MainActivity.java

**package** com.example.jevitha.a14\_layouts;

**import** android.graphics.Color;

**import** android.graphics.Typeface;

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

**import** android.os.Bundle;

**import** android.view.Gravity;

**import** android.view.View;

**import** android.webkit.WebView;

**import** android.widget.AbsListView;

**import** android.widget.FrameLayout;

**import** android.widget.ImageView;

**import** android.widget.RelativeLayout;

**import** android.widget.TextView;

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

@Override

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

**super**.onCreate(savedInstanceState);

setContentView(R.layout.***linear\_layout***);

}

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

setContentView(R.layout.***linear\_layout***);

}

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

setContentView(R.layout.***relative\_layout***);

}

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

setContentView(R.layout.***grid\_layout***);

}

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

setContentView(R.layout.***table\_layout***);

}

**public void** setTableLayout1(View v){

setContentView(R.layout.***table\_layout1***);

}

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

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

}

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

setContentView(R.layout.***frame\_layout***);

}

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

setContentView(R.layout.***webview\_layout***);

WebView myWebView = (WebView) findViewById(R.id.***webview1***);

*//load URL*

*//myWebView.loadUrl("http://www.amrita.edu");*

*// load custom html content*

String customHtml = **"<html><body><h1>Hello, WebView</h1></body></html>"**;

myWebView.loadData(customHtml, **"text/html"**, **"UTF-8"**);

}

**public void** setFrameLayout1(View v){

setContentView(R.layout.***frame\_layout1***);

}

// dynamically creating frame layout

**public void** setFrameLayout2(View v){

ImageView imageView = **new** ImageView(**this**);

imageView.setImageResource(R.drawable.***android***);

imageView.setScaleType(ImageView.ScaleType.***CENTER***);

imageView.setLayoutParams(**new** FrameLayout.LayoutParams(FrameLayout.LayoutParams.***MATCH\_PARENT***,

RelativeLayout.LayoutParams.***MATCH\_PARENT***));

TextView textView1 = **new** TextView(**this**);

textView1.setText(**"Android P"**);

textView1.setTextSize(30);

textView1.setGravity(Gravity.***CENTER***);

textView1.setTextColor(Color.***GREEN***);

textView1.setTypeface(**null**, Typeface.***BOLD***);

textView1.setLayoutParams(**new** FrameLayout.LayoutParams(FrameLayout.LayoutParams.***MATCH\_PARENT***,

RelativeLayout.LayoutParams.***MATCH\_PARENT***));

FrameLayout.LayoutParams lp1 = **new** FrameLayout.LayoutParams(FrameLayout.LayoutParams.***MATCH\_PARENT***, FrameLayout.LayoutParams.***WRAP\_CONTENT***);

lp1.setMargins(0,20,0,0);

textView1.setLayoutParams(lp1);

*//Initializing frame layout*

FrameLayout framelayout2 = **new** FrameLayout(**this**);

framelayout2.setLayoutParams(**new** AbsListView.LayoutParams(FrameLayout.LayoutParams.***MATCH\_PARENT***,

FrameLayout.LayoutParams.***MATCH\_PARENT***));

*//Adding views to FrameLayout*

framelayout2.addView(imageView);

framelayout2.addView(textView1);

setContentView(framelayout2);

