

Name: Prashant Bhosale  
Roll No: 804

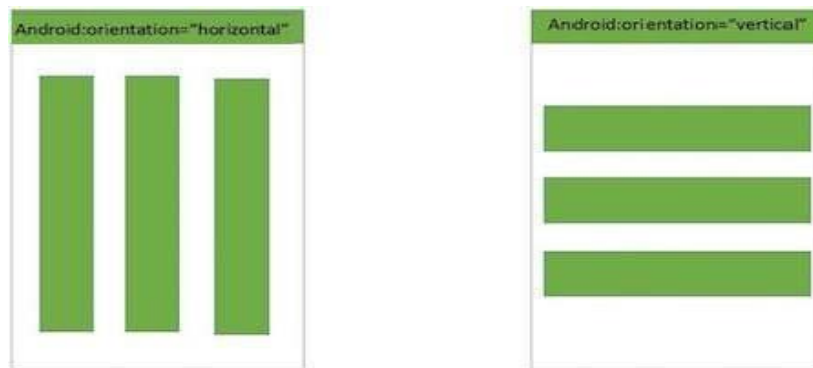
### **EXPERIMENT 3 – WORKING WITH LAYOUTS**

**AIM :** To study Linear Layout and Relative Layout in Android

#### **THEORY:**

##### **Linear Layout**

Android LinearLayout is a view group that aligns all children in either vertically or horizontally.



##### **Linear Layout Attributes**

**android:id** - This is the ID which uniquely identifies the layout.

**android:baselineAligned** - This must be a boolean value, either "true" or "false" and prevents the layout from aligning its children's baselines.

**android:orientation** - This specifies the direction of arrangement and you will use "horizontal" for a row, "vertical" for a column. The default is horizontal.

**android:gravity** - This specifies how an object should position its content, on both the X and Y axes. Possible values are top, bottom, left, right, center, center\_vertical, center\_horizontal etc.

##### **Relative Layout**

Android RelativeLayout enables you to specify how child views are positioned relative to each other. The position of each view can be specified as relative to sibling elements or relative to the parent.



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### **Relative Layout Attributes**

**android:layout\_above** - Positions the bottom edge of this view above the given anchor view ID.

**android:layout\_alignBottom** - Makes the bottom edge of this view match the bottom edge of the given anchor view ID.

**android:layout\_alignLeft** - Makes the left edge of this view match the left edge of the given anchor view ID.

**android:layout\_alignParentBottom** - If true, makes the bottom edge of this view match the bottom edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignParentEnd** - If true, makes the end edge of this view match the end edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignParentLeft** - If true, makes the left edge of this view match the left edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignParentRight** - If true, makes the right edge of this view match the right edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignParentStart** - If true, makes the start edge of this view match the start edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignParentTop** - If true, makes the top edge of this view match the top edge of the parent. Must be a boolean value, either "true" or "false".

**android:layout\_alignRight** - Makes the right edge of this view match the right edge of the given anchor view ID.

**android:layout\_alignStart** - Makes the start edge of this view match the start edge of the given anchor view ID.

**android:layout\_alignTop** - Makes the top edge of this view match the top edge of the given anchor view ID.

**android:layout\_below** - Positions the top edge of this view below the given anchor view ID.

**android:layout\_centerHorizontal** - If true, centers this child horizontally within its parent. Must be a boolean value, either "true" or "false".

**android:layout\_centerInParent** - If true, centers this child horizontally and vertically within its parent. Must be a boolean value, either "true" or "false".

**android:layout\_centerVertical** - If true, centers this child vertically within its parent. Must be a boolean value, either "true" or "false".

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**android:layout\_toEndOf** - Positions the start edge of this view to the end of the given anchor view ID.

**android:layout\_toLeftOf** - Positions the right edge of this view to the left of the given anchor view ID.

**android:layout\_toRightOf** - Positions the left edge of this view to the right of the given anchor view ID.

**android:layout\_toStartOf** - Positions the end edge of this view to the start of the given anchor view ID.

## ASSIGNMENT

Design Registration form using Relative Layout and display all the values in the same activity.

## CODE:

### activiy.main.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"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Registration Form"
        android:textSize="30sp"
        android:textStyle="bold"
        android:id="@+id/Text1"
        android:layout_marginTop="3dp"
        android:layout_centerHorizontal="true"/>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name :- "
        android:textSize="25sp"
        android:textStyle="bold"
        android:id="@+id/TextV1"
        android:layout_below="@+id/Text1"
        android:layout_marginTop="5dp"/>
    <EditText
```

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```
        android:layout_width="250dp"
        android:layout_height="wrap_content"
        android:textSize="25sp"
        android:textStyle="bold"
        android:id="@+id/Edittxt1"
        android:layout_below="@id/Text1"
        android:layout_toRightOf="@+id/TextV1"
        android:layout_marginTop="5dp"/>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Email :- "
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/TextV2"
    android:layout_below="@+id/TextV1"
    android:layout_marginTop="5dp"/>
<EditText
    android:layout_width="250dp"
    android:layout_height="wrap_content"
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/Edittxt2"
    android:layout_below="@id/TextV1"
    android:layout_toRightOf="@+id/TextV2"
    android:layout_marginTop="5dp"/>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Phone :- "
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/TextV3"
    android:layout_below="@+id/TextV2"
    android:layout_marginTop="5dp"/>
<EditText
    android:layout_width="250dp"
    android:layout_height="wrap_content"
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/Edittxt3"
    android:layout_below="@id/TextV2"
    android:layout_toRightOf="@+id/TextV3"
    android:layout_marginTop="5dp"/>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Gender : "
    android:textSize="25sp"
```

