# Program 3. Create an android application to find the factorial of a given number.

Activity\_main.xml

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

<LinearLayout xmlns:android="[http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent" android:background="#3779A5" android:orientation="vertical" android:weightSum="1">

<LinearLayout android:id="@+id/linearLayout1" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginLeft="10pt" android:layout\_marginTop="3pt" android:layout\_marginRight="10pt">

<EditText android:id="@+id/etNum1" android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" android:layout\_marginRight="5pt" android:layout\_weight="1" android:hint="Enter the value here" android:inputType="numberDecimal" android:textColor="#FFFFFF"></EditText>

</LinearLayout>

<LinearLayout android:id="@+id/linearLayout2" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginLeft="5pt" android:layout\_marginTop="3pt" android:layout\_marginRight="5pt">

<Button android:id="@+id/btnAdd"

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_weight="2" android:background="#7C3C3C" android:text="Factorial" android:textSize="8pt"></Button>

</LinearLayout>

<TextView android:id="@+id/tvResult" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginLeft="5pt" android:layout\_marginTop="3pt" android:layout\_marginRight="5pt" android:layout\_weight="0.07"

android:gravity="center\_horizontal" android:textColor="#FFFFFF" android:textSize="12pt"></TextView>

</LinearLayout>

MainActivity.java

package com.example.factorial;

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;

public class MainActivity extends AppCompatActivity implements View.OnClickListener{ EditText etNum1;

Button btnAdd; TextView tvResult; String oper = ""; @Override

public void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

etNum1 = (EditText) findViewById(R.id.etNum1); btnAdd = (Button) findViewById(R.id.btnAdd); tvResult = (TextView) findViewById(R.id.tvResult); btnAdd.setOnClickListener(this);

}

@Override

public void onClick(View v) { float num1=0;

float fact=1; float result = 0;

num1=Float.parseFloat(etNum1.getText().toString()); switch (v.getId()) {

case R.id.btnAdd:

oper = "+";

for(int i=1;i<=num1;i++)

{

fact=fact\*i;

}

result=fact; break; default:

break;

}

tvResult.setText("Factorial of"+ " " + num1 + " = " + result);

}

}

OUTPUT

