

Department of **Bachelor of Computer Applications**

Android Operating System Lab File - CA 05

Subject Code: 19BCA4C03L Class: IInd Year IInd Semester

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Question 01:

Program for simple calculator.

Code:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity main"
    android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    android:gravity="top"
    android:textAlignment="center"
    android:background="@android:color/holo blue bright"
    android:weightSum="1"
    tools:ignore="RtlCompat">
        android:text="enter two numbers"
        android:layout width="match parent"
        android:id="@+id/textView"
        android:layout height="30dp"
        android:gravity="center horizontal"
        android:textColorLink="?android:attr/editTextColor"
        tools:textStyle="bold|italic"
        android:textStyle="bold|italic"
        android:fontFamily="serif"
        android: visibility="visible"
        android:textSize="24sp"
        android:layout weight="0.07" />
        android:layout_width="match_parent"
android:layout_height="wrap_content"
        android:inputType="number"
        android:ems="10"
        android:id="@+id/editOp1"
        android:textSize="18sp"
        android:gravity="center horizontal"
        android:layout_marginBottom="5dp"
        android:visibility="visible" />
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:inputType="number"
        android:ems="10"
        android:id="@+id/editOp2"
        android:textSize="18sp"
        android:gravity="center_horizontal"
        android:elevation="1dp" />
        android:orientation="horizontal"
        android:layout_width="match_parent"
        android:layout height="wrap content">
            android:id="@+id/btnadd"
            android:layout width="60dp"
```

```
android:layout_height="wrap content"
    android:layout weight="0.03"
    android:text="+" />
    android:id="@+id/btnsub"
    android:layout_width="60dp"
    android:layout_height="wrap_content"
android:layout_weight="0.03"
    android:text="-" />
    android:id="@+id/btnmul"
    \verb"android:layout_width="60dp""
    android:layout_height="wrap_content"
    android:layout weight="0.03"
    android:text="*" />
    android:id="@+id/btndiv"
    android:layout_width="60dp"
    android:layout_height="wrap_content"
    android:layout_weight="0.03"
    android:text="/" />
    android:id="@+id/btnclr"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout_weight="0.03"
    android:text="clear" />
android:id="@+id/textView1"
android:layout width="match parent"
android:layout height="50dp"
android:layout marginTop="10dp"
android:fontFamily="serif"
android:gravity="center horizontal"
android:text="result"
android:textColorLink="?android:attr/editTextColor"
android:textSize="30sp"
android:textStyle="bold|italic"
android:visibility="visible"
tools:textStyle="bold|italic" />
android:layout width="match parent"
android:layout height="wrap content"
android:inputType="number"
android:ems="10"
android:id="@+id/result"
android:textSize="18sp"
android:text="0.00"
android:gravity="center horizontal" />
```

MainActivity.java

```
package com.example.myapplication09;
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;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    private EditText opr1;
    private EditText opr2;
    private Button btnadd;
    private Button btnsub;
    private Button btnmul;
    private Button btndiv;
    private Button btnclr;
    private TextView txtresult;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        opr1 = (EditText) findViewById(R.id.editOp1);
        opr2 = (EditText) findViewById(R.id.editOp2);
        btnadd = (Button) findViewById(R.id.btnadd);
        btnsub = (Button) findViewById(R.id.btnsub);
btnmul = (Button) findViewById(R.id.btnmul);
btndiv = (Button) findViewById(R.id.btndiv);
btnclr = (Button) findViewById(R.id.btnclr);
        txtresult= (TextView) findViewById(R.id.result);
// Addition
        btnadd.setOnClickListener(new View.OnClickListener() {
             @Override
             public void onClick(View v) {
                  if((opr1.getText().length()>0) &&
(opr2.getText().length()>0))
                      double oper1 =
Double.parseDouble(opr1.getText().toString());
                      double oper2 =
Double.parseDouble(opr2.getText().toString());
                      double result = oper1 + oper2;
                      txtresult.setText(Double.toString(result));
                 else
                      Toast toast= Toast.makeText(MainActivity.this,"Enter
The Required Numbers", Toast. LENGTH LONG);
                      toast.show();
        });
//Subtraction
        btnsub.setOnClickListener(new View.OnClickListener() {
             @Override
             public void onClick(View v) {
                 if((opr1.getText().length()>0) &&
(opr2.getText().length()>0))
```

```
double oper1 =
Double.parseDouble(opr1.getText().toString());
                    double oper2 =
Double.parseDouble(opr2.getText().toString());
                    double result = oper1 - oper2;
                    txtresult.setText(Double.toString(result));
                else
                    Toast toast= Toast.makeText(MainActivity.this,"Enter
The Required Numbers", Toast. LENGTH_LONG);
                    toast.show();
        });
// Multiplication
        btnmul.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if((opr1.getText().length()>0) &&
(opr2.getText().length()>0))
                    double oper1 =
Double.parseDouble(opr1.getText().toString());
                    double oper2 =
Double.parseDouble(opr2.getText().toString());
                    double result = oper1 * oper2;
                    txtresult.setText(Double.toString(result));
                else
                    Toast toast= Toast.makeText(MainActivity.this,"Enter
The Required Numbers", Toast. LENGTH LONG);
                    toast.show();
        });
// Division
        btndiv.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if((opr1.getText().length()>0) &&
(opr2.getText().length()>0))
                    double oper1 =
Double.parseDouble(opr1.getText().toString());
                    double oper2 =
Double.parseDouble(opr2.getText().toString());
                    double result = oper1 / oper2;
                    txtresult.setText(Double.toString(result));
                else
                    Toast toast= Toast.makeText(MainActivity.this,"Enter
The Required Numbers", Toast. LENGTH LONG);
                    toast.show();
        });
```

Output:









