**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;  
 }  
}

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 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="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">  
  
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 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="+/-"  
 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>  
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 <TableRow  
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 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
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 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: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>  
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 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
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 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>  
  
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 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>  
  
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 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>  
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 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
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 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>  
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 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
  
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 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
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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="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\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***