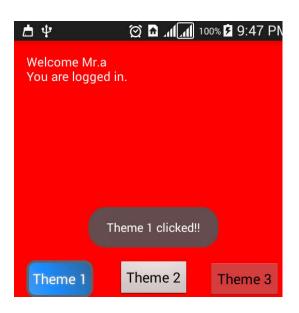
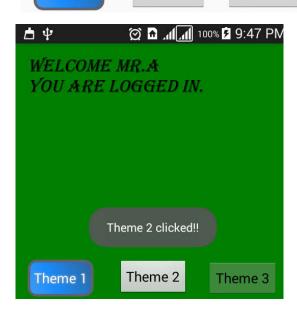


Theme 2

Theme 3

Theme 1









```
<TextView
    android:id="@+id/textView1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="start"
    android:gravity="start"
    android:text="@string/uname"
    android:textAppearance="?android:attr/textAppearanceLarge" />
  <EditText
    android:id="@+id/editText1"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:ems="10"
    android:inputType="text" >
    <requestFocus />
  </EditText>
  <TextView
    android:id="@+id/textView2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="start"
    android:gravity="start"
    android:text="@string/passwd"
    android:textAppearance="?android:attr/textAppearanceLarge" />
  <EditText
    android:id="@+id/editText2"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:ems="10"
    android:inputType="textPassword" />
```

```
android:layout width="match parent"
   android:layout height="wrap content"
   android:orientation="horizontal" >
<TextView
  android:id="@+id/textView4"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout gravity="start"
  android:gravity="start"
  android:text="@string/title"
  android:textAppearance="?android:attr/textAppearanceLarge" />
 <RadioGroup
   android:id="@+id/radioGroup1"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout gravity="center horizontal"
   android:gravity="center horizontal"
   android:orientation="horizontal" >
  < Radio Button
    android:id="@+id/radio0"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="fill horizontal"
    android:checked="true"
    android:text="@string/mr"/>
  < Radio Button
    android:id="@+id/radio1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="fill horizontal"
    android:text="@string/ms" />
```

```
< Radio Button
      android:id="@+id/radio2"
      android:layout width="wrap content"
      android:layout height="wrap content"
      android:layout gravity="fill horizontal"
      android:text="@string/miss" />
  </RadioGroup>
   </LinearLayout>
  <Button
    android:id="@+id/button1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="@string/btn name" />
</LinearLayout>
activity result.xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:id="@+id/rl1"
  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="in.jacsice.android.guicomponents.ResultActivity" >
  <TextView
    android:id="@+id/textview1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="@string/hello world" />
<Button
```

```
android:id="@+id/button1"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout alignLeft="@+id/textview1"
  android:layout alignStart="@+id/textview1"
  android:layout centerVertical="true"
  android:text="@string/theme1"
  android:background="@drawable/button"
  android:textColor="#FFFFFFF"
           android:shadowColor="#A8A8A8"
           android:shadowDx="0"
           android:shadowDy="0"
           android:shadowRadius="5"/>
<Button
  android:id="@+id/button2"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout centerHorizontal="true"
  android:layout centerVertical="true"
  android:text="@string/theme2"
  />
<Button
  android:id="@+id/button3"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout alignParentRight="true"
  android:layout alignParentEnd="true"
  android:layout centerVertical="true"
  android:text="@string/theme3" />
```

## </RelativeLayout>

## MainActivity.java

@Override

package in.jacsice.android.guicomponents;

```
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Gravity;
import android.view.View;
import android.widget.EditText;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
public class MainActivity extends Activity {
       private EditText ed1,ed2;
       private RadioGroup rg1;
       private RadioButton rb;
       private Button bu;
       public final static String EXTRA MESSAGE = "username";
       private Intent intent;
       String message;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    bu = (Button) findViewById(R.id.button1);
bu.setOnClickListener(new View.OnClickListener() {
```

```
public void onClick(View v) {
              ed1 = (EditText) findViewById(R.id.editText1);
              ed2 = (EditText) findViewById(R.id.editText2);
              rg1 = (RadioGroup) findViewById(R.id.radioGroup1);
              int selectedId=rg1.getCheckedRadioButtonId();
       rb=(RadioButton)findViewById(selectedId);
       String a = ed1.getText().toString();
       String b = ed2.getText().toString();
       String c = rb.getText().toString();
if (a.equals("a") && b.equals("a")) {
       intent=new Intent(v.getContext(),ResultActivity.class);
       message = "Welcome "+c+""+a+"\nYou are logged in.";
       intent.putExtra(EXTRA MESSAGE, message);
       v.getContext().startActivity(intent);
else {
       Toast msg = Toast.makeText(getBaseContext(), "Invalid User!!!", Toast.LENGTH LONG);
       msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -100);
       msg.show();
       }
              }
                                   }
                                          }
                    });
```

## ResultActivity.java

```
import android.annotation.TargetApi;
import android.app.Activity;
import android.os.Build;
import android.os.Bundle;
import android.content.Intent;
```

import android.graphics.Typeface;

package in.jacsice.android.guicomponents;

```
import android.graphics.drawable.Drawable;
import android.util.TypedValue;
import android.view.Gravity;
import android.view.View;
import android.widget.Button;
import android.widget.RelativeLayout;
import android.widget.TextView;
import android.widget.Toast;
public class ResultActivity extends Activity {
       private TextView tv1;
       private Button bu1,bu2,bu3;
       private String tamilstr="jq;fs; tuT ey;tuthFf!";
       private Typeface tf=null;
       private String message="english text";
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity result);
              Intent intent = getIntent();
    message = intent.getStringExtra(MainActivity.EXTRA MESSAGE);
    // Create the text view
    tv1 = (TextView) findViewById(R.id.textview1);
    tv1.setTextSize(40);
    tv1.setText(message);
    // Set the text view as the activity layout
    //setContentView(tv1);
    bu1 = (Button) findViewById(R.id.button1);
```

```
bu2 = (Button) findViewById(R.id.button2);
    bu3 = (Button) findViewById(R.id.button3);
    final RelativeLayout rl = (RelativeLayout) findViewById(R.id.rl1);
    bu1.setOnClickListener(new View.OnClickListener() {
@TargetApi(Build.VERSION CODES.JELLY BEAN)
@SuppressWarnings("deprecation")
@Override
public void onClick(View v) {
//Drawable dbg = v.getBackground();
tv1.setText(message);
rl.setBackgroundColor(getResources().getColor(R.color.Red));
tv1.setTextColor(getResources().getColor(R.color.White));
tv1.setTextSize(TypedValue.COMPLEX UNIT SP,16);
Typeface tf = Typeface.SANS SERIF;
tv1.setTypeface(tf,Typeface.NORMAL);
//v.setBackground(dbg);
bu2.setBackgroundResource(android.R.drawable.btn default);
//bu3.setBackgroundResource(android.R.drawable.btn default);
Toast msg = Toast.makeText(getBaseContext(), "Theme 1 clicked!!", Toast.LENGTH LONG);
msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -100);
msg.show();
                    }
    });
bu2.setOnClickListener(new View.OnClickListener() {
@SuppressWarnings("deprecation")
@Override
public void onClick(View v) {
```

```
tv1.setText(message);
      rl.setBackgroundColor(getResources().getColor(R.color.Green));
      tv1.setTextColor(getResources().getColor(R.color.Black));
      tv1.setTextSize(24);
      //Typeface tf = Typeface.MONOSPACE;
      //tv1.setTypeface(tf,Typeface.ITALIC);
       Typeface tf = Typeface.createFromAsset(getAssets(), "font/ALGER.TTF");
       tv1.setTypeface(tf,Typeface.ITALIC);
      //bu1.setBackgroundResource(android.R.drawable.btn_default);
       bu2.setBackgroundResource(android.R.drawable.btn default);
      //bu3.setBackgroundResource(android.R.drawable.btn default);
Toast msg = Toast.makeText(getBaseContext(), "Theme 2 clicked!!", Toast.LENGTH LONG);
      msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -100);
      msg.show();
       }
    });
bu3.setOnClickListener(new View.OnClickListener() {
@SuppressWarnings("deprecation")
@Override
public void onClick(View v) {
//bu1.setBackgroundResource(android.R.drawable.btn default);
bu2.setBackgroundResource(android.R.drawable.btn default);
//bu3.setBackgroundResource(android.R.drawable.btn default);
rl.setBackgroundColor(getResources().getColor(R.color.Blue));
tv1.setTextColor(getResources().getColor(R.color.Yellow));
tv1.setTextSize(32);
tv1.setText(tamilstr);
//Typeface tf = Typeface.SERIF;
//tv1.setTypeface(tf,Typeface.BOLD);
Typeface tf = Typeface.createFromAsset(getAssets(), "font/TAMIL BIBLE.TTF");
tv1.setTypeface(tf,Typeface.BOLD);
Toast msg = Toast.makeText(getBaseContext(), "Theme 3 clicked!!", Toast.LENGTH LONG);
```

