

NAME: AKSHATA

ROLL NO:20211CSE0208

SECTION:5CSE-4

CALCULATOR APPLICATION

1.XML FILE

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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:background="@color/material_dynamic_primary90"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Calculator"
        android:textColor="#9C27B0"
        android:textColorHighlight="@color/black"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.464"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.132" />

    <EditText
        android:id="@+id/abox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.268" />

    <EditText
        android:id="@+id/bbox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.399" />

    <TextView
        android:id="@+id
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="TextView"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent" />
```

<Button

```
    android:id="@+id/addbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="+"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.547" />
```

<TextView

```
    android:id="@+id/resbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Result"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.751" />
```

<Button

```
    android:id="@+id/subbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="-"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.653"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.547" />
```

<Button

```
    android:id="@+id/divbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="/"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.656"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.658" />
```

<Button

```
    android:id="@+id/mulbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="*"
    app:layout_constraintBottom_toBottomOf="parent"
```

```

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.221"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.658" />

        <Button
            android:id="@+id/cbutton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Clear"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.528"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.846" />
    </androidx.constraintlayout.widget.ConstraintLayout>

```

2.JAVA FILE

```

package com.example.ani;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText aval, bval;
    Button add, sub, mul, div, clear;
    TextView res;
    Double a, b;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        aval = findViewById(R.id.abox);
        bval = findViewById(R.id.bbox);
        add = findViewById(R.id.addbtn);
        sub = findViewById(R.id.subbtn);
        mul = findViewById(R.id.mulbtn);
        div = findViewById(R.id.divbtn);
        res = findViewById(R.id.resbtn);
        clear=findViewById(R.id.cbutton);
        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                a = Double.parseDouble(aval.getText().toString());
                b = Double.parseDouble(bval.getText().toString());
                res.setText("Result: "+(a+b));
            }
        });
    }
}

```

```

        sub.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                a = Double.parseDouble(aval.getText().toString());
                b = Double.parseDouble(bval.getText().toString());
                res.setText("Result: "+(a-b));
            }
        });
        mul.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                a = Double.parseDouble(aval.getText().toString());
                b = Double.parseDouble(bval.getText().toString());
                res.setText("Result: "+(a*b));
            }
        });
        div.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                a = Double.parseDouble(aval.getText().toString());
                b = Double.parseDouble(bval.getText().toString());
                if(b!=0)
                    res.setText("Result: "+(a/b));
                else
                    res.setText("Division not possible");
            }
        });
        clear.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                aval.setText(" ");
                bval.setText(" ");
            }
        });
    }
}

```

3.OUTPUT

