

EXPERIMENT - 05

CODE:

MainActivity.java

```
package com.example.myapplication;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    Button emiCalcBtn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        final EditText P = (EditText)findViewById(R.id.principal);
        final EditText I = (EditText)findViewById(R.id.interest);
        final EditText Y = (EditText)findViewById(R.id.years);
        final EditText result = (EditText)findViewById(R.id.emi);
        emiCalcBtn = (Button) findViewById(R.id.btn_calculate2);
        emiCalcBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String st1 = P.getText().toString();
                String st2 = I.getText().toString();
                String st3 = Y.getText().toString();
                if (TextUtils.isEmpty(st1)) {
                    P.setError("Enter Principal Amount");
                    P.requestFocus();
                    return;
                }
                if (TextUtils.isEmpty(st2)) {
                    I.setError("Enter Interest Rate");
                    I.requestFocus();
                    return;
                }
                if (TextUtils.isEmpty(st3)) {
                    Y.setError("Enter Years");
                    Y.requestFocus();
                    return;
                }
            }
        });
    }
}
```

```

    }
    float p = Float.parseFloat(st1);
    float i = Float.parseFloat(st2);
    float y = Float.parseFloat(st3);
    float Principal = calPric(p);
    float Rate = callnt(i);
    float Months = calMonth(y);
    float Dvdnt = calDvdnt( Rate, Months);
    float FD = calFinalDvdnt (Principal, Rate, Dvdnt);
    float D = calDivider(Dvdnt);
    float emi = calEmi(FD, D);
    result.setText(String.valueOf(emi));
}
});
}
public float calPric(float p) {
    return (float) (p);
}
public float callnt(float i) {
    return (float) (i/12/100);
}
public float calMonth(float y) {
    return (float) (y * 12);
}
public float calDvdnt(float Rate, float Months) {
    return (float) (Math.pow(1+Rate, Months));
}
public float calFinalDvdnt(float Principal, float Rate, float Dvdnt) {
    return (float) (Principal * Rate * Dvdnt);
}
public float calDivider(float Dvdnt) {
    return (float) (Dvdnt-1);
}
public float calEmi(float FD, Float D) {
    return (float) (FD/D);
}
}
}

```

XML:

```

<androidx.coordinatorlayout.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"

```

```

tools:context="com.example.myapplication.MainActivity"
android:layout_height="match_parent"
android:background="@color/black"
android:backgroundTint="@color/black">
<androidx.core.widget.NestedScrollView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    app:layout_behavior="@string/appbar_scrolling_view_behavior">
<LinearLayout
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="?attr/actionBarSize"
    android:orientation="vertical"
    android:paddingLeft="20dp"
    android:paddingRight="20dp"
    android:paddingTop="10dp">
<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/input_layout_principal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
<EditText
    android:id="@+id/principal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:singleLine="true"
    android:inputType="number"
    android:digits="0123456789."
    android:hint="Principal" />
</com.google.android.material.textfield.TextInputLayout>
<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/input_layout_interest"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
32
<EditText android:id="@+id/interest"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:singleLine="true"
    android:inputType="number"
    android:digits="0123456789."
    android:hint="Interest" />
</com.google.android.material.textfield.TextInputLayout>
<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/input_layout_tenure"

```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <EditText
            android:id="@+id/years"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:inputType="number"
            android:digits="0123456789."
            android:hint="Years" />
    </com.google.android.material.textfield.TextInputLayout>
    <Button android:id="@+id/btn_calculate2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Calculate"
        android:background="#000000"
        android:layout_marginTop="40dp"
        android:textColor="#FFFFFF"/>
    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/input_layout_emi"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp">
        <EditText android:id="@+id/emi"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:maxEms="0"
            android:inputType="number"
            android:hint="EMI" />
    </com.google.android.material.textfield.TextInputLayout>
</LinearLayout>
</androidx.core.widget.NestedScrollView>
</androidx.coordinatorlayout.widget.CoordinatorLayout>

```

OUTPUT:

3:26

Ishita Hardasmalani C14-2103058

Principal

Interest

Years

CALCULATE

EMI

3:26

Ishita Hardasmalani C14-2103058

Principal
10000

Interest
5

Years
3

CALCULATE

EMI
299.7052