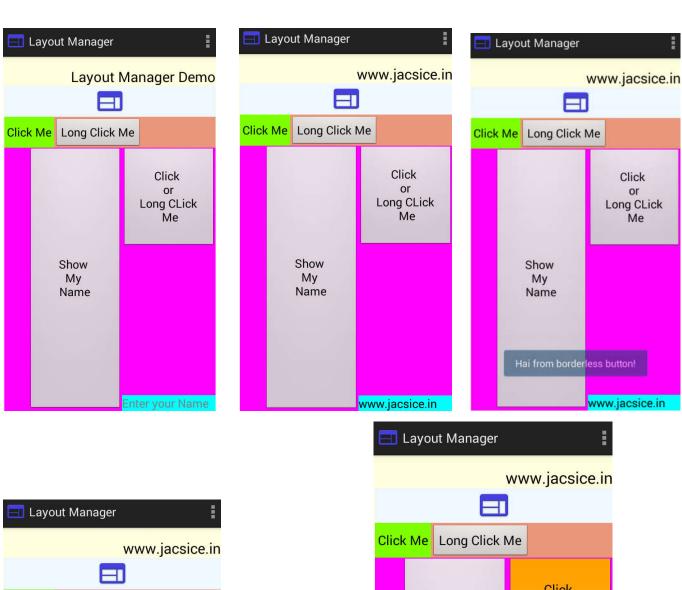
```
msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -100);
msg.show();
                     }
              });
       }
AndroidManifest.xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="in.jacsice.android.guicomponents"
  android:versionCode="1"
  android:versionName="1.0" >
  <uses-sdk
    android:minSdkVersion="8"
    android:targetSdkVersion="23" />
  <application
    android:allowBackup="true"
    android:icon="@drawable/ic_launcher"
    android:label="@string/app name"
    android:theme="@style/AppTheme" >
    <activity
      android:name=".MainActivity"
      android:label="@string/app_name" >
      <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
      </intent-filter>
    </activity>
    <activity
      android:name=".ResultActivity"
```

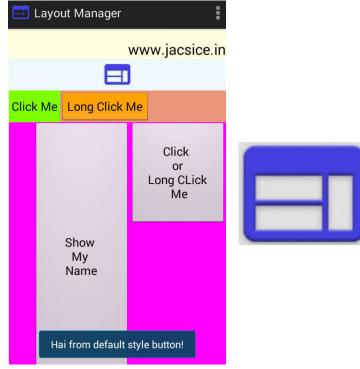
```
android:label="@string/title activity result"
      android:parentActivityName=".MainActivity" >
      <meta-data
         android:name="android.support.PARENT ACTIVITY"
         android:value="in.jacsice.android.guicomponents.MainActivity" />
    </activity>
  </application>
</manifest>
Button.xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android" android:shape="rectangle" >
<corners
             android:radius="10dp"
             />
<gradient
             android:angle="45"
             android:centerX="35%"
             android:centerColor="#198CFF"
             android:startColor="#449DEF"
             android:endColor="#2F6699"
             android:type="linear"
             />
<padding</pre>
             android:left="8dp"
             android:top="3dp"
             android:right="8dp"
             android:bottom="3dp"
             />
<stroke
             android:width="3dp"
             android:color="#ff62616e"
             />
</shape>
```

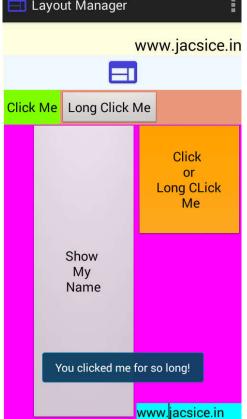
## Color.xml

</resources>

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
<color name="White">#FFFFF</color>
<color name="Yellow">#FFFF00</color>
<color name="Gold">#FFD700</color>
<color name="Pink">#FFC0CB</color>
<color name="Orange">#FFA500</color>
<color name="Magenta">#FF00FF</color>
<color name="Red">#FF0000</color>
</resources>
Strings.xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <string name="app name">GuiComponents</string>
  <string name="hello world">Hello world!</string>
  <string name="action settings">Settings</string>
  <string name="btn name">Login</string>
  <string name="uname">Username :</string>
  <string name="passwd">Password :</string>
  <string name="title">Title :</string>
  <string name="mr">Mr.</string>
  <string name="miss">Miss.</string>
  <string name="ms">Ms.</string>
  <string name="title activity result">ResultActivity</string>
  <string name="theme1">Theme 1</string>
  <string name="theme2">Theme 2</string>
  <string name="theme3">Theme 3</string>
```







## Activity main.xml

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@color/LightYellow"
  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="in.jacsice.android.layoutmanager.MainActivity">
<TextView
             android:layout width="wrap content"
                    android:layout height="wrap content"
                    android:layout alignParentEnd="true"
                    android:textAppearance="?android:attr/textAppearanceLarge"
                    android:text="@string/layoutpgm"
                    android:id="@+id/txtSample"
                    android:layout alignParentTop="true"
                     android:layout centerHorizontal="true" />
             <LinearLayout
                android:layout width="match parent"
                android:layout height="fill parent"
                android:layout below="@+id/txtSample"
                android:layout centerHorizontal="true"
                android:background="@color/AliceBlue"
                android:orientation="vertical" >
                           <ImageView android:id="@+id/imageView"</pre>
                                          android:contentDescription="@string/imagedesc"
                                          android:layout width="wrap content"
                                          android:layout height="wrap content"
```

```
android:layout gravity="center horizontal"
                                         android:src="@drawable/ic launcher"/>
                           <TableLayout
                              android:layout width="match parent"
                              android:layout height="wrap content"
                              android:background="@color/DarkSalmon" >
                                         <TableRow
                                            android:id="@+id/tableRow"
                                            android:layout width="match parent"
                                            android:layout height="match parent"
                                            android:orientation="horizontal" >
                                                       <Button
                                                          android:id="@+id/btnClick"
                                                          style="?android:attr/buttonBarButtonStyle"
                                                          android:layout width="wrap content"
                                                          android:layout height="wrap content"
                                                          android:background="@color/Chartreuse"
                                                          android:text="@string/clickme" />
                                  <Button
                                  android:id="@+id/btnLongClick"
                                  android:layout width="wrap content"
                                  android:layout height="wrap content"
                            android:background="@android:drawable/btn default"
                                   android:text="@string/longclickme"/>
<!-- style="?android:attr/buttonBarButtonStyle" add this line in the above button to make the button
```

borderless-->

</TableLayout>

</TableRow>

```
<GridLayout
  android:id="@+id/lytGrid"
  android:layout width="match parent"
  android:layout height="fill parent"
  android:background="@color/Magenta" >
             <Button
               android:id="@+id/btnAll"
               android:layout width="145dp"
               android:layout height="156dp"
               android:layout column="3"
               android:layout columnSpan="1"
               android:layout row="0"
               android:layout rowSpan="2"
               android:background="@android:drawable/btn default"
               android:text="@string/gridlongclick" />
             <Button
               android:id="@+id/btnShowName"
               android:layout width="145dp"
               android:layout height="match parent"
               android:layout column="2"
               android:layout row="1"
               android:layout rowSpan="3"
               android:background="@android:drawable/btn default"
               android:text="@string/showmyname" />
             <EditText
               android:id="@+id/txtName"
               android:layout width="145dp"
               android:layout height="wrap content"
               android:layout column="3"
               android:layout_columnSpan="1"
               android:layout row="3"
               android:layout rowSpan="1"
```

## </GridLayout>

## </LinearLayout>

```
</RelativeLayout>
```

### Strings.xml

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

```
<string name="app_name">LayoutManager</string>
<string name="hello_world">Hello world!</string>
<string name="action_settings">Settings</string>
<string name="title_activity_main">Layout Manager</string>
<string name="layoutpgm">Layout Manager Demo</string>
<string name="layoutpgm">Layout Manager Demo</string>
<string name="imagedesc">Just an Image</string>
<string name="clickme">Click Me</string>
<string name="longclickme">Long Click Me</string>
<string name="gridlongclick">Click \n or \n Long CLick \n Me</string></string>
```

<string name="showmyname">Show \nMy \nName</string>

<string name="entername">Enter your Name</string>

</resources>

## MainActivity.java

package in.jacsice.android.layoutmanager;

```
import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

```
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends Activity {
       Button clickBtn, longClickBtn, allBtn, btnShow;
      TextView sample;
      EditText nameTxt;
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
              clickBtn = (Button) findViewById(R.id.btnClick);
              longClickBtn = (Button) findViewById(R.id.btnLongClick);
              allBtn = (Button) findViewById(R.id.btnAll);
              btnShow = (Button) findViewById(R.id.btnShowName);
              sample = (TextView) findViewById(R.id.txtSample);
              nameTxt = (EditText) findViewById(R.id.txtName);
              clickBtn.setOnClickListener(new View.OnClickListener() {
                     @Override
                    public void onClick(View v) {
                    Toast.makeText(getApplicationContext(), "Hai from borderless button!",
Toast.LENGTH SHORT).show();
                     }
                     });
              /*Implement Long Click Listener*/
              longClickBtn.setOnLongClickListener(new View.OnLongClickListener() {
                     @Override
                    public boolean onLongClick(View v) {
                    Toast.makeText(getApplicationContext(), "Hai from default style button!",
                    Toast.LENGTH SHORT).show();
```

```
}
              });
       allBtn.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View v) {
              Toast.makeText(getApplicationContext(), "You Just Clicked Me!",
              Toast.LENGTH SHORT).show();
              }
              });
       allBtn.setOnLongClickListener(new View.OnLongClickListener() {
              @Override
              public boolean onLongClick(View v) {
              Toast.makeText(getApplicationContext(), "You clicked me for so long!",
              Toast.LENGTH SHORT).show();
              return true;
              // return true means to disable event bubble & calling onClick again.
              // return false means, its calls the onClick event again.
              }
              });
       btnShow.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View v) {
              sample.setText(nameTxt.getText().toString());
              }
              });
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
       // Inflate the menu; this adds items to the action bar if it is present.
       getMenuInflater().inflate(R.menu.main, menu);
```

return false;

```
return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();
    if (id == R.id.action_settings) {
        return true;
    }
    return super.onOptionsItemSelected(item);
}
```

}









### Activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout width="fill parent"
android:layout height="fill parent">
              <LinearLayout
              android:layout width="match parent"
              android:layout height="wrap content"
              android:id="@+id/linearLayout1"
              android:layout marginLeft="10pt"
              android:layout marginRight="10pt"
              android:layout marginTop="3pt">
                            <EditText
                              android:id="@+id/etNum1"
                              android:layout width="match parent"
                              android:layout height="wrap content"
                              android:layout gravity="end"
                              android:gravity="end"
                              android:textAlignment="gravity"
                              android:layout marginEnd="5pt"
                              android:layout weight="1"
                              android:inputType="numberDecimal" />
                            <EditText
                              android:id="@+id/etNum2"
                                   android:layout width="match parent"
                                   android:layout height="wrap content"
                                   android:layout gravity="end"
                                   android:gravity="end"
                                   android:textAlignment="gravity"
                                   android:layout marginStart="5pt"
```

```
android:layout_weight="1"
android:inputType="numberDecimal"/>
```

## </LinearLayout>

```
<LinearLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/linearLayout2"
android:layout_marginTop="3pt"
android:layout_marginLeft="5pt"
android:layout_marginRight="5pt">
```

# <Button android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="+" android:textSize="8pt" android:id="@+id/btnAdd"/>

# <Button android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="-" android:textSize="8pt" android:id="@/+id/btnSub"/>

# <Button android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="\*" android:textSize="8pt"

# android:id="@+id/btnMul"/>

# <Button android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="/" android:textSize="8pt" android:id="@+id/btnDiv"/>

## </LinearLayout>

```
<TextView
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_marginLeft="5pt"
android:layout_marginRight="5pt"
android:textSize="12pt"
android:layout_marginTop="3pt"
android:id="@+id/tvResult"
android:gravity="center_horizontal"/>
```

# <LinearLayout

android:layout\_width="match\_parent"
android:layout\_height="wrap\_content"
android:id="@+id/linearLayout3"
android:layout\_marginTop="3pt"
android:layout\_marginLeft="5pt"
android:layout\_marginRight="5pt"
android:orientation="vertical"
android:layout\_gravity="center\_vertical"
android:gravity="center">

```
<Button
                       android:id="@+id/clr"
                       android:layout width="wrap content"
                       android:layout height="wrap content"
                       android:text="@string/clr"
                       android:textSize="8pt"
                       android:onClick="ClearText" />
              </LinearLayout>
</LinearLayout>
Strings.xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <string name="app name">Simple Calculator</string>
  <string name="hello world">Hello world!</string>
  <string name="action_settings">Settings</string>
  <string name="clr">C l e a r</string>
  <string name="btnAdd">+</string>
  <string name="btnSub">-</string>
  <string name="btnMul">*</string>
  <string name="btnDiv">/</string>
</resources>
MainActivity.java
package in.jacsice.android.simplecalculator;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Gravity;
import android.view.Menu;
import android.view.MenuItem;
//import android.text.TextUtils;
import android.view.View;
import android.view.View.OnClickListener;
```

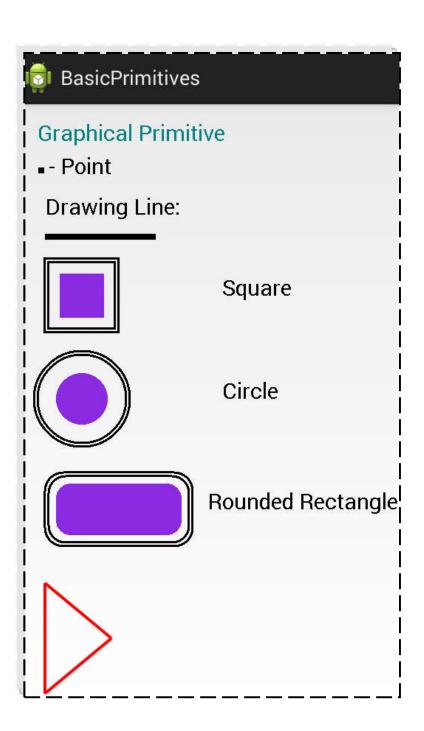
```
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends Activity implements OnClickListener {
        EditText etNum1;
        EditText etNum2;
        Button btnAdd;
        Button btnSub;
        Button btnMul;
        Button btnDiv;
        TextView tvResult;
        String oper = "";
        Toast msg;
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
              // find the elements
         etNum1 = (EditText) findViewById(R.id.etNum1);
         etNum2 = (EditText) findViewById(R.id.etNum2);
         btnAdd = (Button) findViewById(R.id.btnAdd);
         btnSub = (Button) findViewById(R.id.btnSub);
         btnMul = (Button) findViewById(R.id.btnMul);
         btnDiv = (Button) findViewById(R.id.btnDiv);
```

```
tvResult = (TextView) findViewById(R.id.tvResult);
         // set a listener
         btnAdd.setOnClickListener((OnClickListener) this);
         btnSub.setOnClickListener(this);
         btnMul.setOnClickListener(this);
         btnDiv.setOnClickListener(this);
        }
        @Override
        public void onClick(View v) {
         // TODO Auto-generated method stub
         float num1 = 0;
         float num2 = 0;
         float result = 0;
         // check if the fields are empty
        // if (TextUtils.isEmpty(etNum1.getText().toString()) ||
TextUtils.isEmpty(etNum2.getText().toString()))
        // {return;}
         //String n = "N1:"+etNum1.getText().toString() +"\n N2:"+ etNum2.getText().toString();
         //Toast.makeText(MainActivity.this, n, Toast.LENGTH LONG).show();
         if(etNum1.getText().toString().equals("") || etNum1.getText().toString().equals(null))
     {
              msg = Toast.makeText(MainActivity.this, "Number1 is empty!", Toast.LENGTH SHORT);
              msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -100);
                     msg.show();
              etNum1.setFocusable(true);
              etNum1.setCursorVisible(true);
              etNum1.requestFocus();
              return;
```

```
}
    if(etNum2.getText().toString().equals("") || etNum2.getText().toString().equals(null))
{
         msg = Toast.makeText(MainActivity.this, "Number2 is empty!", Toast.LENGTH SHORT);
         msg.setGravity(Gravity.CENTER|Gravity.CENTER HORIZONTAL, 0, -200);
                msg.show();
       etNum2.setFocusable(true);
         etNum2.setCursorVisible(true);
         etNum2.requestFocus();
         return;
    }
    // read EditText and fill variables with numbers
    num1 = Float.parseFloat(etNum1.getText().toString());
    num2 = Float.parseFloat(etNum2.getText().toString());
    // defines the button that has been clicked and performs the corresponding operation
    // write operation into oper, we will use it later for output
    switch (v.getId()) {
    case R.id.btnAdd:
     oper = "+";
     result = num1 + num2;
     break;
    case R.id.btnSub:
     oper = "-";
     result = num1 - num2;
     break;
    case R.id.btnMul:
     oper = "*";
     result = num1 * num2;
     break;
    case R.id.btnDiv:
     oper = "/";
     result = num1 / num2;
```

```
break;
  default:
   break;
  tvResult.setText(num1 + " " + oper + " " + num2 + " = " + result);
public void ClearText(View v){
       etNum1.setText("");
       etNum2.setText("");
       tvResult.setText("");
       etNum1.requestFocus();
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
       // Inflate the menu; this adds items to the action bar if it is present.
       getMenuInflater().inflate(R.menu.main, menu);
       return true;
}
@Override
public boolean onOptionsItemSelected(MenuItem item) {
       // Handle action bar item clicks here. The action bar will
       // automatically handle clicks on the Home/Up button, so long
       // as you specify a parent activity in AndroidManifest.xml.
       int id = item.getItemId();
       if (id == R.id.action settings) {
              return true;
       }
       return super.onOptionsItemSelected(item);
}
```

