a. Create an Android app to show and implement table layout.

b. Develop an Android Application that can calculate the sum of digits of a given number.

- **activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

        <TableRow>
            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Enter a number:"
                android:padding="8dp" />

            <EditText
                android:id="@+id/numberInput"
                android:layout_width="0dp"
                android:layout_height="wrap_content"
                android:layout_weight="1"
                android:hint="Number"
                android:inputType="number" />
        </TableRow>

        <TableRow>
            <Button
                android:id="@+id/calculateButton"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Calculate Sum" />
        </TableRow>
```

```
        <TableRow>
            <TextView
                android:id="@+id/resultText"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginTop="16dp"
                android:textSize="18sp" />
        </TableRow>
    </TableLayout>
</RelativeLayout>
```

- **MainActivity.java**

```
package com.example.sumofdigitstablelayout;

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 {

    private EditText numberInput;
    private Button calculateButton;
    private TextView resultText;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        numberInput = findViewById(R.id.numberInput);
        calculateButton = findViewById(R.id.calculateButton);
        resultText = findViewById(R.id.resultText);

        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String input = numberInput.getText().toString();
                if (!input.isEmpty()) {
                    int sum = calculateSumOfDigits(input);
```

```
                resultText.setText("Sum of digits: " + sum);
            } else {
                resultText.setText("Please enter a valid number.");
            }
        }
    });
}

private int calculateSumOfDigits(String number) {
    int sum = 0;
    for (char digit : number.toCharArray()) {
        sum += Character.getNumericValue(digit);
    }
    return sum;
}
}
```

- **Output: -**