}

}

linear\_layout.xml

*<?***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"**

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

**android:layout\_marginTop="20dp"**

**android:layout\_marginLeft="20dp"**

**android:orientation="vertical"**

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

*<!-- https://developer.android.com/guide/topics/ui/layout/linear -->*

<**TextView**

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

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

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

**android:textAllCaps="true"**

**android:gravity="center"**

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

**android:text="Linear Layout"**

/>

<**TextView**

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

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

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

**android:text="Frame Layout"**

**android:onClick="setFrameLayout"**

/>

<**TextView**

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

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

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

**android:text="Relative Layout"**

**android:onClick="setRelativeLayout"**

**android:layout\_marginTop="20dp"** />

<**TextView**

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

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

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

**android:text="Grid Layout"**

**android:onClick="setGridLayout"**

**android:layout\_marginTop="20dp"** />

<**TextView**

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

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

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

**android:text="Table Layout"**

**android:onClick="setTableLayout"**

**android:layout\_marginTop="20dp"**

/>

<**TextView**

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

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

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

**android:text="Web View"**

**android:onClick="setWebView"**

**android:layout\_marginTop="20dp"**

/>

<**TextView**

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

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

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

**android:text="ConstraintLayout"**

**android:onClick="setConstraintLayout"**

**android:layout\_marginTop="20dp"**

/>

</**LinearLayout**>

relative\_layout.xml

*<?***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="40dp"**

**android:paddingRight="16dp"**>

<**TextView**

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

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

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

**android:gravity="center"**

**android:text="Relative Layout"**

**android:textAllCaps="true"**

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

<**TextView**

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

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

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

**android:layout\_alignParentLeft="true"**

**android:layout\_marginTop="20dp"**

**android:onClick="setLinearLayout"**

**android:text="Linear Layout"** />

<**TextView**

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

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

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

**android:layout\_alignParentLeft="true"**

**android:layout\_below="@id/linear"**

**android:layout\_marginTop="20dp"**

**android:onClick="setFrameLayout"**

**android:text="Frame Layout"** />

<**TextView**

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

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

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

**android:layout\_below="@id/frame"**

**android:layout\_marginTop="20dp"**

**android:onClick="setGridLayout"**

**android:text="Grid Layout"** />

<**TextView**

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

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

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

**android:layout\_below="@id/grid"**

**android:layout\_marginTop="20dp"**

**android:onClick="setTableLayout"**

**android:text="Table Layout"** />

<**TextView**

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

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

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

**android:layout\_alignTop="@id/table"**

**android:layout\_toRightOf="@id/table"**

**android:onClick="setWebView"**

**android:text="Web View"** />

</**RelativeLayout**>

frame\_layout.xml

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

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

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

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

>

<**TextView android:text="LeftTop"**

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

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

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

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

**android:text="RightTop"**

**android:layout\_gravity="top|right"** />

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

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

**android:text="CentreTop - Frame Layout"**

**android:layout\_gravity="top|center\_horizontal"** />

<**TextView android:text="Left"**

**android:layout\_gravity="left|center\_vertical"**

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

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

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

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

**android:text="Right"**

**android:layout\_gravity="right|center\_vertical"** />

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

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

**android:text="Center - Linear Layout"**

**android:onClick="setLinearLayout"**

**android:layout\_gravity="center"** />

<**TextView android:text="Another Frame "**

**android:layout\_gravity="left|bottom"**

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

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

**android:onClick="setFrameLayout2"**/>

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

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

**android:text="RightBottom"**

**android:layout\_gravity="right|bottom"** />

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

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

**android:text="CenterBottom - Another Frame"**

**android:onClick="setFrameLayout1"**

**android:layout\_gravity="center|bottom"** />

</**FrameLayout**>

frame\_layout1.xml

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

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

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

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

<**ImageView**

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

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

**android:scaleType="fitXY"**

**android:src="@drawable/android"** />

<**TextView**

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

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

**android:gravity="center"**

**android:text="Android P"**

**android:textSize="30sp"**

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

**android:textStyle="bold"** />

<**TextView**

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

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

**android:gravity="bottom"**

**android:text="Linear Layout"**

**android:textSize="30sp"**

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

**android:textStyle="bold"**

**android:onClick="setLinearLayout"**/>

</**FrameLayout**>

grid\_layout.xml

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

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

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

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

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

**android:columnCount="3"**

**android:rowCount="2"**

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

<**Button**

**android:id="@+id/button3"**

**android:layout\_column="0"**

**android:layout\_gravity="fill\_horizontal"**

**android:layout\_row="0"**

**android:text="Linear Layout"**

**android:onClick="setLinearLayout"**

/>

<**Button**

**android:id="@+id/button1"**

**android:layout\_column="1"**

**android:layout\_gravity="fill\_horizontal"**

**android:layout\_row="0"**

**android:text="Relative Layout"**

**android:onClick="setRelativeLayout"**/>

<**Button**

**android:id="@+id/button2"**

**android:layout\_column="2"**

**android:layout\_gravity="fill\_vertical"**

**android:layout\_row="0"**

**android:layout\_rowSpan="2"**

**android:text="Table \n Layout"**

**android:onClick="setTableLayout"**/>

<**Button**

**android:id="@+id/button4"**

**android:layout\_column="0"**

**android:layout\_columnSpan="2"**

**android:layout\_gravity="fill\_horizontal"**

**android:layout\_row="1"**

**android:text="Web View"**

**android:onClick="setWebView"**/>

</**GridLayout**>

table\_layout.xml

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

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

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

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

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

**android:shrinkColumns="\*"**

**android:stretchColumns="\*"**

**android:background="#ffffff"**

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