}



## MainActivity.java

```
package com.example.basicprimitives;
import android.app.Activity;
import android.os.Bundle;
public class MainActivity extends Activity {
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              BasicPrimitives drawView = new BasicPrimitives(this);
              setContentView(drawView);
       }
}
BasicPrimitives.java
package com.example.basicprimitives;
import android.content.Context;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.Path;
import android.graphics.Path.FillType;
import android.graphics.Point;
import android.graphics.RectF;
import android.view.View;
public class BasicPrimitives extends View{
       Paint paint = new Paint();
       public BasicPrimitives(Context context) {
              super(context);
       }
```

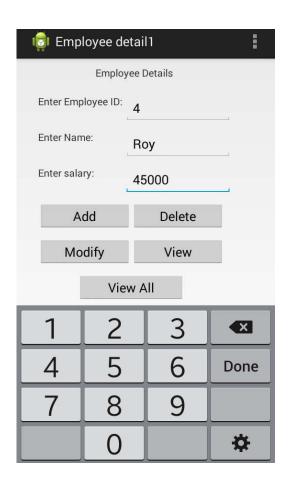
### @Override

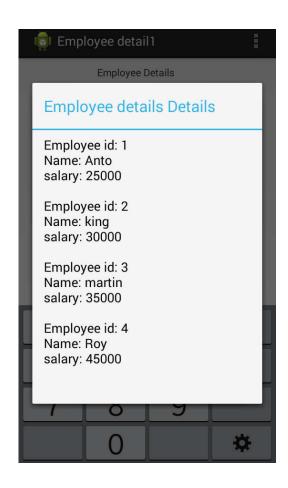
```
protected void onDraw(Canvas canvas) {
       super.onDraw(canvas);
       paint.setColor(getResources().getColor(R.color.Teal));
       paint.setTextSize(30);
       canvas.drawText("Graphical Primitive",50,50,paint);
       paint.setColor(Color.BLACK);
       paint.setStrokeWidth(8);
       canvas.drawPoint(55,90,paint);
       canvas.drawText(" - Point",58,95,paint);
       canvas.drawText("Drawing Line:",60,150,paint);
       paint.setColor(Color.BLACK);
       canvas.drawLine(60, 180, 210, 180, paint);
       canvas.drawText("Square",300,260,paint);
       Paint myPaint = new Paint();
       myPaint.setColor(Color.rgb(0, 0, 0));
       myPaint.setStrokeWidth(3);
       myPaint.setStyle(Paint.Style.STROKE);
       canvas.drawRect(60, 210, 160, 310, myPaint);
       canvas.drawRect(65, 215, 155, 305, myPaint);
       myPaint.setColor(getResources().getColor(R.color.BlueViolet));
       myPaint.setStyle(Paint.Style.FILL);
       canvas.drawRect(80, 230, 140, 290, myPaint);
       canvas.drawText("Circle",300,400,paint);
       canvas.drawCircle(110, 400, 35, myPaint);
       myPaint.setStyle(Paint.Style.STROKE);
       myPaint.setColor(Color.rgb(0, 0, 0));
       canvas.drawCircle(110, 400, 60, myPaint);
       canvas.drawCircle(110, 400, 65, myPaint);
```

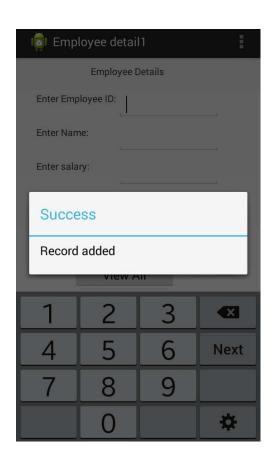
```
canvas.drawText("Rounded Rectangle",280,550,paint);
    canvas.drawRoundRect(new RectF(60, 500, 260, 600), 25, 25, myPaint);
    canvas.drawRoundRect(new RectF(65, 505, 255, 595), 23, 23, myPaint);
    myPaint.setStyle(Paint.Style.FILL);
    myPaint.setColor(getResources().getColor(R.color.BlueViolet));
    canvas.drawRoundRect(new RectF(75, 515, 245, 585), 20, 20, myPaint);
paint.setStrokeWidth(4);
paint.setColor(android.graphics.Color.RED);
paint.setStyle(Paint.Style.STROKE);
paint.setAntiAlias(true);
Point a = new Point(60, 650);
Point b = new Point(60, 800);
Point c = new Point(150, 725);
Path path = new Path();
path.setFillType(FillType.EVEN ODD);
path.moveTo(a.x, a.y);
path.lineTo(b.x, b.y);
path.moveTo(b.x, b.y);
path.lineTo(c.x, c.y);
path.moveTo(c.x, c.y);
path.lineTo(a.x, a.y);
path.close();
canvas.drawPath(path, paint);
```

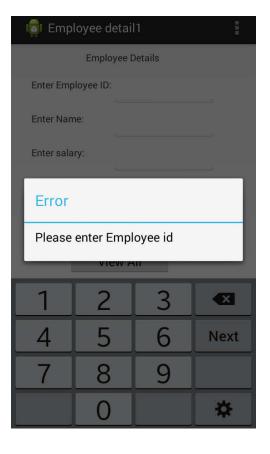
}

}









## activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
                           android:id="@+id/myLayout"
                           android:stretchColumns="0"
                           android:layout width="fill parent"
                           android:layout height="fill parent">
      <TextView
                    android:text="@string/title"
                           android:layout x="110dp"
                           android:layout y="10dp"
                           android:layout width="wrap content"
                           android:layout height="wrap content"/>
      <TextView
                    android:text="@string/empid"
                           android:layout x="30dp"
                           android:layout y="50dp"
                           android:layout width="wrap content"
                           android:layout height="wrap content"/>
                    android:id="@+id/editEmpid"
      <EditText
                    android:labelFor="@+id/editEmpid"
                           android:inputType="number"
                           android:layout x="150dp"
                           android:layout y="50dp"
                           android:layout width="150dp"
                           android:layout height="40dp"/>
      <TextView
                    android:text="@string/name"
                           android:layout x="30dp"
```

```
android:layout_y="100dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
```

<EditText android:id="@+id/editName"

android:inputType="text"

android:layout\_x="150dp"

android:layout\_y="100dp"

android:layout\_width="150dp"

android:layout\_height="40dp"/>

<TextView android:text="@string/salary"

android:layout\_x="30dp"

android:layout\_y="150dp"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"/>

<EditText android:id="@+id/editsalary"

android:inputType="number"

android:layout\_x="150dp"

android:layout\_y="150dp"

android:layout\_width="150dp"

android:layout\_height="40dp"/>

 </AbsoluteLayout>

#### MainActivity.java

```
package com.example.dbdemo;
import android.app.AlertDialog.Builder;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.MenuItem;
public class MainActivity extends Activity implements OnClickListener {
              EditText editEmpid,editName,editsalary;
              Button btnAdd,btnDelete,btnModify,btnView,btnViewAll;
              SQLiteDatabase db;
              /** Called when the activity is first created. */
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
```

