

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
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//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;
}
}

***** End of Java 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_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=""
        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="+/-"
```

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

<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"

```

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        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"

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        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="="

```

```
                android:textColor="#FFF"
                android:onClick="equalEvent"></Button>
            </TableRow>

        </LinearLayout>

</LinearLayout>
```

*****End of xml Code*****