<**TableRow**

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

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

<**TextView**

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

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

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

**android:textAllCaps="true"**

**android:gravity="center"**

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

**android:text="Table Layout"**

**android:layout\_span="3"**

/>

</**TableRow**>

*<!-- Row 1 with single column -->*

<**TableRow**

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

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

**android:gravity="center\_horizontal"**>

<**TextView**

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

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

**android:textSize="18dp"**

**android:text="Linear Layout"**

**android:layout\_span="3"**

**android:padding="18dip"**

**android:background="#b0b0b0"**

**android:textColor="#000"**

**android:onClick="setLinearLayout"**/>

</**TableRow**>

*<!-- Row 2 with 3 columns -->*

<**TableRow**

**android:id="@+id/tableRow1"**

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

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

<**TextView**

**android:id="@+id/TextView01" android:text="Relative Layout"**

**android:layout\_weight="1" android:background="#dcdcdc"**

**android:textColor="#000000"**

**android:padding="20dip" android:gravity="center"**

**android:onClick="setRelativeLayout"**/>

<**TextView**

**android:id="@+id/TextView02" android:text="Grid Layout"**

**android:layout\_weight="1" android:background="#d3d3d3"**

**android:textColor="#000000"**

**android:padding="20dip" android:gravity="center"**

**android:onClick="setGridLayout"**/>

<**TextView**

**android:id="@+id/TextView03" android:text="Row 2 column 3"**

**android:layout\_weight="1" android:background="#cac9c9"**

**android:textColor="#000000"**

**android:padding="20dip" android:gravity="center"**/>

</**TableRow**>

*<!-- Row 3 with 2 columns -->*

<**TableRow**

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

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

**android:gravity="center\_horizontal"**>

<**TextView**

**android:id="@+id/TextView04" android:text="Web View"**

**android:layout\_weight="1" android:background="#b0b0b0"**

**android:textColor="#000000"**

**android:padding="20dip" android:gravity="center"**

**android:onClick="setWebView"**/>

<**TextView**

**android:id="@+id/TextView05" android:text="Row 3 column 2"**

**android:layout\_weight="1" android:background="#a09f9f"**

**android:textColor="#000000"**

**android:padding="20dip" android:gravity="center"**/>

</**TableRow**>

<**TableRow**

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

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

**android:gravity="center\_horizontal"**>

<**Button**

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

**android:text="Another Table Layout"**

**android:onClick="setTableLayout1"**

/>

</**TableRow**>

</**TableLayout**>

table\_layout1.xml

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

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

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

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

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

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

**android:stretchColumns="1"**

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

<**TableRow**

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

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

<**TextView**

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

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

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

**android:textAllCaps="true"**

**android:gravity="center"**

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

**android:text="Table Layout"**

**android:layout\_span="3"**

/>

</**TableRow**>

<**TableRow**

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

**android:layout\_height="fill\_parent"**>

<**TextView**

**android:text="Time"**

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

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

**android:layout\_column="0"** />

<**TextClock**

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

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

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

**android:layout\_column="1"** />

</**TableRow**>

<**TableRow**>

<**TextView**

**android:text="First Name"**

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

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

**android:layout\_column="0"** />

<**EditText**

**android:width="200px"**

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

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

</**TableRow**>

<**TableRow**>

<**TextView**

**android:text="Last Name"**

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

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

**android:layout\_column="0"** />

<**EditText**

**android:width="100px"**

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

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

</**TableRow**>

<**TableRow**

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

**android:layout\_height="fill\_parent"**>

<**RatingBar**

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

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

**android:layout\_span="2"**

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

**android:layout\_column="0"** />

</**TableRow**>

<**TableRow**

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

**android:layout\_height="fill\_parent"**/>

<**TableRow**

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

**android:layout\_height="fill\_parent"**>

<**Button**

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

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

**android:text="Submit"**

**android:layout\_span="2"**

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

**android:layout\_column="0"** />

</**TableRow**>

</**android.widget.TableLayout**>

activity\_main.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"**

**android:layout\_marginTop="30dp"**

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

<**TextView**

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

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

**android:layout\_height="15dp"**

**android:layout\_marginTop="20dp"**

**android:onClick="setLinearLayout"**

**android:text="Linear Layout"**

**app:layout\_constraintBottom\_toTopOf="@id/relative"**

**app:layout\_constraintLeft\_toLeftOf="parent"**

**app:layout\_constraintRight\_toRightOf="parent"**

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

<**TextView**

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

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

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

**android:onClick="setRelativeLayout"**

**android:text="Relative Layout"**

**android:layout\_marginTop="20dp"**

**app:layout\_constraintTop\_toBottomOf="@+id/linear"**

**app:layout\_constraintBottom\_toTopOf="@+id/grid"**

**app:layout\_constraintLeft\_toLeftOf="parent"**

**app:layout\_constraintRight\_toRightOf="parent"**

/>

<**TextView**

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

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

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

**android:layout\_marginBottom="124dp"**

**android:layout\_marginTop="20dp"**

**android:onClick="setGridLayout"**

**android:text="Grid Layout"**

**app:layout\_constraintBottom\_toTopOf="@id/table"**

**app:layout\_constraintLeft\_toLeftOf="parent"**

**app:layout\_constraintRight\_toRightOf="parent"**

**app:layout\_constraintTop\_toBottomOf="@+id/relative"** />

<**TextView**

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

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

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

**android:onClick="setTableLayout"**

**android:text="Table Layout"**

**android:layout\_marginTop="20dp"**

**app:layout\_constraintTop\_toBottomOf="@+id/grid"**

**app:layout\_constraintBottom\_toTopOf="@id/web"**

**app:layout\_constraintRight\_toRightOf="parent"**

**app:layout\_constraintLeft\_toLeftOf="parent"**/>

<**TextView**

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

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

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

**android:layout\_marginBottom="290dp"**

**android:text="Web View"**

**app:layout\_constraintBottom\_toBottomOf="parent"**

**app:layout\_constraintLeft\_toLeftOf="parent"**

**app:layout\_constraintRight\_toRightOf="parent"**

/>

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

webview\_layout.xml

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

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

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

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

**android:id="@+id/webview1"**>

</**WebView**>

AndroidManifest.xml

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

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

**package="com.example.jevitha.a14\_layouts"**>

<**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**>

</**application**>

<**uses-permission android:name="android.permission.INTERNET"** />

</**manifest**>