```
editEmpid=(EditText)findViewById(R.id.editEmpid);
             editName=(EditText)findViewById(R.id.editName);
             editsalary=(EditText)findViewById(R.id.editsalary);
             btnAdd=(Button)findViewById(R.id.btnAdd);
             btnDelete=(Button)findViewById(R.id.btnDelete);
             btnModify=(Button)findViewById(R.id.btnModify);
             btnView=(Button)findViewById(R.id.btnView);
             btnViewAll=(Button)findViewById(R.id.btnViewAll);
             btnAdd.setOnClickListener(this);
             btnDelete.setOnClickListener(this);
             btnModify.setOnClickListener(this);
             btnView.setOnClickListener(this);
             btnViewAll.setOnClickListener(this);
             db=openOrCreateDatabase("EmployeeDB", Context.MODE_PRIVATE, null);
             db.execSQL("CREATE TABLE IF NOT EXISTS employee(empid VARCHAR,name
VARCHAR, salary VARCHAR);");
       }
      public void onClick(View view)
      if(view==btnAdd)
       {
      if(editEmpid.getText().toString().trim().length()==0||
      editName.getText().toString().trim().length()==0||
      editsalary.getText().toString().trim().length()==0)
      showMessage("Error", "Please enter all values");
      return;
       }
      db.execSQL("INSERT INTO employee VALUES("+editEmpid.getText()+"","+editName.getText()+
      "",""+editsalary.getText()+"");");
      showMessage("Success", "Record added");
```

```
clearText();
      if(view==btnDelete)
      if(editEmpid.getText().toString().trim().length()==0)
       {
      showMessage("Error", "Please enter Employee id");
      return;
       }
      Cursor c=db.rawQuery("SELECT * FROM employee WHERE empid=""+editEmpid.getText()+""",
null);
      if(c.moveToFirst())
       {
      db.execSQL("DELETE FROM employee WHERE empid=""+editEmpid.getText()+""");
      showMessage("Success", "Record Deleted");
       }
      else
      showMessage("Error", "Invalid Employee id");
       }
      clearText();
       }
      if(view==btnModify)
       {
             if(editEmpid.getText().toString().trim().length()==0)
              showMessage("Error", "Please enter Employee id");
              return;
             Cursor c=db.rawQuery("SELECT * FROM employee WHERE
empid=""+editEmpid.getText()+""", null);
              if(c.moveToFirst())
```

```
db.execSQL("UPDATE employee SET
name=""+editName.getText()+"",salary=""+editsalary.getText()+"" WHERE
empid=""+editEmpid.getText()+""");
              showMessage("Success", "Record Modified");
              }
              else
              {
              showMessage("Error", "Invalid Rollno");
              clearText();
              if(view==btnView)
              if(editEmpid.getText().toString().trim().length()==0)
              {
              showMessage("Error", "Please enter Employee id");
              return;
              Cursor c=db.rawQuery("SELECT * FROM employee WHERE
empid=""+editEmpid.getText()+""", null);
              if(c.moveToFirst())
              editName.setText(c.getString(1));
              editsalary.setText(c.getString(2));
              }
              else
              showMessage("Error", "Invalid Employee id");
              clearText();
```

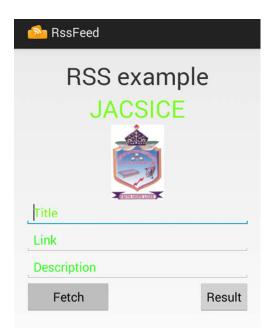
```
if(view==btnViewAll)
       Cursor c=db.rawQuery("SELECT * FROM employee", null);
       if(c.getCount()==0)
       {
              showMessage("Error", "No records found");
              return;
              }
              StringBuffer buffer=new StringBuffer();
              while(c.moveToNext())
              buffer.append("Employee id: "+c.getString(0)+"\n");
              buffer.append("Name: "+c.getString(1)+"\n");
              buffer.append("salary: "+c.getString(2)+"\n\n");
              }
              showMessage("Employee details Details", buffer.toString());
              }
}
public void showMessage(String title,String message)
Builder builder=new Builder(this);
builder.setCancelable(true);
builder.setTitle(title);
builder.setMessage(message);
builder.show();
}
public void clearText()
editEmpid.setText("");
```

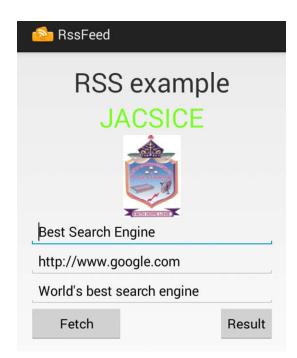
```
editName.setText("");
editsalary.setText("");
editEmpid.requestFocus();
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
       // Inflate the menu; this adds items to the action bar if it is present.
       getMenuInflater().inflate(R.menu.main, menu);
       return true;
}
@Override
public boolean onOptionsItemSelected(MenuItem item) {
       // Handle action bar item clicks here. The action bar will
       // automatically handle clicks on the Home/Up button, so long
       // as you specify a parent activity in AndroidManifest.xml.
       int id = item.getItemId();
       if (id == R.id.action settings) {
              return true;
       return super.onOptionsItemSelected(item);
}
```

}

#### **Strings.xml**

</resources>





# Second

This XML file does not appear to have any style information associated with it. The document tree is shown below.



<ImageView

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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">
 <TextView android:text="RSS example"</pre>
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:id="@+id/textview"
   android:textSize="35dp"
   android:layout alignParentTop="true"
   android:layout centerHorizontal="true" />
 <TextView
   android:id="@+id/textView"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout below="@+id/textview"
   android:layout centerHorizontal="true"
   android:text="JACSICE"
   android:textColor="#ff7aff24"
   android:textSize="35dp" />
```

```
android:id="@+id/imageView"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_below="@+id/textView"

android:layout_centerHorizontal="true"

android:src="@drawable/jacsice"/>
```

#### <EditText

android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:id="@+id/editText"
android:layout\_below="@+id/imageView"
android:hint="Title"
android:textColorHint="#ff69ff0e"
android:layout\_alignParentRight="true"
android:layout\_alignParentEnd="true"
android:layout\_alignParentLeft="true"
android:layout\_alignParentStart="true" />

#### <EditText

android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:id="@+id/editText2"
android:layout\_below="@+id/editText"
android:layout\_alignLeft="@+id/editText"
android:layout\_alignStart="@+id/editText"
android:textColorHint="#ff21ff11"
android:hint="Link"
android:layout\_alignRight="@+id/editText"
android:layout\_alignRight="@+id/editText"

```
<EditText
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:id="@+id/editText3"
   android:layout below="@+id/editText2"
   android:layout alignLeft="@+id/editText2"
   android:layout alignStart="@+id/editText2"
   android:hint="Description"
   android:textColorHint="#ff33ff20"
   android:layout alignRight="@+id/editText2"
   android:layout alignEnd="@+id/editText2" />
 <Button
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:text="Fetch"
   android:id="@+id/button"
   android:layout below="@+id/editText3"
   android:layout alignParentLeft="true"
   android:layout alignParentStart="true"
   android:layout toLeftOf="@+id/imageView"
   android:layout toStartOf="@+id/imageView"/>
 <Button
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:text="Result"
   android:id="@+id/button2"
   android:layout alignTop="@+id/button"
   android:layout alignRight="@+id/editText3"
   android:layout alignEnd="@+id/editText3"/>
</RelativeLayout>
```

#### MainActivity.java

```
package com.example.rssfeed;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends Activity {
       private EditText title, link, description;
       private Button b1, b2;
       //private String finalUrl = "http://192.168.1.83:8080/android/ex6/searchengines.xml";
       private String finalUrl = "http://android.jacsice.in/searchengines.xml";
       //private String finalUrl = "http://android.jacsice.in/colleges.xml";
       private HandleXML obj;
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
              title = (EditText) findViewById(R.id.editText);
              link = (EditText) findViewById(R.id.editText2);
              description = (EditText) findViewById(R.id.editText3);
              b1 = (Button) findViewById(R.id.button);
```

```
b2 = (Button) findViewById(R.id.button2);
              b1.setOnClickListener(new View.OnClickListener() {
                     @Override
                     public void onClick(View v) {
                             obj = new HandleXML(finalUrl);
                            obj.fetchXML();
                             while (obj.parsingComplete);
                            title.setText(obj.getTitle());
                            link.setText(obj.getLink());
                            description.setText(obj.getDescription());
                      }
              });
              b2.setOnClickListener(new View.OnClickListener() {
                     @Override
                     public void onClick(View v) {
                            Intent in = new Intent(MainActivity.this, Second.class);
                            startActivity(in);
                      }
              });
       }
}
HandleXML.java
package com.example.rssfeed;
```

```
import java.io.InputStream;
import java.net.HttpURLConnection;
import java.net.URL;
```

```
import org.xmlpull.v1.XmlPullParser;
import org.xmlpull.v1.XmlPullParserFactory;
public class HandleXML {
 private String title = "title";
 private String link = "link";
 private String description = "description";
 private String urlString = null;
 private XmlPullParserFactory xmlFactoryObject;
 public volatile boolean parsingComplete = true;
 public HandleXML(String url){
   this.urlString = url;
  }
 public String getTitle(){
   return title;
  }
 public String getLink(){
   return link;
 public String getDescription(){
   return description;
  }
  public void parseXMLAndStoreIt(XmlPullParser myParser) {
   int event;
   String text=null;
```

```
try {
 event = myParser.getEventType();
 while (event != XmlPullParser.END_DOCUMENT) {
 String name=myParser.getName();
 switch (event){
   case XmlPullParser.START_TAG:
   break;
   case XmlPullParser.TEXT:
   text = myParser.getText();
   break;
   case XmlPullParser.END_TAG:
   if(name.equals("title")){
     title = text;
   }
   else if(name.equals("link")){
     link = text;
   }
   else if(name.equals("description")){
     description = text;
   }
   else{
```

