DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
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Experiment - 3.2

Student Name: Harshit Raj
UID: 20BCS9266
Branch: BE-CSE
Section/Group: 20BCS_DM-608/A
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Subject: MAD Lab
Subject Code: 20CSP-356

1. AIM: Implement building blocks for Android Application using different layouts (such as linear, relative and absolute).

2. CODE:

MainActivity.java

```
package com.example.exp3_29;
import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    @Override
 protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Button linearLayoutButton = findViewById(R.id.linear_layout_button);
Button relativeLayoutButton =
                findViewById(R.id.relative_layout_button);
                Button absoluteLayoutButton =
                findViewById(R.id.absolute_layout_button);

 linearLayoutButton.setOnClickListener(v    ->    {
Intent    intent    =    new    Intent(MainActivity.this,
activity_linear_layout.class);  startActivity(intent);
        });

 relativeLayoutButton.setOnClickListener(v    ->    {
Intent    intent    =    new    Intent(MainActivity.this,
activity_relative_layout.class);
```

```
        startActivity(intent);
    });
    absoluteLayoutButton.setOnClickListener(v -> {
Intent intent = new Intent(MainActivity.this,
activity_absolute_layout.class);
        startActivity(intent);
    });
 }
}
```

activity_main.xml

```
< LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:layout_width="match_parent"
android:layout_height="match_parent"
   android:orientation="vertical">

 <Button
        android:id="@+id/linear_layout_button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center_horizontal"
android:layout_marginTop="40dp"      android:text="linear_layout"
    android:textSize="18sp"
    />

 <Button
        android:id="@+id/relative_layout_button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center_horizontal"
android:text="relative_layout"
    android:textSize="18sp"
    />

 <Button
        android:id="@+id/absolute_layout_button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center_horizontal"
android:text="absolute_layout"
    android:textSize="18sp"
    />

 <TextView
android:id="@+id/textView"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="10dp"
assandroid:layout_marginTop="40dp"
    />
 <TextView
android:id="@+id/textView2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="10dp"
android:layout_marginTop="10dp"
android:text="20BCS5156"
    android:textSize="16sp"
    />
```

</LinearLayout>

activity_linear_layout.java

```
package com.example.exp3_29;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class activity_linear_layout extends AppCompatActivity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_linear_layout);
 }
}
```

activity_linear_layout.xml

```
< LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
       android:layout_width="match_parent"
android:layout_height="match_parent" android:orientation="vertical">


       <TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
        android:text="element_11"
```

```
        android:textSize="24sp" />

      <EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="element_22"
        android:textSize="24sp" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="element_33"
        android:textSize="24sp" />

< /LinearLayout>
```

activity_relative_layout.java

```
package com.example.exp3_29;

import
androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class activity_relative_layout extends AppCompatActivity {

 @Override
 protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_relative_layout);
 }
}
```

activity_relative_layout.xml

```
< RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
   android:layout_height="match_parent">

 <TextView
android:id="@+id/text_view_1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_marginStart="16dp"
android:layout_marginTop="16dp"
android:text="element_1"
android:textSize="24sp" />

<EditText              android:id="@+id/edit_text_1"
android:layout_width="match_parent"  android:layout_height="wrap_content"
android:layout_below="@id/text_view_1"
android:layout_alignStart="@id/text_view_1"     android:layout_marginTop="16dp"
android:hint="element_2" android:textSize="24sp" />

 <Button               android:id="@+id/button_1"
android:layout_width="wrap_content"  android:layout_height="wrap_content"
android:layout_below="@id/edit_text_1"
android:layout_alignStart="@id/edit_text_1"
android:layout_marginTop="16dp"       android:text="element_3"
android:textSize="24sp" />

< /RelativeLayout>
```

activity_absolute_layout.java

```
package com.example.exp3_29;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class activity_absolute_layout extends AppCompatActivity {

 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
setContentView(R.layout.activity_absolute_layout);
}
}
```

activity_absolute_layout.xml

```
< ?xml version="1.0" encoding="utf-8"?>
< AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
   android:layout_height="match_parent">
```

```
<TextView android:id="@+id/text_view_1"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_x="100dp"
android:layout_y="100dp" android:text="element_111"
android:textSize="24sp" />

<EditText android:id="@+id/edit_text_1"
android:layout_width="150dp"
android:layout_height="wrap_content" android:layout_x="50dp"
android:layout_y="200dp" android:hint="element_222"
android:textSize="24sp" />

<Button android:id="@+id/button_1"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_x="200dp"
android:layout_y="300dp" android:text="element_333"
android:textSize="24sp" />
< /AbsoluteLayout>
```