1...

```xml
<?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"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

.xml

```java
package com.example.manoj;


import androidx.appcompat.app.AppCompatActivity;


import android.os.Bundle;


public class MainActivity extends AppCompatActivity {


    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

    }
}
```

.java

2…….


```xml
<?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:id="@+id/textview2"
```

```xml
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <TextView
        android:id="@+id/textView2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="88dp"

        android:textAlignment="center"
    android:textColor="@color/black" android:textSize="20sp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/num"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="188dp"

        android:layout_marginEnd="88dp"

        android:ems="10"

        android:hint="Enter the number"

        android:inputType="textPersonName"

        android:textAlignment="center"

        android:textColor="@color/black"

        android:textSize="20sp"
```

```xml
        android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/result" android:layout_width="235dp"
android:layout_height="47dp" android:layout_marginTop="44dp"
android:layout_marginEnd="88dp"

        android:ems="10"

        android:hint="Square of the number"
android:inputType="textPersonName"
android:textAlignment="center" android:textColor="@color/
black" android:textSize="20sp"

        android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/num" />

    <Button

        android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="52dp"
android:layout_marginEnd="152dp" android:onClick="calculate"

        android:text="Calculate"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/result" />

</androidx.constraintlayout.widget.ConstraintLayout>


.xml
```

```java
package com.example.manoj;


import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity
{ EditText et1, et2;

    @Override

    protected void onCreate(Bundle savedInstanceState)
{ super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

    }

    public void calculate(View view)
{ et1=findViewById(R.id.num);

        int i =
Integer.parseInt(String.valueOf(et1.getText()));

        et2=findViewById(R.id.result);

        et2.setText("Square = "+(i*i));

    }

}


.java
```

3………..


```xml
<?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"
tools:context=".MainActivity">

    <TextView

        android:id="@+id/textView2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="88dp"

        android:textAlignment="center"
android:textColor="@color/black" android:textSize="20sp"
android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <EditText

        android:id="@+id/input"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="188dp"

        android:layout_marginEnd="23dp"

        android:ems="10"

        android:hint="Enter the text"
```

```xml
        android:inputType="textPersonName"

        android:textAlignment="center"

        android:textColor="@color/black"

        android:textSize="20sp"

        android:textStyle="bold"

    app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.572"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <Button

        android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="48dp" android:onClick="display"

        android:text="Display"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/input" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

.xml

```java
package com.example.manoj;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;
```

```java
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText et1;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main); }

    public void display(View view) {

        et1=findViewById(R.id.input);
Toast.makeText(this,et1.getText(),Toast.LENGTH_LONG).show();

    } }
```

.java

4.

```xml
<?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"
tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="88dp"

        android:textAlignment="center"
android:textColor="@color/black" android:textSize="20sp"
android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/input"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="156dp"

        android:ems="10"

        android:hint="Enter the text"
android:inputType="textPersonName"
android:textAlignment="center" android:textColor="@color/
```

```xml
black" android:textSize="20sp" android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <Button

        android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="216dp" android:text="Display"
android:onClick="Display"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <EditText

        android:id="@+id/show"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="316dp"

        android:ems="10"

        android:hint="Text entered"
android:inputType="textPersonName"
android:textAlignment="center" android:textSize="20sp"
android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>


.xml
```

```java
package com.example.shubham;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity
{ EditText et1, et2;

    @Override

    protected void onCreate(Bundle savedInstanceState)
{ super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

    }

    public void Display(View view) { et1 =
findViewById(R.id.input); et2 = findViewById(R.id.show);
et2.setText(et1.getText());

    } }
```

.java

5……….

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

<RelativeLayout 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="wrap_content"
android:layout_height="wrap_content"
tools:context=".MainActivity">

    <TextView

        android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginTop="33dp"

        android:textAlignment="center"
android:textColor="@color/black" android:textSize="20sp"
android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

    <EditText

        android:id="@+id/num1"
android:layout_width="wrap_content"
android:layout_height="55dp"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_alignParentEnd="true"
android:layout_centerHorizontal="true"
android:layout_marginStart="20dp"
```

```xml
        android:layout_marginTop="105dp"
        android:layout_marginEnd="23dp" android:ems="10"

            android:hint="Number 1"

            android:inputType="numberDecimal"

            android:textSize="20sp"

            android:textStyle="bold" />

        <EditText

            android:id="@+id/num2"
        android:layout_width="wrap_content"
        android:layout_height="55dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="28dp"
        android:layout_marginTop="161dp"
        android:layout_marginEnd="15dp" android:ems="10"

            android:hint="Number 2"

            android:inputType="numberDecimal"

            android:textSize="20sp"

            android:textStyle="bold" />

        <TextView

            android:id="@+id/result"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginStart="28dp"
        android:layout_marginTop="225dp" android:hint="Result"
        android:textColor="@color/black" android:textSize="20sp"
        android:textStyle="bold" />

        <Button
```

```xml
        android:id="@+id/sum"

        android:layout_width="336dp"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginStart="38dp"
android:layout_marginTop="272dp" android:onClick="Calculate"
android:text="ADDITION" android:backgroundTint="#808080"
app:cornerRadius="@android:dimen/app_icon_size" />

    <Button

        android:id="@+id/difference"
android:layout_width="336dp"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginStart="38dp"
android:layout_marginTop="321dp"
android:backgroundTint="#808080" android:onClick="Calculate"
android:text="SUBTRACTION" app:cornerRadius="@android:dimen/
app_icon_size" />

