**Nadib Rana**

**213002247**

**D3**

**ActivityMain.java**

package com.example.claculattor;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

Button button0, button1, button2, button3, button4, button5, button6,

button7, button8, button9, buttonadd, buttonSub, buttonDiv,

buttonMul, buttonPoint, buttonReset, buttonEqual;

EditText eT;

float ValueOne, ValueTwo, result;

boolean Addition, Subtract, Multiplication, Division;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Referencing

button0 = findViewById(R.id.btnZero);

button1 = findViewById(R.id.btnOne);

button2 = findViewById(R.id.btnTwo);

button3 = findViewById(R.id.btnThree);

button4 = findViewById(R.id.btnFour);

button5 = findViewById(R.id.btnFive);

button6 = findViewById(R.id.btnSix);

button7 = findViewById(R.id.btnSeven);

button8 = findViewById(R.id.btnEight);

button9 = findViewById(R.id.btnNine);

buttonPoint = findViewById(R.id.btnPoint);

buttonadd = findViewById(R.id.btnadd);

buttonSub = findViewById(R.id.btnSub);

buttonMul = findViewById(R.id.btnMul);

buttonDiv = findViewById(R.id.btnDiv);

buttonReset = findViewById(R.id.btnReset);

buttonEqual = findViewById(R.id.btnEqual);

eT = findViewById(R.id.eT);

eT = findViewById(R.id.eT);

eT.setText("0");

// Event Listeners

button1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "1");

}

});

button2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "2");

}

});

button3.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "3");

}

});

button4.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "4");

}

});

button5.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "5");

}

});

button6.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "6");

}

});

button7.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "7");

}

});

button8.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "8");

}

});

button9.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "9");

}

});

button0.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + "0");

}

});

buttonReset.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText("");

}

});

buttonPoint.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

eT.setText(eT.getText() + ".");

}

});

buttonadd.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ValueOne = Float.parseFloat(eT.getText().toString());

Addition = true;

eT.setText(null);

}

});

buttonSub.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ValueOne = Float.parseFloat(eT.getText().toString());

Subtract = true;

eT.setText(null);

}

});

buttonMul.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ValueOne = Float.parseFloat(eT.getText().toString());

Multiplication = true;

eT.setText(null);

}

});

buttonDiv.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ValueOne = Float.parseFloat(eT.getText().toString());

Division = true;

eT.setText(null);

}

});

buttonEqual.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ValueTwo = Float.parseFloat(eT.getText().toString());

if (Addition) {

result = ValueOne + ValueTwo;

eT.setText(String.valueOf(result));

Addition = false;

}

if (Subtract) {

result = ValueOne - ValueTwo;

eT.setText(String.valueOf(result));

Subtract = false;

}

if (Multiplication) {

result = ValueOne \* ValueTwo;

eT.setText(String.valueOf(result));

Multiplication = false;

}

if (Division) {

result = ValueOne / ValueTwo;

eT.setText(String.valueOf(result));

Division = false;

}

}

});

}

}

**ActivityMain.XML**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp">

<EditText

android:id="@+id/eT"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="none"

android:focusable="false"

android:textSize="24sp"

android:padding="16dp"

android:background="@android:color/transparent"

android:hint="0"

android:gravity="end"/>

<GridLayout

android:layout\_width="match\_parent"

android:layout\_height="0dp"

android:layout\_weight="1"

android:columnCount="4"

android:rowCount="5"

android:padding="8dp">

<Button

android:id="@+id/btnZero"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="0"

android:textSize="18sp"/>

<Button

android:id="@+id/btnOne"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="1"

android:textSize="18sp"/>

<Button

android:id="@+id/btnTwo"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="2"

android:textSize="18sp"/>

<Button

android:id="@+id/btnThree"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="3"

android:textSize="18sp"/>

<Button

android:id="@+id/btnFour"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="4"

android:textSize="18sp"/>

<Button

android:id="@+id/btnFive"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="5"

android:textSize="18sp"/>

<Button

android:id="@+id/btnSix"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="6"

android:textSize="18sp"/>

<Button

android:id="@+id/btnSeven"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="7"

android:textSize="18sp"/>

<Button

android:id="@+id/btnEight"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="8"

android:textSize="18sp"/>

<Button

android:id="@+id/btnNine"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="9"

android:textSize="18sp"/>

<Button

android:id="@+id/btnPoint"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="."

android:textSize="18sp"/>

<Button

android:id="@+id/btnadd"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="+"

android:textSize="18sp"/>

<Button

android:id="@+id/btnSub"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="-"

android:textSize="18sp"/>

<Button

android:id="@+id/btnMul"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="\*"

android:textSize="18sp"/>

<Button

android:id="@+id/btnDiv"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="/"

android:textSize="18sp"/>

<Button

android:id="@+id/btnReset"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

android:text="C"

android:textSize="18sp"/>

<Button

android:id="@+id/btnEqual"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:layout\_columnWeight="1"

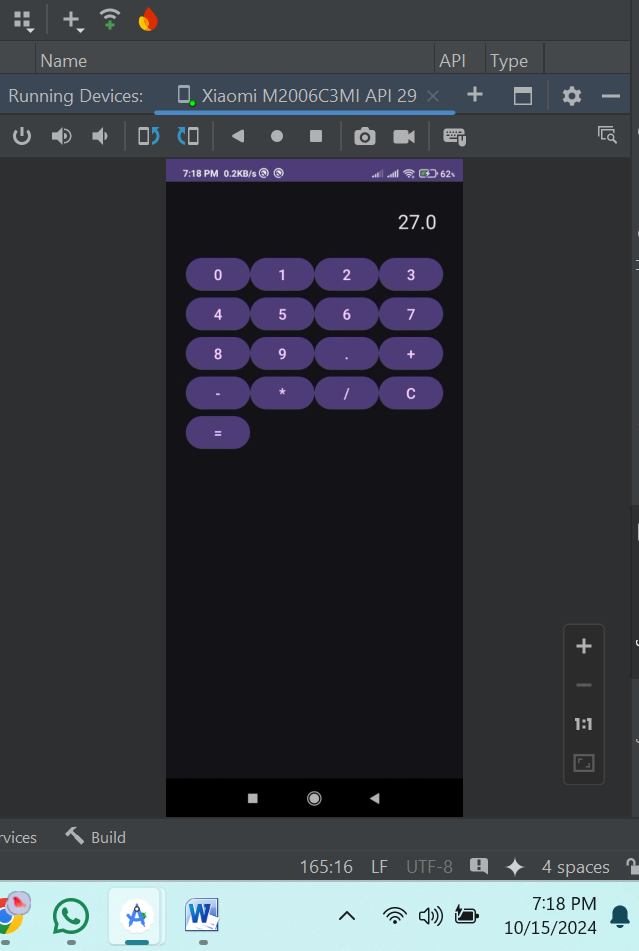
android:text="="

android:textSize="18sp"/>

</GridLayout>

</LinearLayout>

**Output:**

****