SOURCE CODE

XML CODE:

<?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="365dp"

android:layout\_height="54dp"

android:text="CAR EMI CALCULATOR"

android:textAlignment="center"

android:textColor="#040404"

android:textSize="34sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.0" />

<EditText

android:id="@+id/carPrice"

android:layout\_width="341dp"

android:layout\_height="47dp"

android:ems="10"

android:hint="Enter the car price"

android:inputType="textPersonName"

android:textAlignment="center"

android:textColor="#070707"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.491"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.146" />

<EditText

android:id="@+id/downPayment"

android:layout\_width="338dp"

android:layout\_height="43dp"

android:ems="10"

android:hint="Enter the down payment amount"

android:inputType="textPersonName"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.49"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.263" />

<EditText

android:id="@+id/loanAmount"

android:layout\_width="345dp"

android:layout\_height="44dp"

android:ems="10"

android:hint="Enter/Calculate the loan amount"

android:inputType="textPersonName"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.484"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.368" />

<Button

android:id="@+id/button"

android:layout\_width="297dp"

android:layout\_height="54dp"

android:text="CALCULATE LOAN AMOUNT"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.481" />

<EditText

android:id="@+id/interestRate"

android:layout\_width="342dp"

android:layout\_height="50dp"

android:ems="10"

android:hint="Enter the interest rate"

android:inputType="textPersonName"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.492"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.619" />

<EditText

android:id="@+id/tenure"

android:layout\_width="336dp"

android:layout\_height="47dp"

android:ems="10"

android:hint="Enter the tenure"

android:inputType="textPersonName"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.736" />

<Button

android:id="@+id/button2"

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\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.838" />

<TextView

android:id="@+id/textView2"

android:layout\_width="342dp"

android:layout\_height="51dp"

android:textAlignment="center"

android:textColor="#070707"

android:textSize="20sp"

android:inputType="numberDecimal"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.521"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.957" />

</androidx.constraintlayout.widget.ConstraintLayout>

JAVA CODE:

package com.example.emicalculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.text.TextUtils;

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 {

EditText price,downpay,intrate,tenure,loan;

TextView emires;

Button loanamt,emiresult;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

price = (EditText)findViewById(R.id.carPrice);

downpay = (EditText)findViewById(R.id.downPayment);

intrate = (EditText)findViewById(R.id.interestRate);

loanamt = (Button)findViewById(R.id.button);

tenure = (EditText)findViewById(R.id.tenure);

loan = (EditText)findViewById(R.id.loanAmount);

emiresult = (Button)findViewById(R.id.button2);

emires = (TextView)findViewById(R.id.textView2);

loanamt.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String onroad = price.getText().toString();

String downp = downpay.getText().toString();

if(onroad.matches("")) {

Toast.makeText(MainActivity.this, "Please enter a valid on-road price of the car",Toast.LENGTH\_SHORT).show();

}

else {

if(downp.matches("")) {

Toast.makeText(MainActivity.this, "Please enter a valid down-payment for the car",Toast.LENGTH\_SHORT).show();

}

else {

double carprice = Double.parseDouble(price.getText().toString());

double downpayment = Double.parseDouble(downpay.getText().toString());

String loanam = String.valueOf(carprice - downpayment);

loan.setText(loanam);

}

}

}

});

emiresult.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String finalloan = loan.getText().toString();

String interest = intrate.getText().toString();

String month = tenure.getText().toString();

if(finalloan.matches("") && interest.matches("") && month.matches("")) {

Toast.makeText(MainActivity.this,"All the fields are required",Toast.LENGTH\_SHORT).show();

}

else {

double principal = Double.parseDouble(loan.getText().toString());

double irate = Double.parseDouble(intrate.getText().toString());

double time = Double.parseDouble(tenure.getText().toString());

double rate = irate/1200;

String finalemi = String.valueOf(((principal \* rate \* Math.pow(1+rate,time))/(Math.pow(1+rate,time)- 1)));

emires.setText(finalemi);

}

}

});

}

}