**Example for Activity Life cycle**

**Code for .java :**

package example.javatpoint.com.activitylifecycle;

import android.app.Activity;

import android.os.Bundle;

import android.util.Log;

public class MainActivity extends Activity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Log.d("lifecycle","onCreate invoked");

}

@Override

protected void onStart() {

super.onStart();

Log.d("lifecycle","onStart invoked");

}

@Override

protected void onResume() {

super.onResume();

Log.d("lifecycle","onResume invoked");

}

@Override

protected void onPause() {

super.onPause();

Log.d("lifecycle","onPause invoked");

}

@Override

protected void onStop() {

super.onStop();

Log.d("lifecycle","onStop invoked");

}

@Override

protected void onRestart() {

super.onRestart();

Log.d("lifecycle","onRestart invoked");

}

@Override

protected void onDestroy() {

super.onDestroy();

Log.d("lifecycle","onDestroy invoked");

}

}

**Code for xml:**

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

**<android.support.constraint.ConstraintLayout** 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"

    tools:context="example.javatpoint.com.activitylifecycle.MainActivity"**>**

**<TextView**

        android:layout\_width="wrap\_content"

        android:layout\_height="wrap\_content"

        android:text="Hello World!"

        app:layout\_constraintBottom\_toBottomOf="parent"

        app:layout\_constraintLeft\_toLeftOf="parent"

        app:layout\_constraintRight\_toRightOf="parent"

        app:layout\_constraintTop\_toTopOf="parent" **/>**

**</android.support.constraint.ConstraintLayout>**

**Implicit Intent**

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

<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">

<EditText

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/urlText"

android:layout\_alignParentTop="true"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="100dp"

android:ems="10" />

<Button

android:id="@+id/btnNavigate"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentBottom="true"

android:layout\_centerHorizontal="true"

android:layout\_marginBottom="224dp"

android:text="Navigate" />

</RelativeLayout>

**Code for Main\_activity.java**

**package** com.example.veena.impl;

**import** android.content.Intent;

**import** android.net.Uri;

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

**import** android.os.Bundle;

**import** android.view.View;

**import** android.widget.Button;

**import** android.widget.EditText;

**public class** MainActivity **extends** AppCompatActivity {

@Override

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

**super**.onCreate(savedInstanceState);

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

**final** EditText editText = (EditText)findViewById(R.id.***urlText***);

Button btn = (Button) findViewById(R.id.***btnNavigate***);

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

@Override

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

String url = editText.getText().toString();

Intent intent = **new** Intent(Intent.***ACTION\_VIEW***, Uri.*parse*(url));

startActivity(intent);

}

});

}

}

**Explicit Intent**

**first\_activity.java**

**package** com.example.veena.sampleapplication;

**import** android.content.Intent;

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

**import** android.os.Bundle;

**import** android.view.View;

**public class** MainActivity **extends** AppCompatActivity {

@Override

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

**super**.onCreate(savedInstanceState);

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

}

**public void** openActivity(View view)

{

Intent i = **new** Intent(MainActivity.**this**,SecondActivity.**class**);

startActivity(i);

}

}

**second activity.java**

**package** com.example.veena.sampleapplication;

**import** android.content.Intent;

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

**import** android.os.Bundle;

**import** android.view.View;

**public class** SecondActivity **extends** AppCompatActivity {

@Override

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

**super**.onCreate(savedInstanceState);

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

}

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

Intent i = **new** Intent(SecondActivity.**this**,MainActivity.**class**);

startActivity(i);

}

}

**Activity\_first.xml:**

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

<RelativeLayout 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"

tools:context=".MainActivity">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentTop="true"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="171dp"

android:onClick="openActivity"

android:text="Go to Second Activity" />

</RelativeLayout>

**Activity\_second.xml**

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

<RelativeLayout 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"

tools:context=".SecondActivity">

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentStart="true"

android:onClick="openSecondActivity"

android:layout\_alignParentTop="true"

android:layout\_marginStart="98dp"

android:layout\_marginTop="207dp"

android:text="Go to First Activity" />

</RelativeLayout>

**Manifest.xml**

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

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

package="com.example.veena.sampleapplication">

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/AppTheme">

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity android:name=".SecondActivity"></activity>

</application>

</manifest>

XML CODE FOR LINEAR LAYOUT

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

    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent">  
    <TextView  
        android:id="@+id/fstTxt"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Enter Name"  
         />  
    <EditText  
        android:id="@+id/name"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:ems="10">  
    </EditText>  
    <Button  
        android:id="@+id/getName"  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Get Name" />  
</LinearLayout>

**XML CODE FOR CONSTRAINT LAYOUT**

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

<android.support.constraint.ConstraintLayout 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"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Hello World!"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/editText"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="8dp"

android:layout\_marginEnd="8dp"

android:layout\_marginLeft="8dp"

android:layout\_marginRight="8dp"

android:layout\_marginStart="8dp"

android:layout\_marginTop="8dp"

android:ems="10"

android:inputType="textEmailAddress"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.437"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.436" />

