LAB 02:

MainActivity.java

```
package com.example.labtwo;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    boolean isEmpty = true;
    String numOld = "";
    String op = "+";
    EditText edt:
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        edt = findViewById(R.id.editText);
    }
    public void numberEvent(View view) {
        if(isEmpty)
            edt.setText("");
        isEmpty = false;
        String number = edt.getText().toString();
        switch (view.getId()) {
            case R.id.butDot:number+=".";break;
            case R.id.but0:number+="0";break;
            case R.id.but1:number+="1";break;
            case R.id.but2:number+="2";break;
            case R.id.but3:number+="3";break;
            case R.id.but4:number+="4";break;
            case R.id.but5:number+="5";break;
            case R.id.but6:number+="6";break;
            case R.id.but7:number+="7";break;
            case R.id.but8:number+="8";break;
            case R.id.but9:number+="9";break;
            case R.id.butPlusMinus:number="-"+number;break;
        edt.setText(number);
    public void operatorEvent(View view) {
        isEmpty = true;
        numOld = edt.getText().toString();//Stores the number to old
variable
```

```
//Let's get the number that is clicked using switch case
       switch (view.getId()) {
           case R.id.butDivide:op = "/"; break;
           case R.id.butMultiply:op = "*"; break;
           case R.id.butPlus:op = "+"; break;
           case R.id.butMinus:op = "-"; break;
       }
   }
   public void equalEvent(View view) {
       String numNew = edt.getText().toString();
       double result = 0.0;
       switch (op) {
           case "+":
result=Double.parseDouble(numOld)+Double.parseDouble(numNew);
               break;
           case "-":
               result=Double.parseDouble(numOld) -
Double.parseDouble(numNew);
              break;
           case "*":
result=Double.parseDouble(numOld)*Double.parseDouble(numNew);
               break;
           case "/":
result=Double.parseDouble(numOld)/Double.parseDouble(numNew);
               break;
       edt.setText(result+"");
   }
   public void clearEvent(View view) {
       edt.setText("0");
       isEmpty = true;
   }
   public void moduloEvent(View view) {
       double num = Double.parseDouble(edt.getText().toString())/100;
       edt.setText(num+"");
       isEmpty=true;
   }
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/editText"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout weight="1"
        android:background="@color/gray"
        android:ems="10"
        android:gravity="right|center"
        android:inputType="textPersonName"
        android:text="0"
        android:textSize="50sp"
        android:layout marginBottom="1pt"
        android:textStyle="bold" />
    <TableLayout
        android:layout width="match parent"
        android:layout height="wrap content">
        <TableRow
            android:layout marginBottom="1pt"
            android:layout width="match parent"
            android:layout height="match parent"
            android:orientation="vertical">
            <Button
                android:id="@+id/butAC"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:textColor="@color/white"
                android:text="C"
                android:onClick="clearEvent"></Button>
            <Button
                android:id="@+id/butPlusMinus"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout_marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="+/-"
```

```
<Button
                android:id="@+id/butDivide"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="/"
                android:onClick="operatorEvent"></Button>
            <Button
                android:id="@+id/butMultiply"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:text="*"
                android:onClick="operatorEvent"
android:background="@color/design default color primary dark"
                android:textColor="#FFF"></Button>
        </TableRow>
        <TableRow
            android:layout marginBottom="1pt"
            android:layout width="match parent"
            android:layout height="match parent">
            <Button
                android:id="@+id/but7"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="7"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but8"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="8"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but9"
```

android:onClick="numberEvent"></Button>

```
android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="9"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/butModulo"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout_marginRight="1pt"
                android:layout weight="1"
android:background="@color/design default color primary dark"
                android:text="%"
                android:onClick="moduloEvent"></Button>
        </TableRow>
        <TableRow
            android:layout marginBottom="1pt"
            android:layout width="match parent"
            android:layout height="match parent">
            <Button
                android:id="@+id/but4"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout_weight="1"
                android:background="@color/teal 200"
                android:text="4"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but5"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="5"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but6"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
```

```
android:background="@color/teal 200"
                android:text="6"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/butPlus"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout_marginRight="1pt"
                android:layout weight="1"
android:background="@color/design default_color_primary_dark"
                android:text="+"
                android:onClick="operatorEvent"></Button>
        </TableRow>
        <TableRow
            android:layout marginBottom="1pt"
            android:layout width="match parent"
            android:layout height="match parent">
            <Button
                android:id="@+id/but1"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="1"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but2"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="2"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/but3"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="3"
                android:onClick="numberEvent"
                ></Button>
```

```
<Button
                android:id="@+id/butMinus"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
android:background="@color/design default_color_primary_dark"
                android:text="-"
                android:onClick="operatorEvent"></Button>
        </TableRow>
    </TableLayout>
    <LinearLayout
        android:layout width="match parent"
        android:layout height="wrap content"
        android:orientation="horizontal">
        <TableRow
            android:layout marginBottom="1pt"
            android:layout width="match parent"
            android:layout height="match parent">
            <Button
                android:id="@+id/but0"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="0"
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/butDot"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="."
                android:onClick="numberEvent"
                ></Button>
            <Button
                android:id="@+id/butEqual"
                android:layout width="30pt"
                android:layout height="30pt"
                android:layout marginRight="1pt"
                android:layout weight="1"
                android:background="@color/teal 200"
                android:text="="
```