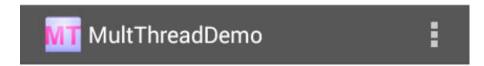
```
break;
  }
 event = myParser.next();
  }
 parsingComplete = false;
 catch (Exception e) {
   e.printStackTrace();
 }
public void fetchXML(){
 Thread thread = new Thread(new Runnable(){
   @Override
   public void run() {
   try {
   URL url = new URL(urlString);
   HttpURLConnection conn = (HttpURLConnection) url.openConnection();
   conn.setReadTimeout(10000 /* milliseconds */); // 10000
   conn.setConnectTimeout(15000 /* milliseconds */); //15000
   conn.setRequestMethod("GET");
   conn.setDoInput(true);
   // Starts the query
   conn.connect();
```

```
InputStream stream = conn.getInputStream();
        xmlFactoryObject = XmlPullParserFactory.newInstance();
        XmlPullParser myparser = xmlFactoryObject.newPullParser();
        myparser.setFeature(XmlPullParser.FEATURE_PROCESS_NAMESPACES, false);
        myparser.setInput(stream, null);
        parseXMLAndStoreIt(myparser);
        stream.close();
       }
      catch (Exception e) {
       }
   });
   thread.start();
activity_second.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
 android:orientation="vertical" android:layout_width="match_parent"
 android:layout height="match parent">
 <WebView
   android:layout width="match parent"
   android:layout height="match parent"
   android:id="@+id/webView"
```

```
android:layout_gravity="center_horizontal" />
</LinearLayout>
```

#### SecondActivity.java

```
package com.example.rssfeed;
import android.app.Activity;
import android.os.Bundle;
import android.webkit.WebView;
public class SecondActivity extends Activity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity second);
   WebView w1=(WebView)findViewById(R.id.webView);
   //w1.loadUrl("http://192.168.1.83:8080/android/ex6/searchengines.xml");
   w1.loadUrl("http://android.jacsice.in/searchengines.xml");
   //w1.loadUrl("http://android.jacsice.in/colleges.xml");
 }
searchengines.xml
<rss version="2.0">
<channel>
<title>Best Search Engine</title>
<link>http://www.google.com</link>
<description>World's best search engine</description>
</channel>
</rss>
```



## Start MULTITHREAD

Main thread





## Start MULTITHREAD



- In thread 1 0
- In thread 2 1
- In thread 3 2
- In thread 1 3
- In thread 2 4
- In thread 3 5
- In thread 1 6
- In thread 2 7
- In thread 3 8
- In thread 1 9
- In thread 2 10
- In thread 3 11
- -- Already Running
- In thread 1 12
- In thread 2 13
- In thread 3 14
- Finished Run
- -- Finished Run



```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
                    xmlns:android="http://schemas.android.com/apk/res/android"
                            android:layout width="match parent"
                            android:layout height="match parent"
                            android:orientation="vertical"
                            android:id="@+id/info" >
       <Button
                     android:id="@+id/button1"
                     android:layout width="match parent"
                     android:layout height="wrap content"
                     android:onClick="fetchData"
                    android:text="Start MULTITHREAD" />
      <TextView
                     android:id="@+id/textView1"
                     android:layout width="wrap content"
                     android:layout height="wrap content"
                    android:text="Main thread" />
</LinearLayout>
MainActivity.java
package com.example.multthreaddemo;
import android.app.Activity;
import android.os.Bundle;
import android.os.Handler;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.TextView;
```

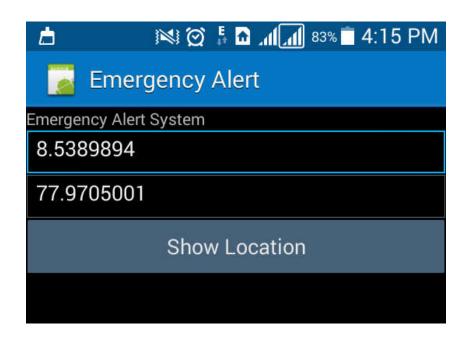
public class MainActivity extends Activity {

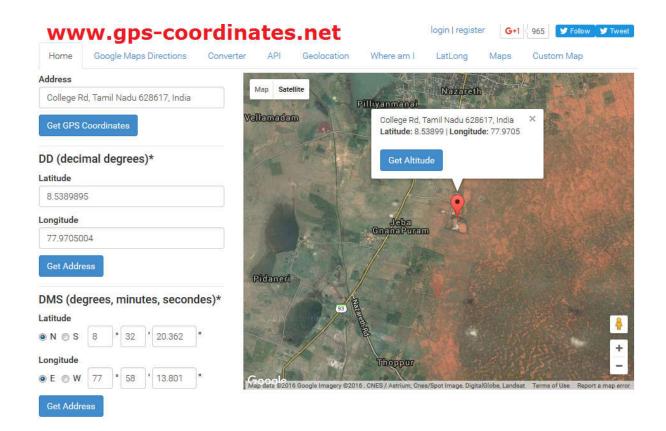
```
private TextView tvOutput;
private static final int t1 = 1;
private static final int t2 = 2;
private static final int t3 = 3;
private static int counter=0;
private boolean start=true;
private static int ft=0;
@Override
protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity main);
       tvOutput = (TextView) findViewById(R.id.textView1);
       //below initializations are useful when the application restarts or resumes.
       counter =0;
       start = true;
       ft=0;
}
public void fetchData(View v) {
       if(start){
               tvOutput.setText("Main thread");
               thread1.start();
               thread2.start();
               thread3.start();
               start=false;
       }else{
               if(ft!=3)
               {tvOutput.append("\n -- Already Running");}
               else {tvOutput.append("\n -- Finished Run");}
               }
       }
       Thread thread1 = new Thread(new Runnable() {
```

```
@Override
public void run() {
       for (int i = 0; i < 5; i++)
              try {
                      Thread.sleep(1000);
                      } catch (InterruptedException e) {
                                    e.printStackTrace();
                      }
              handler.sendEmptyMessage(t1);
       ft++;
       }
});
Thread thread2 = new Thread(new Runnable() {
@Override
public void run() {
       for (int i = 0; i < 5; i++)
              try {
                      Thread.sleep(1000);
                      } catch (InterruptedException e) {
                                            e.printStackTrace();
              handler.sendEmptyMessage(t2);
               }
       ft++;
       }
});
Thread thread3 = new Thread(new Runnable() {
@Override
```

```
public void run() {
                      for (int i = 0; i < 5; i++)
                      {
                      try {
                             Thread.sleep(1000);
                             } catch (InterruptedException e) {
                                            e.printStackTrace();
                      handler.sendEmptyMessage(t3);
              ft++;
               }
       });
Handler handler = new Handler() {
public void handleMessage(android.os.Message msg) {
       if(msg.what == t1) {
       tvOutput.append("\nIn thread 1"+" - "+(counter++));
                          }
       if(msg.what == t2)  {
       tvOutput.append("\nIn thread 2"+" - "+(counter++));
       if(msg.what == t3) {
       tvOutput.append("\nIn thread 3"+" - "+(counter++));
                      }
               }
                             };
```

}





```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  android:orientation="vertical"
  android:layout width="fill parent"
  android:layout height="fill parent">
 <TextView
        android:layout width="fill parent"
        android:layout height="wrap content"
        android:text="Display GPS Location"/>
 <EditText
    android:id="@+id/editTextLat"
    android:layout width="fill parent"
    android:layout height="wrap content"
    android:gravity="top" />
 <EditText
    android:id="@+id/textlon"
    android:layout width="fill parent"
    android:layout_height="wrap_content"
    android:gravity="top" />
 <Button
    android:id="@+id/buttonSend"
    android:layout width="fill parent"
    android:layout height="wrap content"
    android:text="Show Location"
    android:onClick="showLocation" />
</LinearLayout>
```

