CO-2

Experiment-2

Design a simple Calculator using GridLayout and Cascaded LinearLayout

CODE

Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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_gravity="center_vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/num1"
        android:layout_width="358dp"
        android:layout_height="21dp"
        android:layout_gravity="center"
        android:layout_marginBottom="10dp"
        android:layout_weight="7"
        android:ems="10"
        android:textColor="@color/white"
        android:hint="Enter First number" />

    <EditText
        android:id="@+id/num2"
        android:layout_width="358dp"
        android:layout_height="28dp"
        android:layout_gravity="center"
        android:layout_marginBottom="10dp"
        android:layout_weight="7"
        android:textColor="@color/white"
        android:ems="10"
        android:hint="Enter second number"
        android:minHeight="48dp" />

    <TextView
        android:id="@+id/result"
        android:layout_width="358dp"
        android:layout_height="21dp"
        android:layout_gravity="center"
        android:textColor="@color/white"
```

```
        android:layout_marginBottom="10dp"
        android:layout_weight="7"
        android:height="20dp"
        android:ems="10"
        android:hint="result"
        android:minHeight="32dp" />

    <androidx.gridlayout.widget.GridLayout
        android:layout_width="match_parent"
        android:layout_height="200dp"
        android:layout_weight="1">

        <Button
            android:id="@+id/add"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:text="+" />

        <Button
            android:id="@+id/sub"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:text="-" />

        <Button
            android:id="@+id/divide"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:text="/" />

        <Button
            android:id="@+id/mult"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:text="*" />
    </androidx.gridlayout.widget.GridLayout>

</LinearLayout>
```

Activity_Main.java

```
package com.example.calculatorusinggridlayout;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText num1,num2;
    TextView result;
    Button add,sub, multi,divide;
    private Double n1,n2,r;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        num1=(EditText) findViewById(R.id.num1);
        num2=(EditText) findViewById(R.id.num2);
        result=(TextView) findViewById(R.id.result);
        add=(Button) findViewById(R.id.add);
        sub=(Button) findViewById(R.id.sub);
        multi =(Button) findViewById(R.id.mult);
        divide=(Button) findViewById(R.id.divide);

        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                n1=Double.parseDouble(num1.getText().toString());
                n2=Double.parseDouble(num2.getText().toString());
                r=n1+n2;
                result.setText(r.toString());
                num1.setText("");
                num2.setText("");

            }
        });

        divide.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                n1=Double.parseDouble(num1.getText().toString());
                n2=Double.parseDouble(num2.getText().toString());
                r=n1/n2;
                result.setText(r.toString());
                num1.setText("");
                num2.setText("");
            }
        });

        sub.setOnClickListener(new View.OnClickListener() {
            @Override
```

```
        public void onClick(View view) {
            n1=Double.parseDouble(num1.getText().toString());
            n2=Double.parseDouble(num2.getText().toString());
            r=n1-n2;
            result.setText(r.toString());
            num1.setText("");
            num2.setText("");
        }
    });

    multi.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            n1=Double.parseDouble(num1.getText().toString());
            n2=Double.parseDouble(num2.getText().toString());
            r=n1*n2;
            result.setText(r.toString());
            num1.setText("");
            num2.setText("");
        }
    });
  }
}
```

OUTPUT