These are the android java code computed to create the app.

```java
MainActivity.java  ×
1       package com.example.sumoffactorialsapp;
2
3     > import ...
10
11    public class MainActivity extends AppCompatActivity {
12
13          @Override
14          protected void onCreate(Bundle savedInstanceState) {
15              super.onCreate(savedInstanceState);
16              setContentView(R.layout.activity_main);
17
18              EditText numberInput = findViewById(R.id.numberInput);
19              Button calculateButton = findViewById(R.id.calculateButton);
20              TextView resultView = findViewById(R.id.resultView);
21
22              calculateButton.setOnClickListener(new View.OnClickListener() {
23                  @SuppressLint("SetTextI18n")
24                  @Override
25                  public void onClick(View v) {
26                      String inputText = numberInput.getText().toString();
27                      if (!inputText.isEmpty()) {
28                          int number = Integer.parseInt(inputText);
29                          int result = sumOfFactorials(number);
30                          resultView.setText("Sum of Factorials: " + result);
31                      } else {
32                          resultView.setText("Please enter a number");
33                      }
34                  }
35              });
36          }
37
       1 usage
```

```java
1 usage
private int sumOfFactorials(int n) {
    int sum = 0;
    while (n > 0) {
        int f = 1;
        for (int i = n; i > 0; i--) {
            f = f * i;
        }
        sum += f;
        n--;
    }
    return sum;
}
```

This is android manifest file.

```xml
1    <?xml version="1.0" encoding="utf-8"?>
2    <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3        xmlns:tools="http://schemas.android.com/tools">
4
5      <application
6            android:allowBackup="true"
7            android:dataExtractionRules="@xml/data_extraction_rules"
8            android:fullBackupContent="@xml/backup_rules"
9            android:icon="@mipmap/ic_launcher"
10           android:label="SumOfFactorialsApp"
11           android:roundIcon="@mipmap/ic_launcher_round"
12           android:supportsRtl="true"
13           android:theme="@style/Theme.SumOfFactorialsApp"
14           tools:targetApi="31">
15         <activity
16             android:name=".MainActivity"
17             android:exported="true">
18             <intent-filter>
19                 <action android:name="android.intent.action.MAIN" />
20
21                 <category android:name="android.intent.category.LAUNCHER" />
22             </intent-filter>
23         </activity>
24     </application>
25
26   </manifest>
```

The activity_main xml file code is given below

```xml
1    <?xml version="1.0" encoding="utf-8"?>
2    <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
3        xmlns:tools="http://schemas.android.com/tools"
4        android:layout_width="match_parent"
5        android:layout_height="match_parent"
6        tools:context=".MainActivity">
7
8        <EditText
9            android:id="@+id/numberInput"
10           android:layout_width="wrap_content"
11           android:layout_height="wrap_content"
12           android:autofillHints=""
13           android:hint="Enter a number"
14           android:inputType="number"
15           android:layout_centerHorizontal="true"
16           android:layout_marginTop="100dp"/>
17
18       <Button
19           android:id="@+id/calculateButton"
20           android:layout_width="wrap_content"
21           android:layout_height="wrap_content"
22           android:text="Calculate Sum of Factorials"
23           android:layout_below="@id/numberInput"
24           android:layout_centerHorizontal="true"
25           android:layout_marginTop="20dp"/>
26
27       <TextView
28           android:id="@+id/resultView"
29           android:layout_width="wrap_content"
30           android:layout_height="wrap_content"
31           android:text=""
```

```
      android:textSize="20sp"
      android:layout_below="@id/calculateButton"
      android:layout_centerHorizontal="true"
      android:layout_marginTop="20dp"/>
</RelativeLayout>
```

The application developed is given below.