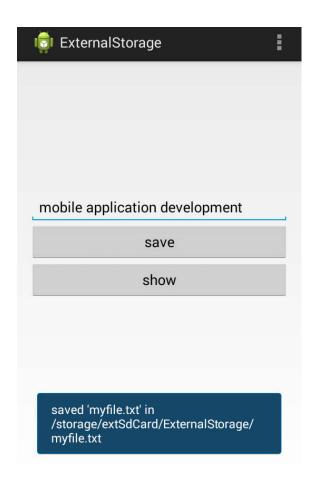
### MainActivity.java

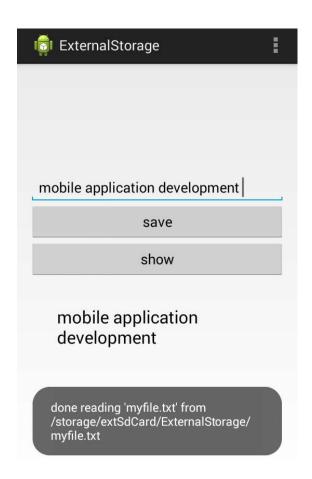
```
package com.example.gpslocation;
import android.app.Activity;
import android.os.Bundle;
import android.content.Context;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends Activity {
      EditText textLat;
      EditText textlon;
      @Override
      protected void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            setContentView(R.layout.activity main);
            textLat = (EditText) findViewById(R.id.editTextLat);
            textlon = (EditText) findViewById(R.id.textlon);
            LocationManager mlocManager =
(LocationManager)getSystemService(Context.LOCATION SERVICE);
            LocationListener mlocListener = new MyLocationListener();
```

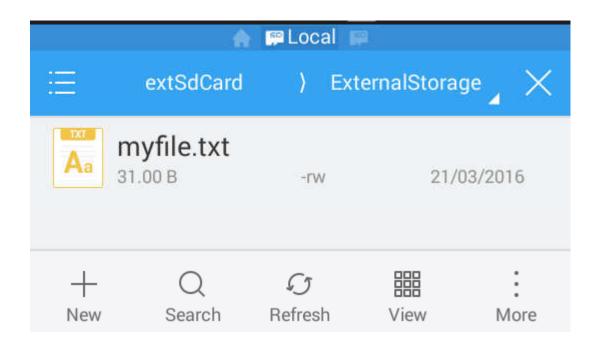
```
mlocManager.requestLocationUpdates(LocationManager.GPS PROVIDER, 0, 0,
mlocListener);
           // two provider: 1.GPS PROVIDER 2.NETWORK PROVIDER
// Use GPS PROVIDER for Emulator, NETWORK PROVIDER for Mobile data in Mobile.
      }
public class MyLocationListener implements LocationListener
{
      public void onLocationChanged(Location loc)
      {
            loc.getLatitude();
            loc.getLongitude();
            Double lat=loc.getLatitude();
            Double lon=loc.getLongitude();
            textLat.setText(lat.toString());
           textlon.setText(lon.toString());
      }
      public void onProviderDisabled(String provider)
      {
           Toast.makeText( getApplicationContext(),"Gps
Disabled", Toast. LENGTH SHORT). show();
      }
      public void onProviderEnabled(String provider)
      {
            Toast.makeText( getApplicationContext(), "Gps
Enabled",Toast.LENGTH SHORT).show();
```

```
}
      public void onStatusChanged(String provider, int status, Bundle extras)
      \{\}
}
public void showLocation(View v){
      Toast.makeText(getApplicationContext(),"Your Location is \nLatitude:
"+textLat.getText().toString()+"\nLongitude: "+textlon.getText().toString(),
Toast.LENGTH_LONG).show();
}
AndroidManifest.xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.gpslocation"
  android:versionCode="1"
  android:versionName="1.0" >
  <uses-sdk
    android:minSdkVersion="17"
    android:targetSdkVersion="17" />
<uses-permission android:name="android.permission.ACCESS FINE LOCATION" />
```

```
<application
    android:allowBackup="true"
    android:icon="@drawable/ic launcher"
    android:label="@string/app name"
    android:theme="@style/AppTheme" >
    <activity
      android:name=".MainActivity"
      android:label="@string/app_name" >
      <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
      </intent-filter>
    </activity>
  </application>
</manifest>
```







## **AndroidManifest.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.writingsdcard"
  android:versionCode="1"
  android:versionName="1.0" >
  <uses-sdk
    android:minSdkVersion="17"
    android:targetSdkVersion="17" />
  <uses-permission android:name="android.permission.READ EXTERNAL STORAGE"/>
  <uses-permission android:name="android.permission.WRITE EXTERNAL STORAGE"/>
  <application
    android:allowBackup="true"
    android:icon="@drawable/ic launcher"
    android:label="@string/app name"
    android:theme="@style/AppTheme" >
    <activity
      android:name=".MainActivity"
      android:label="@string/app name" >
      <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
      </intent-filter>
    </activity>
  </application>
</manifest>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:id="@+id/LinearLayout1"
  android:layout width="match parent"
  android:layout height="match parent"
  android:gravity="center"
  android:orientation="vertical"
  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="match parent"
    android:layout height="wrap content"
    android:ems="10"/>
  <Button
    android:id="@+id/buttonone"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:text="save" />
```

```
<Button
     android:id="@+id/buttontwoss"
     android:layout width="match parent"
     android:layout height="wrap content"
     android:text="show" />
  <TextView
     android:id="@+id/result"
     android:layout width="wrap content"
     android:layout height="wrap content"
     android:layout margin="35dp"
     android:text=""
     android:textAppearance="?android:attr/textAppearanceLarge" />
</LinearLayout>
MainActivity.java
package com.example.writingsdcard;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.OutputStreamWriter;
import android.app.Activity;
import android.os.Bundle;
```

```
import android.os.Environment;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends Activity {
       private Button b1, b2;
       private EditText e;
       private String path = Environment.getExternalStorageDirectory().getPath()
                     + "/myfile.txt";
       private TextView result;
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
              b1 = (Button) findViewById(R.id.buttonone);
              b2 = (Button) findViewById(R.id.buttontwoss);
              e = (EditText) findViewById(R.id.editText1);
              result = (TextView) findViewById(R.id.result);
              b1.setOnClickListener(new OnClickListener() {
                     @Override
                     public void onClick(View arg0) {
                            try {
                                    File myfile = new File(path);
```

```
myfile.createNewFile();
                                    FileOutputStream fos = new FileOutputStream(myfile);
                                    OutputStreamWriter out = new OutputStreamWriter(fos);
                                    out.append(e.getText());
                                    out.close();
                                    fos.close();
                                    Toast.makeText(getApplicationContext(),
                                                  "saved 'myfile.txt' in "+path,
Toast.LENGTH LONG).show();
                             } catch (IOException e) {
                                    e.printStackTrace();
                                    Toast.makeText(getBaseContext(), e.getMessage(),
                                                  Toast.LENGTH LONG).show();
                             }
                     }
              });
              b2.setOnClickListener(new OnClickListener() {
                     @Override
                     public void onClick(View arg0) {
                             try {
                                    File myFile = new File(path);
                                    FileInputStream fis = new FileInputStream(myFile);
                                    BufferedReader bd = new BufferedReader(
                                                  new InputStreamReader(fis));
                                    String adata = "";
                                    String buff = "";
                                    while ((adata = bd.readLine()) != null) {
                                           buff += adata + "\n";
                                    }
                                    result.setText(buff);
```