<EditText

android:id="@+id/editText2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="8dp"

android:layout\_marginEnd="8dp"

android:layout\_marginLeft="8dp"

android:layout\_marginRight="8dp"

android:layout\_marginStart="8dp"

android:layout\_marginTop="8dp"

android:ems="10"

android:inputType="textPassword"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.503"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.632" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="8dp"

android:layout\_marginEnd="8dp"

android:layout\_marginLeft="8dp"

android:layout\_marginRight="8dp"

android:layout\_marginStart="8dp"

android:layout\_marginTop="8dp"

android:text="Button"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.501"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.936" />

<ImageView

android:id="@+id/imageView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="8dp"

android:layout\_marginEnd="8dp"

android:layout\_marginLeft="8dp"

android:layout\_marginRight="8dp"

android:layout\_marginStart="8dp"

android:layout\_marginTop="8dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.136"

app:srcCompat="@mipmap/ic\_launcher" />

</android.support.constraint.ConstraintLayout>

**RELATIVE LAYOUT**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:paddingLeft="10dp"  
 android:paddingRight="10dp">  
 <Button  
 android:id="@+id/btn1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentLeft="true"  
 android:text="Button1" />  
 android:text="Button2" />  
 <Button  
 android:id="@+id/btn3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentLeft="true"  
 android:layout\_centerVertical="true"  
 android:text="Button3" />  
  
 <Button  
 android:id="@+id/btn4"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentBottom="true"  
 android:text="Button4" />  
 <Button  
 android:id="@+id/btn6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_above="@+id/btn4"  
 android:layout\_centerHorizontal="true"  
 android:text="Button6" />  
 <Button  
 android:id="@+id/btn7"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_toEndOf="@+id/btn1"  
 android:layout\_toRightOf="@+id/btn1"  
 android:layout\_alignParentRight="true"  
 android:text="Button7" />  
</RelativeLayout>

**Toast Message and event Handling**

**Xml code :**

<android.support.constraint.ConstraintLayout 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:id="@+id/activity\_main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
  
 <EditText  
 android:id="@+id/num1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="296dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:hint="Enter First Number"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.502"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.92"  
 tools:ignore="MissingConstraints" />  
  
 <Button  
 android:id="@+id/sum"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
  
 android:layout\_marginBottom="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:text="Show Sum"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.526"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.813"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
 android:id="@+id/num2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:hint="Enter Second Number"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.568"  
 tools:ignore="MissingConstraints" />  
  
</android.support.constraint.ConstraintLayout>

**Mainactivity.java**

package com.example.veena.toast;  
  
import android.support.v7.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 private EditText num1, num2;  
 private Button sum;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 addListenerOnButton();  
 }  
 public void addListenerOnButton(){  
 num1=(EditText) findViewById(R.id.*num1*);  
 num2=(EditText) findViewById(R.id.*num2*);  
 sum=(Button) findViewById(R.id.*sum*);  
 sum.setOnClickListener(new View.OnClickListener(){  
 @Override  
 public void onClick(View v) {  
 String value1=num1.getText().toString();  
 String value2=num2.getText().toString();  
 int a0 = Integer.*parseInt*(value1);  
 int b = Integer.*parseInt*(value2);  
 int sum = a+b;  
  
 Toast.*makeText*(getApplicationContext(), String.*valueOf*(sum), Toast.*LENGTH\_LONG*).show();  
 }  
 });  
 }  
}

CALCULATOR

package com.example.veena.arthmetic;

import android.app.Activity;

import android.os.Bundle;

import android.view.View;

import android.view.View.OnClickListener;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends Activity {

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button btnsum = (Button) findViewById(R.id.buttonsum);

Button btnsub = (Button) findViewById(R.id.buttonsub);

Button btndiv = (Button) findViewById(R.id.buttondiv);

Button btnmul = (Button) findViewById(R.id.buttonmul);

final EditText etv = (EditText) findViewById(R.id.editText1);

final EditText etv2 = (EditText) findViewById(R.id.editText2);

final TextView result = (TextView) findViewById(R.id.textView1);

btnsum.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

int x = new Integer(etv.getText().toString());

int y = new Integer(etv2.getText().toString());

int sum = x + y; //Perform Maths operation

result.setText("The ouput is" + sum);

}

});

btnsub.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

int x = new Integer(etv.getText().toString());

int y = new Integer(etv2.getText().toString());

int sub = x - y;

result.setText("The ouput is" + sub);

}

});

btndiv.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

int x = new Integer(etv.getText().toString());

int y = new Integer(etv2.getText().toString());

int div = x / y; //Perform Maths operation

result.setText("The ouput is" + div);

}

});

btnmul.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

int x = new Integer(etv.getText().toString());

int y = new Integer(etv2.getText().toString());

int mul = x \* y; //Perform Maths operation

result.setText("The ouput is" + mul);

}

});

}

}

=============================================================================================

xml file---

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

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

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:orientation="vertical" >

<TextView

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center"

android:text="Arithmetic Operations" />

<EditText

android:id="@+id/editText1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="number" >

<requestFocus />

</EditText>

<EditText

android:id="@+id/editText2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="number" />

<Button

android:id="@+id/buttonsum"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Sum" />

<Button

android:id="@+id/buttonsub"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Subtraction" />

<Button

android:id="@+id/buttondiv"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Division" />

<Button

android:id="@+id/buttonmul"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="multiplication" />

<TextView

android:id="@+id/textView1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Large Text"

android:textAppearance="?android:attr/textAppearanceLarge" />

</LinearLayout>