**PR-18**

**18 Write a program to create two screens. First screen will take one number input from user. After click on Factorial button, second screen will open and it should display factorial of the same number.**

**XML Code**

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="16dp">  
  
 <EditText  
 android:id="@+id/editTextNumber"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter a number"  
 android:inputType="number" />  
  
 <Button  
 android:id="@+id/buttonFactorial"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Factorial"  
 android:layout\_marginTop="20dp"/>  
</LinearLayout>

**activity\_second.xml**

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:orientation="vertical" android:padding="16dp">

<TextView

android:id="@+id/textViewResult"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Result here"

android:textSize="22sp" />

</LinearLayout>

**Java Code**

package com.example.factorialapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText numberInput;

Button factorialBtn;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

numberInput = findViewById(R.id.editTextNumber);

factorialBtn = findViewById(R.id.buttonFactorial);

factorialBtn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String numStr = numberInput.getText().toString();

if (!numStr.isEmpty()) {

int number = Integer.parseInt(numStr);

Intent intent = new Intent(MainActivity.this, SecondActivity.class);

intent.putExtra("number", number);

startActivity(intent);

}

}

});

}

}

**SecondActivity.java (Second Screen)**

package com.example.factorialapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {

TextView resultText;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

resultText = findViewById(R.id.textViewResult);

int number = getIntent().getIntExtra("number", 1);

long fact = 1;

for (int i = 1; i <= number; i++) {

fact \*= i;

}

resultText.setText("Factorial of " + number + " is: " + fact);

}

}