2.Develop an application to perform arithmetic operations like addition, subtraction, multiplication and division.

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:layout_width="fill_parent"
   android:layout_height="fill_parent"
   android:weightSum="1">
   <LinearLayout
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:id="@+id/linearLayout1"
      android:layout_marginLeft="10pt"
      android:layout_marginRight="10pt"
      android:layout_marginTop="3pt">
      <EditText
         android:layout_weight="1"
         android:layout_height="wrap_content"
         android:layout_marginRight="5pt"
         android:id="@+id/etNum1"
         android:layout_width="match_parent"
         android:inputType="numberDecimal">
      </EditText>
      <EditText
         android:layout_height="wrap_content"
         android:layout_weight="1"
         android:layout_marginLeft="5pt"
         android:id="@+id/etNum2"
         android:layout_width="match_parent"
         android:inputType="numberDecimal">
      </EditText>
   </LinearLayout>
   <LinearLayout
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:id="@+id/linearLayout2"
      android:layout_marginTop="3pt"
      android:layout_marginLeft="5pt"
      android:layout_marginRight="5pt">
      <Button
         android:layout_height="wrap_content"
         android:layout_width="match_parent"
         android:layout_weight="1"
         android:text="+"
         android:textSize="8pt"
         android:id="@+id/btnAdd">
      </Button>
      <Button
         android:layout_height="wrap_content"
         android:layout_width="match_parent"
         android:layout_weight="1"
         android:text="-"
         android:textSize="8pt"
         android:id="@+id/btnSub">
      </Button>
      <Button
         android:layout_height="wrap_content"
         android:layout_width="match_parent"
         android:layout_weight="1"
         android:text="*"
         android:textSize="8pt"
```

```
            android:id="@+id/btnMult">
        </Button>
        <Button
            android:layout_height="wrap_content"
            android:layout_width="match_parent"
            android:layout_weight="1"
            android:text="/"
            android:textSize="8pt"
            android:id="@+id/btnDiv">
        </Button>
        <Button
            android:layout_height="wrap_content"
            android:layout_width="match_parent"
            android:layout_weight="1"
            android:text="%"
            android:textSize="8pt"
            android:id="@+id/btnMod">
        </Button>
    </LinearLayout>
    <TextView
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:layout_marginLeft="5pt"
        android:layout_marginRight="5pt"
        android:textSize="12pt"
        android:layout_marginTop="3pt"
        android:id="@+id/tvResult"
        android:gravity="center_horizontal"
        android:layout_weight="0.07">
    </TextView>
</LinearLayout>
```

```
package com.example.calc;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener{

    EditText etNum1;
    EditText etNum2;
    Button btnAdd;
    Button btnSub;
    Button btnMult;
    Button btnDiv;
    Button btnMod;

    TextView tvResult;

    String oper = "";

    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);

    // find the elements
    etNum1 = (EditText) findViewById(R.id.etNum1);
    etNum2 = (EditText) findViewById(R.id.etNum2);

    btnAdd = (Button) findViewById(R.id.btnAdd);
    btnSub = (Button) findViewById(R.id.btnSub);
    btnMult = (Button) findViewById(R.id.btnMult);
    btnDiv = (Button) findViewById(R.id.btnDiv);
    btnMod = (Button) findViewById(R.id.btnMod);

    tvResult = (TextView) findViewById(R.id.tvResult);

    // set a listener
    btnAdd.setOnClickListener((View.OnClickListener) this);
    btnSub.setOnClickListener((View.OnClickListener) this);
    btnMult.setOnClickListener((View.OnClickListener) this);
    btnDiv.setOnClickListener((View.OnClickListener) this);
    btnMod.setOnClickListener((View.OnClickListener) this);

}

@Override
public void onClick(View v) {
    // TODO Auto-generated method stub
    float num1 = 0;
    float num2 = 0;
    float result = 0;

    // check if the fields are empty
    if (TextUtils.isEmpty(etNum1.getText().toString())
            || TextUtils.isEmpty(etNum2.getText().toString())) {
        return;
    }

    // read EditText and fill variables with numbers
    num1 = Float.parseFloat(etNum1.getText().toString());
    num2 = Float.parseFloat(etNum2.getText().toString());

    // defines the button that has been clicked and performs the corresponding operation
    // write operation into oper, we will use it later for output
    switch (v.getId()) {
        case R.id.btnAdd:
            oper = "+";
            result = num1 + num2;
            break;
        case R.id.btnSub:
            oper = "-";
            result = num1 - num2;
            break;
        case R.id.btnMult:
            oper = "*";
            result = num1 * num2;
            break;
        case R.id.btnDiv:
            oper = "/";
            result = num1 / num2;
            break;
        case R.id.btnMod:
```

```
            oper = "%";
            result = num1 % num2;
            break;
        default:
            break;
    }

    // form the output line
    tvResult.setText(num1 + " " + oper + " " + num2 + " = " + result);
  }


}
```

OUTPUT