

## Program:

### Activity\_main.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="Shivam Trivedi"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.949"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.068" />

    <EditText
        android:id="@+id/editTextNumberDecimal"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Principal Amount"
        android:inputType="numberDecimal"
        android:minHeight="48dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.502"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.241" />

    <EditText
        android:id="@+id/editTextNumberDecimal2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Interest Rate"
        android:inputType="numberDecimal"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumberDecimal"
```

```

        app:layout_constraintVertical_bias="0.079" />

<EditText
    android:id="@+id/editTextNumberDecimal3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="Enter Time in Months"
    android:inputType="numberDecimal"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.502"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextNumberDecimal2"
    app:layout_constraintVertical_bias="0.099" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Calculate EMI"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextNumberDecimal3"
    app:layout_constraintVertical_bias="0.176" />

<TextView
    android:id="@+id/textView"
    android:layout_width="177dp"
    android:layout_height="84dp"
    android:text="EMI = "
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button"
    app:layout_constraintVertical_bias="0.467" />

```

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

### **mainActivity.java**

```

package com.example.myapplication;

import static com.example.myapplication.R.*;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;

```

```

import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

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

        EditText Principal = (EditText)
findViewById(id.editTextNumberDecimal);
        EditText Interest = (EditText)
findViewById(id.editTextNumberDecimal2);
        EditText Tenure = (EditText)
findViewById(id.editTextNumberDecimal3);
        Button answerButton = (Button) findViewById(id.button);
        TextView answer = (TextView) findViewById(id.textView);

        answerButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if (Principal.getText().toString().isEmpty() &&
Interest.getText().toString().isEmpty() &&
Tenure.getText().toString().isEmpty())
                {
                    Toast.makeText(MainActivity.this, "Enter all the
fields", Toast.LENGTH_LONG).show();
                    return;
                }

                float p = Float.parseFloat(Principal.getText().toString());
                float r = Float.parseFloat(Interest.getText().toString());
                r = r /100;
                float n = Float.parseFloat(Tenure.getText().toString());
                float emi = (p * r * (float)Math.pow(1 + r, n)) /
(float)(Math.pow(1 + r, n) - 1);
                answer.setText("EMI = " + emi);
            }
        });
    }
}

```

## Output:

