Experiment - 3.1

1. **AIM:**

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

# CODE:

## MainActivity.java

package com.example.myapplication9; 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, LinearLayoutActivity.class);

startActivity(intent);

});

relativeLayoutButton.setOnClickListener(v -> {

Intent intent = new Intent(MainActivity.this, RelativeLayoutActivity.class);

startActivity(intent);

});

absoluteLayoutButton.setOnClickListener(v -> {

Intent intent = new Intent(MainActivity.this, AbsoluteLayoutActivity.class); startActivity(intent);

});

}

}

## activity\_main.xml

<LinearLayout

xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:orientation="vertical" android:layout\_width="match\_parent" android:layout\_height="match\_parent">

<Button android:text="@string/linear\_layout" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/linear\_layout\_button" android:textSize="18sp" android:layout\_marginTop="40dp" android:layout\_gravity="center\_horizontal "/>

<Button android:text="@string/relative\_layout" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/relative\_layout\_button" android:textSize="18sp" android:layout\_gravity="center\_horizontal"/>

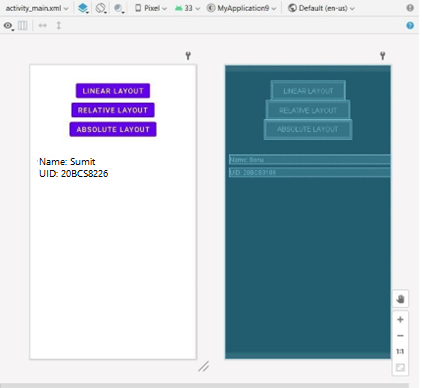
<Button android:text="@string/absolute\_layout" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/absolute\_layout\_button" android:textSize="18sp" android:layout\_gravity="center\_horizontal"/>

<TextView android:id="@+id/textView" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="16sp" android:layout\_marginTop="40dp" android:layout\_marginStart="10dp" android:text="@string/Simran" />

<TextView android:id="@+id/textView2" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="16sp" android:layout\_marginTop="10dp"

android:layout\_marginStart="10dp" android:text="@string/20BCS3400" />

</LinearLayout>



## LinearLayoutActivity.java

package com.example.myapplication9; import android.os.Bundle; import androidx.appcompat.app.AppCompatActivity; public class LinearLayoutActivity 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"](http://schemas.android.com/apk/res/android) android:orientation="vertical" android:layout\_width="match\_parent" android:layout\_height="match\_parent">

<TextView

android:text="@string/element\_11" android:textSize="24sp" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"

/>

<EditText

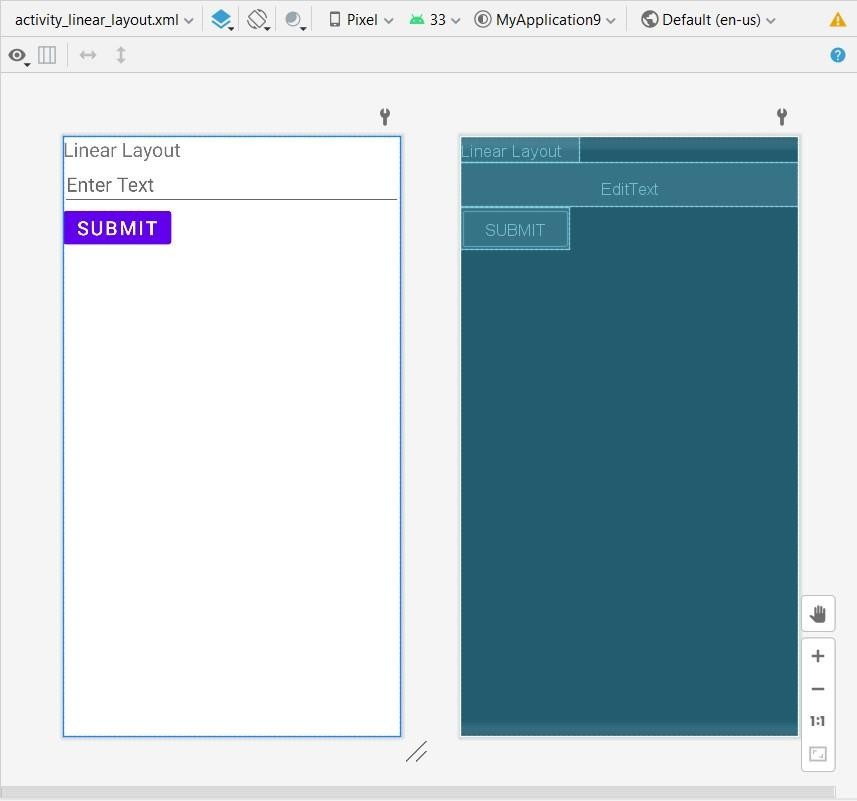
android:hint="@string/element\_22" android:textSize="24sp" android:layout\_width="match\_parent" android:layout\_height="wrap\_content"

/>

<Button

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:textSize="24sp" android:text="@string/element\_33" />

</LinearLayout>



## RelativeLayoutActivity.java

package com.example.myapplication9; import android.os.Bundle; import androidx.appcompat.app.AppCompatActivity; public class RelativeLayoutActivity 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"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent">

<TextView

android:text="@string/element\_1" android:textSize="24sp" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/text\_view\_1" android:layout\_alignParentTop="true" android:layout\_alignParentStart="true " android:layout\_marginStart="16dp" android:layout\_marginTop="16dp"/>

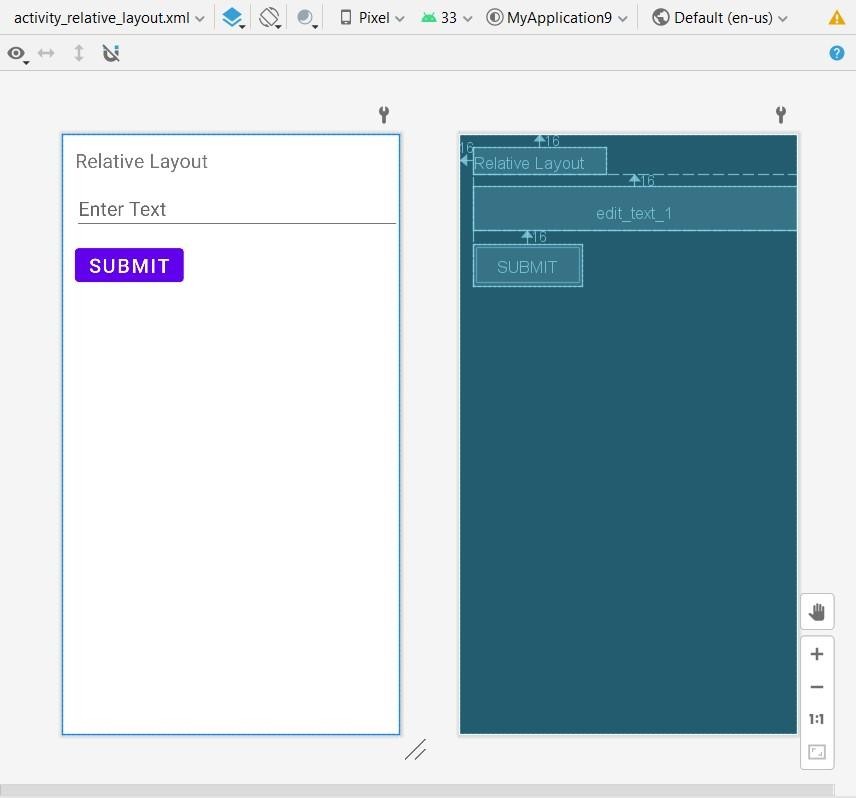
<EditText android:hint="@string/element\_2" android:textSize="24sp" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/edit\_text\_1" android:layout\_below="@id/text\_view\_1" android:layout\_alignStart="@id/text\_view

\_1" android:layout\_marginTop="16dp"/>

<Button android:text="@string/element\_3" android:textSize="24sp" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/button\_1" android:layout\_below="@id/edit\_text\_1" android:layout\_alignStart="@id/edit\_text

\_1" android:layout\_marginTop="16dp"/>

</RelativeLayout>



## AbsoluteLayoutActivity.java

package com.example.myapplication9; import android.os.Bundle; import androidx.appcompat.app.AppCompatActivity; public class AbsoluteLayoutActivity 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"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent"

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

<TextView

android:text="@string/element\_111" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/text\_view\_1" android:textSize="24sp" android:layout\_x="100dp" android:layout\_y="100dp"/>