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```
        android:textStyle="bold"
        android:id="@+id/TextV8"
        android:layout_below="@+id/TextV3"
        android:layout_marginTop="30dp"/>
<RadioGroup
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/TextV8"
    android:id="@+id/RG1">
<RadioButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Male"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_below="@+id/TextV3"
    android:layout_toRightOf="@+id/RG1"
    android:id="@+id/rb1"/>
<RadioButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Female"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_below="@+id/TextV3"
    android:layout_toRightOf="@+id/RG1"
    android:id="@+id/rb2"/>
</RadioGroup>
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_centerHorizontal="true"
    android:id="@+id/b1"
    android:layout_below="@id/RG1"
    android:layout_marginTop="5dp"/>
<TextView
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/TextV4"
    android:layout_below="@id/b1"
    android:layout_marginTop="10dp"
    android:layout_centerHorizontal="true"/>
<TextView
    android:layout_width="300dp"
```

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```
        android:layout_height="wrap_content"
        android:textSize="25sp"
        android:textStyle="bold"
        android:id="@+id/TextV5"
        android:layout_below="@id/TextV4"
        android:layout_marginTop="10dp"
        android:layout_centerHorizontal="true"/>
<TextView
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/TextV6"
    android:layout_below="@id/TextV5"
    android:layout_marginTop="10dp"
    android:layout_centerHorizontal="true"/>
<TextView
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:textSize="25sp"
    android:textStyle="bold"
    android:id="@+id/TextV7"
    android:layout_below="@id/TextV6"
    android:layout_marginTop="10dp"
    android:layout_centerHorizontal="true"/>
</RelativeLayout>
```

## MainActivity.java

```
package com.example.mca1634.layout;

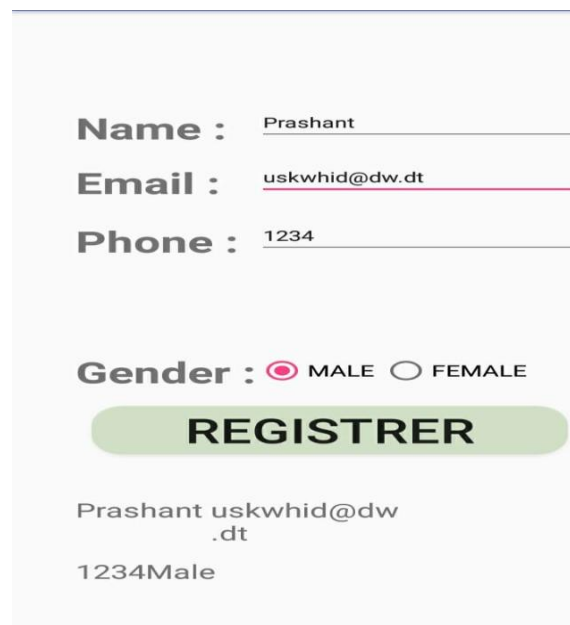
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    Button b1;
    EditText editText1,editText2,editText3;
    RadioButton r1,r2;
    TextView text1,text2,text3,text4;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=(Button) findViewById(R.id.b1);
        editText1 =(EditText) findViewById(R.id.Edittxt1);
        editText2 =(EditText) findViewById(R.id.Edittxt2);
```

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```
editText3 =(EditText) findViewById(R.id. Edittxt3);  
r1=(RadioButton) findViewById(R.id. rb1);  
r2=(RadioButton) findViewById(R.id. rb2);  
text1=(TextView) findViewById(R.id. TextV4);  
text2=(TextView) findViewById(R.id. TextV5);  
text3=(TextView) findViewById(R.id. TextV6);  
text4=(TextView) findViewById(R.id. TextV7);  
b1.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        String name= editText1.getText().toString();  
        text1.setText(name);  
        String email= editText2.getText().toString();  
        text2.setText(email);  
        String phone= editText3.getText().toString();  
        text3.setText(phone);  
        if(r1.isChecked())  
            text4.setText("Male");  
        else  
            text4.setText("Female");  
    }  
});  
}  
}
```

### OUTPUT:



**Name :** Prashant

**Email :** uskwhid@dw.dt

**Phone :** 1234

**Gender :** ☒ MALE ☐ FEMALE

**REGISTRER**

Prashant uskwhid@dw  
.dt

1234Male

**CONCLUSION:** Successfully Understand Linear Layout & Relative Layout in Android.