != **null**) {

i = savedInstanceState.getInt(**"count"**);

*//updating textview with the i value*

tv.setText(String.valueOf(i));

Log.d(**"MainActivity"**, **"OnCreate : i="**+i);

Toast.makeText(**this**, **" onCreate i= "**+i,

Toast.LENGTH\_SHORT).show();

}

**else**

{

Log.d(**"MainActivity"**, **"OnCreate - no data"**);

Toast.makeText(**this**, **" onCreate - no data"**,

Toast.LENGTH\_SHORT).show();

}

}

@Override

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

*// if button is clicked, increment counter,*

*// update textview and toast*

**if**(view.getId()==b.getId()) {

i++;

tv.setText(String.valueOf(i));

}

Toast.makeText(**this**, **"Hello Android :) clicked "**+i,

Toast.LENGTH\_SHORT).show();

Log.d(**"MainActivity"**,**"Button Clicked... "**);

}

@Override

**protected void** onSaveInstanceState(Bundle outState) {

**super**.onSaveInstanceState(outState);

*//saving i value in bundle parameter(outState) obtained.*

outState.putInt(**"count"**,i);

Log.d(**"MainActivity"**, **"OnSaveInstanceState : i="**+i);

Toast.makeText(**this**, **"onSaveInstanceState i= "**+i,

Toast.LENGTH\_SHORT).show();

}

@Override

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

**super**.onRestoreInstanceState(savedInstanceState);

**if** (savedInstanceState != **null**) {

*//retrieving i value from bundle parameter(savedInstanceState) obtained.*

i = savedInstanceState.getInt(**"count"**);

*//updating textview with the i value*

tv.setText(String.valueOf(i));

Log.d(**"MainActivity"**, **"OnRestoreInstanceState : i="**+i);

Toast.makeText(**this**, **"onRestoreInstanceState i= "**+i, Toast.LENGTH\_SHORT).show();

}

**else**

{

Log.d(**"MainActivity"**, **"OnRestoreInstanceState - no data"**);

Toast.makeText(**this**, **" onRestoreInstanceState - no data"**, Toast.LENGTH\_SHORT).show();

}

}

@Override

**protected void** onStart() {

**super**.onStart();

Log.d(**"MainActivity"**, **"OnStart : i="**+i);

Toast.makeText(**this**, **" OnStart i= "**+i, Toast.LENGTH\_SHORT).show();

}

@Override

**protected void** onPause() {

**super**.onPause();

Log.d(**"MainActivity"**, **"OnPause : i="**+i);

Toast.makeText(**this**, **"OnPause i= "**+i, Toast.LENGTH\_LONG).show();

}

@Override

**protected void** onResume() {

**super**.onResume();

Log.d(**"MainActivity"**, **"OnResume : i="**+i);

Toast.makeText(**this**, **"OnResume i= "**+i, Toast.LENGTH\_LONG).show();

}

@Override

**protected void** onStop() {

**super**.onStop();

Log.d(**"MainActivity"**, **"OnStop : i="**+i);

Toast.makeText(**this**, **"OnStop i= "**+i, Toast.LENGTH\_LONG).show();

}

@Override

**protected void** onRestart() {

**super**.onRestart();

Log.d(**"MainActivity"**, **"OnReStart : i="**+i);

Toast.makeText(**this**, **"OnRestart i= "**+i, Toast.LENGTH\_LONG).show();

}

@Override

**protected void** onDestroy() {

**super**.onDestroy();

Log.d(**"MainActivity"**, **"OnDestroy : i="**+i);

Toast.makeText(**this**, **"OnDestroy i="**+i, Toast.LENGTH\_LONG).show();

}

}