```
bd.close();
                                   Toast.makeText(getBaseContext(), "done reding 'myfile.txt from "+path,
                                                Toast.LENGTH LONG).show();
                            } catch (FileNotFoundException e) {
                                  // TODO Auto-generated catch block
                                   e.printStackTrace();
                            } catch (IOException e) {
                                  // TODO Auto-generated catch block
                                   e.printStackTrace();
                            }
                     }
             });
       }
}
Strings.xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <string name="app_name">writingsdcard</string>
  <string name="hello world">Hello world!</string>
  <string name="action settings">Settings</string>
</resources>
```





# **BroadcastReceiverNewSms**

When new SMS will come it will show a alert message.

✓ VT-VFCARE: Hello, you have 816.10 MB free



## BroadcastReceiverNewSms

When new SMS will come it will show a alert message.

senderNum: VT-VFCARE, message: Hello, you have 816.10 MB free usage balance valid till 06/Apr/2016 11:59:59 PM. Charges post free usage will be as per your plan.

#### AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.displaynotification"
  android:versionCode="1"
  android:versionName="1.0" >
  <uses-sdk
    android:minSdkVersion="17"
    android:targetSdkVersion="17"/>
  <uses-permission android:name="android.permission.RECEIVE SMS" />
  <uses-permission android:name="android.permission.READ SMS" />
  <uses-permission android:name="android.permission.SEND SMS" />
  <application
    android:allowBackup="true"
    android:icon="@drawable/ic launcher"
    android:label="@string/app name"
    android:theme="@style/AppTheme" >
    <activity
      android:name=".MainActivity"
      android:label="@string/app name" >
      <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
      </intent-filter>
    </activity>
```

```
<receiver android:name="com.example.displaynotification.Notification" >
      <intent-filter>
         <action android:name="android.provider.Telephony.SMS_RECEIVED" />
      </intent-filter>
</receiver>
  </application>
</manifest>
activity main.xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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="com.example.displaynotification.MainActivity" >
  <TextView
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout centerHorizontal="true"
    android:layout centerVertical="true"
    android:text="When new SMS will come it will show a alert message." />
</RelativeLayout>
```

#### MainActivity.java

```
package com.example.displaynotification;
import android.app.Activity;
import android.os.Bundle;
public class MainActivity extends Activity {
         @Override
         protected void onCreate(Bundle savedInstanceState) {
               super.onCreate(savedInstanceState);
               setContentView(R.layout.activity_main);
          }
}
```

#### Notification.java

```
package com.example.displaynotification;

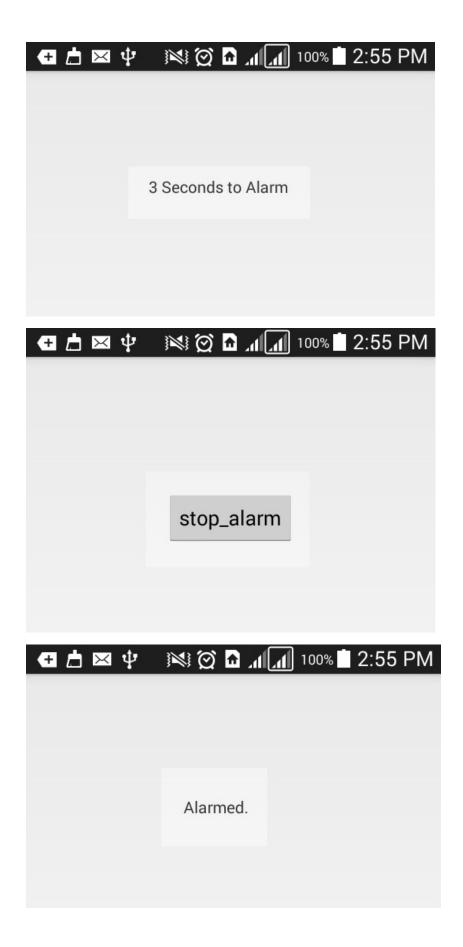
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.telephony.SmsMessage;
import android.util.Log;
import android.widget.Toast;

public class Notification extends BroadcastReceiver {
    // Get the object of SmsManager
    final SmsManager sms = SmsManager.getDefault();

public void onReceive(Context context, Intent intent) {
```

```
final Bundle bundle = intent.getExtras();
                     try {
                            if (bundle != null) {
                                    final Object[] pdusObj = (Object[]) bundle.get("pdus");
                                    for (int i = 0; i < pdusObj.length; i++) {
SmsMessage currentMessage = SmsMessage.createFromPdu((byte[]) pdusObj[i]);
String phoneNumber = currentMessage.getDisplayOriginatingAddress();
                                 String senderNum = phoneNumber;
                                 String message = currentMessage.getDisplayMessageBody();
              Log.i("SmsReceiver", "senderNum: "+ senderNum + "; message: " + message);
                                 int duration = Toast.LENGTH LONG;
Toast toast = Toast.makeText(context, "senderNum: "+ senderNum + ", message: " + message, duration);
                                           toast.show();
                                    } // end for loop
               } // bundle is null
                     } catch (Exception e) {
                            Log.e("SmsReceiver", "Exception smsReceiver" +e);
       }
                     }
                                    }
```

// Retrieves a map of extended data from the intent.



## **AndroidManifest.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.alarm final"
  android:versionCode="1"
  android:versionName="1.0" >
  <uses-sdk
    android:minSdkVersion="8"
    android:targetSdkVersion="17" />
  <application
    android:allowBackup="true"
    android:icon="@drawable/ic launcher"
    android:label="@string/app name"
    android:theme="@style/AppTheme" >
    <activity
      android:name="com.example.alarm final.MainActivity"
      android:label="@string/app name" >
       <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
       </intent-filter>
    </activity>
    <activity
      android:name="com.example.alarm final.AlarmReceiverActivity"
      android:label="@string/title activity alarm receiver" >
    </activity>
  </application> </manifest>
```

## activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  android:id="@+id/rl1"
  android:layout width="fill parent"
  android:layout height="fill parent"
  android:gravity="center"
  android:orientation="vertical" >
   <TextView
    android:id="@+id/test"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="alarm hello"/>
</RelativeLayout>
MainActivity.java
package com.example.alarm final;
import java.util.Calendar;
import android.app.Activity;
import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
import android.view.MotionEvent;
import android.view.View;
import android.view.Window;
import android.view.View.OnTouchListener;
import android.widget.RelativeLayout;
```

```
import android.widget.TextView;
public class MainActivity extends Activity implements OnTouchListener {
      private TextView tv;
      private static final int t1 = 1;
      private static final int finished = 2;
      private static int counter=4;// Current second is 5th second
      //private static Bundle b;
      @Override
      public void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            //this.b=savedInstanceState;
            this.requestWindowFeature(Window.FEATURE NO TITLE);
            setContentView(R.layout.activity main);
            final RelativeLayout rl = (RelativeLayout) findViewById(R.id.rl1);
            tv = (TextView)findViewById(R.id.test);
            rl.setOnTouchListener(this);
            // Create an offset from the current time in which the alarm will go
            // off.
            Calendar cal = Calendar.getInstance();
            cal.add(Calendar.SECOND, 5);
            tv.setText("Alarm in 5 Seconds");
            // Create a new PendingIntent and add it to the AlarmManager
            Intent intent = new Intent(this, AlarmReceiverActivity.class);
            //startActivity(intent);
PendingIntent pendingIntent = PendingIntent.getActivity(this, 12345, intent,
PendingIntent.FLAG CANCEL CURRENT);
```

//pending intent means gets an intent and waits to trigger ro start

```
AlarmManager am = (AlarmManager)
getSystemService(Activity.ALARM_SERVICE);
            am.set(AlarmManager.RTC WAKEUP, cal.getTimeInMillis(), pendingIntent);
            //AlarmManager.RTC WAKEUP -- if an application is in closed state, at that
time also the activity is triggered.
            //RTC - real time clock
                  startthread(getWindow().getDecorView().getRootView());
      }
      public void startthread(View v){
            tv.setText("Start Running");
            thread1.start();
      }
      Thread thread1 = new Thread(new Runnable() {
            @Override
            public void run() {
                  for (int i = 0; i < 5; i++)
                        try {
                              Thread.sleep(1000);
                              } catch (InterruptedException e) {
                                           e.printStackTrace();
                        if(counter>0)
                               {handler.sendEmptyMessage(t1);}
                        else{handler.sendEmptyMessage(finished);}
                        }
            });
```

```
Handler handler = new Handler() {
            public void handleMessage(android.os.Message msg) {
      if(msg.what == t1) { tv.setText((counter--)+" Seconds to Alarm");}
      if(msg.what == finished) { tv.setText("Alarmed.");
public boolean onTouch(View v, MotionEvent event) {
    int action = event.getAction();
    switch(action){
       case MotionEvent.ACTION DOWN:
            Calendar cal1 = Calendar.getInstance();
            cal1.add(Calendar.SECOND, 5);
            Intent intent1 = new Intent(this, AlarmReceiverActivity.class);
            PendingIntent pendingIntent1 = PendingIntent.getActivity(this, 12345,intent1,
PendingIntent.FLAG_CANCEL_CURRENT);
            AlarmManager am = (AlarmManager)
getSystemService(Activity.ALARM SERVICE);
            am.set(AlarmManager.RTC WAKEUP, cal1.getTimeInMillis(), pendingIntent1);
            Thread t1 = new Thread(thread1);
            counter = 4; // Current second is 5th second
            t1.start();
       break;
    return true;
```