    <Button

        android:id="@+id/product"
android:layout_width="336dp"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginStart="40dp"
android:layout_marginTop="370dp"
android:backgroundTint="#808080" android:onClick="Calculate"
android:text="MULTIPLICATION"
app:cornerRadius="@android:dimen/app_icon_size" />

    <Button
```

```xml
        android:id="@+id/quotient"
android:layout_width="336dp"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginStart="38dp"
android:layout_marginTop="417dp"
android:layout_marginBottom="7dp"
android:backgroundTint="#808080" android:onClick="Calculate"
android:text="DIVISION" app:cornerRadius="@android:dimen/
app_icon_size" />

</RelativeLayout>
```

.xml

```java
package com.example.shubham;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity
{ EditText etnum1, etnum2;

    TextView tvresult;

    @Override

    protected void onCreate(Bundle savedInstanceState)
{ super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
```

```java
        etnum1 = findViewById(R.id.num1); etnum2 =
findViewById(R.id.num2); tvresult =
findViewById(R.id.result);

    }

    public void Calculate(View view) {

        float num1=0, num2=0, result=0;
num1=Float.parseFloat(etnum1.getText().toString());
num2=Float.parseFloat(etnum2.getText().toString());

        switch (view.getId())

        {

            case R.id.sum:

                result = num1 + num2; break;

            case R.id.difference: result = num1 - num2;
break;

            case R.id.product:

                result = num1 * num2; break;

            case R.id.quotient: result = num1 / num2;

        }

        tvresult.setText(""+result);

    }
}


.java
```

6………..

```xml
<?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"

    tools:context=".MainActivity">


    <TextView

        android:id="@+id/textView"

        android:layout_width="288dp"

        android:layout_height="39dp"

        android:text="HEIGHT CONVERTER"

        android:textSize="30sp"

        android:textStyle="bold"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintLeft_toLeftOf="parent"

        app:layout_constraintRight_toRightOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintVertical_bias="0.094" />


    <EditText

        android:id="@+id/value1"

        android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"

        android:layout_marginEnd="8dp"

        android:layout_marginLeft="8dp"

        android:layout_marginRight="8dp"

        android:layout_marginStart="8dp"

        android:layout_marginTop="76dp"

        android:ems="10"

        android:hint="Enter inches"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.503"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/textView" /
>


    <EditText

        android:id="@+id/value2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginEnd="8dp"

        android:layout_marginLeft="8dp"

        android:layout_marginRight="8dp"

        android:layout_marginStart="8dp"

        android:layout_marginTop="8dp"

        android:ems="10"

        android:hint="Enter cm"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"
```

```xml
        app:layout_constraintTop_toBottomOf="@+id/value1" />


    <Button

        android:id="@+id/convert"

        android:layout_width="339dp"

        android:layout_height="42dp"

        android:layout_marginBottom="8dp"

        android:layout_marginEnd="8dp"

        android:layout_marginLeft="8dp"

        android:layout_marginRight="8dp"

        android:layout_marginStart="8dp"

        android:layout_marginTop="8dp"

        android:text="CONVERT"

        android:textSize="18sp"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.517"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/value2"

        app:layout_constraintVertical_bias="0.126" />
    <Button

        android:id="@+id/reset"

        android:layout_width="339dp"

        android:layout_height="49dp"

        android:layout_marginBottom="8dp"

        android:layout_marginEnd="8dp"

        android:layout_marginLeft="8dp"
```

```xml
            android:layout_marginRight="8dp"

            android:layout_marginStart="8dp"

            android:layout_marginTop="8dp"

            android:text="RESET"

            android:textSize="18sp"

            app:layout_constraintBottom_toBottomOf="parent"

            app:layout_constraintEnd_toEndOf="parent"

            app:layout_constraintHorizontal_bias="0.517"

            app:layout_constraintStart_toStartOf="parent"

            app:layout_constraintTop_toBottomOf="@+id/convert"

            app:layout_constraintVertical_bias="0.012" />


</androidx.constraintlayout.widget.ConstraintLayout>
```

.xml


```java
package com.example.shubham;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;


import androidx.appcompat.app.AppCompatActivity;


public class MainActivity extends AppCompatActivity {
```

```java
    EditText v1,v2;

    Button convert,reset;

    double val1=0,val2=0;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        v1=findViewById(R.id.value1);

        v2=findViewById(R.id.value2);

        convert=findViewById(R.id.convert);

        reset=findViewById(R.id.reset);

        convert.setOnClickListener(new View.OnClickListener()
{

            @Override

            public void onClick(View view) {

                if (v1.getText().length() > 0)

                {

val1=Double.parseDouble(v1.getText().toString());

                    val2=val1*2.54; // Inch to cm

                }

                else if(v2.getText().length() > 0)

                {

val2=Double.parseDouble(v2.getText().toString());

                    val1=val2/2.54;  // cm to Inch

                }

                else
```

```java
Toast.makeText(getApplicationContext(),"please enter a
value",Toast.LENGTH_LONG).show();

                                v1.
setText(Double.toString(val1));

                v2. setText(Double.toString(val2));

            }

        });


        reset.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                v1.setText("");

                v2.setText("");

            }

        });

    }
}


.java
```