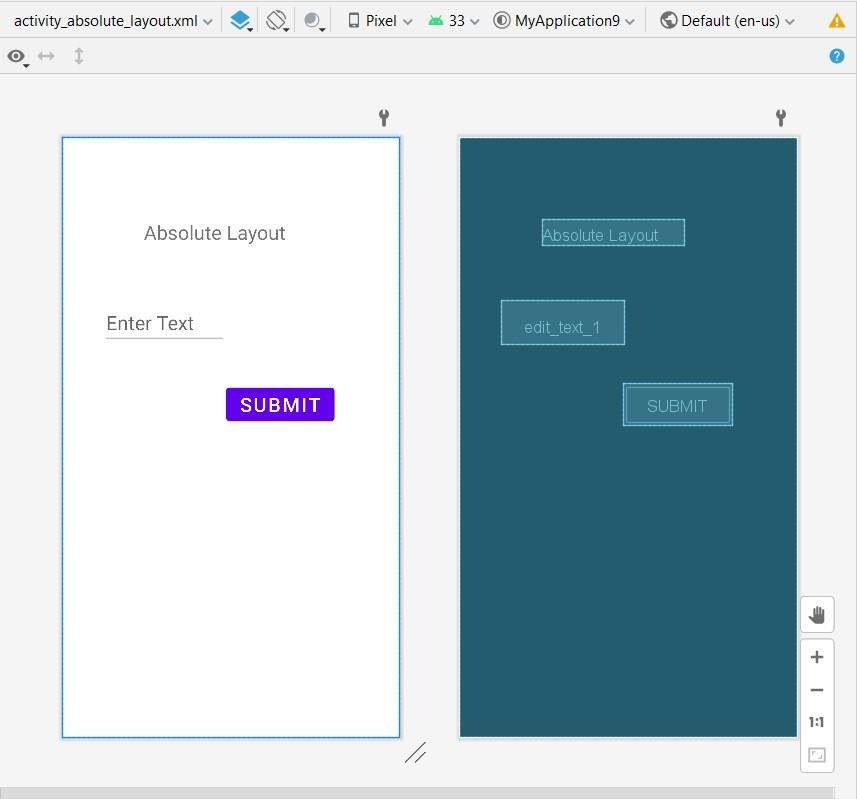
<EditText

android:hint="@string/element\_222" android:textSize="24sp" android:layout\_width="150dp" android:layout\_height="wrap\_content" android:id="@+id/edit\_text\_1" android:layout\_x="50dp" android:layout\_y="200dp"/>

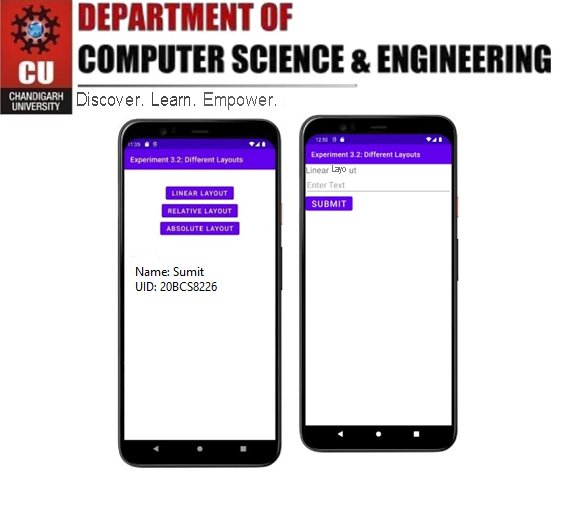
<Button

android:text="@string/element\_333" android:textSize="24sp" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/button\_1" android:layout\_x="200dp" android:layout\_y="300dp"/>

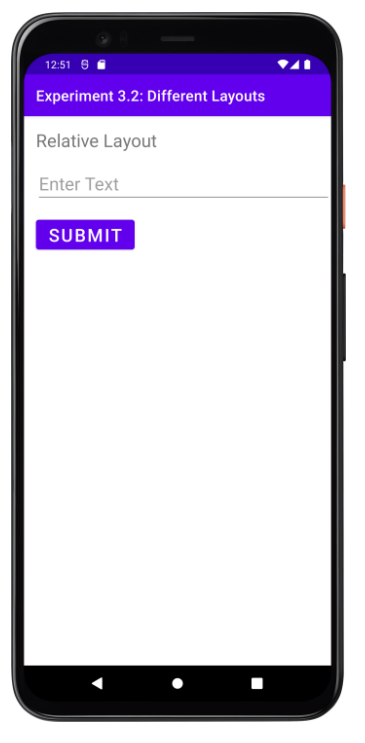
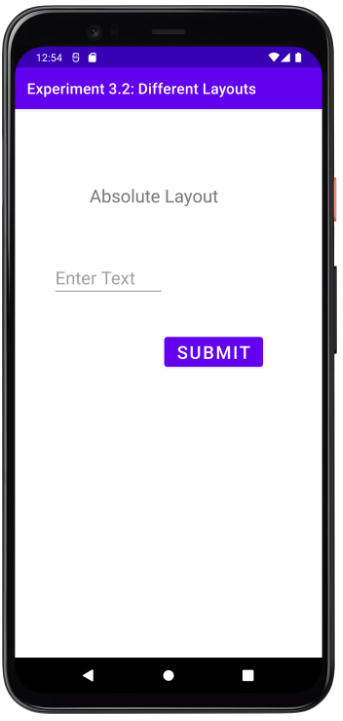
</AbsoluteLayout>



1. **OUTPUT:**



**Output for Linear Layout**

**Output for Relative Layout Output for Absolute Layout**