**Slip 17**

**Q1 Write an android code to make phone call using intent**

***Xml file***

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout 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"  
 android:orientation="vertical"  
 android:layout\_gravity="center"  
 tools:context=".MainActivity">  
 <EditText  
 android:id="@+id/edit\_phone"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Phone Number"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginRight="30dp"  
 android:inputType="number"  
 android:gravity="center" />  
  
  
 <Button  
 android:id="@+id/btn\_Dial"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Call"  
 android:backgroundTint="#DEDBDB"  
 android:layout\_marginLeft="50dp"  
 android:layout\_marginRight="50dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_gravity="center"/>  
  
  
  
</LinearLayout>

**Java file**

package com.example.phonecallslip7application;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
 Button btnDial;  
 EditText edtPhone;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 edtPhone=findViewById(R.id.*edit\_phone*);  
 btnDial=findViewById(R.id. *btn\_Dial*);  
 btnDial.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String phoneNumber =edtPhone.getText().toString();  
 Intent iDial= new Intent(Intent.*ACTION\_DIAL*,Uri.*fromParts*("tel",phoneNumber,null));  
 startActivity(iDial);  
  
 }  
 });  
 }  
}

**Q2 Construct an android Application to accept a number and calculate Factorial and sum of Digit of a give number using Context Menu**

**Xml File**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 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"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
 <EditText  
 android:id="@+id/number\_edit\_text"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter a number" />  
  
 <TextView  
 android:id="@+id/factorial\_text\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Factorial: " />  
  
 <TextView  
 android:id="@+id/sum\_of\_digits\_text\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Sum of Digits: " />  
  
  
  
</LinearLayout>

**Java file**

package com.example.myapplication;  
  
  
  
import androidx.annotation.NonNull;  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.ContextMenu;  
import android.view.MenuItem;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
  
 private EditText numberEditText;  
 private TextView factorialTextView;  
 private TextView sumOfDigitsTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 numberEditText = findViewById(R.id.*number\_edit\_text*);  
 factorialTextView = findViewById(R.id.*factorial\_text\_view*);  
 sumOfDigitsTextView = findViewById(R.id.*sum\_of\_digits\_text\_view*);  
  
 registerForContextMenu(numberEditText);  
 }  
  
 private int factorial(int n) {  
 if (n == 0 || n == 1) {  
 return 1;  
 } else {  
 return n \* factorial(n - 1);  
 }  
 }  
  
 private int sumOfDigits(int n) {  
 int sum = 0;  
 while (n > 0) {  
 sum += n % 10;  
 n /= 10;  
 }  
 return sum;  
 }  
  
 @Override  
 public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo) {  
 super.onCreateContextMenu(menu, v, menuInfo);  
 menu.setHeaderTitle("Choose an operation");  
 menu.add(0, 1, 0, "Calculate Factorial");  
 menu.add(0, 2, 0, "Calculate Sum of Digits");  
 factorialTextView.setText("Factorial: ");  
 sumOfDigitsTextView.setText("Sum of Digits: ");  
 }  
  
 @Override  
 public boolean onContextItemSelected(@NonNull MenuItem item) {  
 int number = Integer.*parseInt*(numberEditText.getText().toString());  
 switch (item.getItemId()) {  
 case 1:  
 int factorialResult = factorial(number);  
 factorialTextView.setText("Factorial: " + factorialResult);  
 return true;  
 case 2:  
 int sumResult = sumOfDigits(number);  
 sumOfDigitsTextView.setText("Sum of Digits: " + sumResult);  
 return true;  
 default:  
 return super.onContextItemSelected(item);  
 }  
 }  
}