

DigitSum.txt

Project Name : Digit Of Sum``

1. xml layouts:

1.1. activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/background_picture"
    tools:context=".MainActivity">
```

```
    <TextView
        android:layout_marginTop="60dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Click This Intent and go to Sum activity"
        android:textSize="34sp"
        android:gravity="center"
        android:fontFamily="sans-serif-smallcaps"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/textview"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.451" />
```

```
    <TextView
        android:id="@+id/textview"
        android:layout_width="185dp"
        android:layout_height="67dp"
        android:background="@drawable/textbutton"
        android:gravity="center"
        android:onClick="change_activity"
        android:padding="5dp"
        android:text="Intent"
        android:textColor="@color/black"
        android:textSize="40sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.499" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

1.2. activity_digit_sum.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/background_picture"
    tools:context=".digitSumActivity">
```

```
    <TextView
        android:id="@+id/textView"
        android:layout_width="264dp"
        android:layout_height="72dp"
        android:layout_marginTop="124dp"
        android:fontFamily="sans-serif-smallcaps"
        android:gravity="center"
        android:text="Sum Of Digit"
        android:textSize="44sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.423"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
```

```
    <EditText
        android:id="@+id/input"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="88dp"
        android:ems="10"
        android:hint="Enter a digit"
        android:inputType="text"
        android:textColor="@color/black"
        android:textColorHint="@color/black"
        android:textSize="25sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
    <EditText
        android:id="@+id/output"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="52dp"
        android:ems="10"
        android:inputType="text"
        android:hint="Result"
        android:textColorHint="@color/black"
        android:textSize="25sp"
        app:layout_constraintEnd_toEndOf="@+id/input"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="@+id/input"
        app:layout_constraintTop_toBottomOf="@+id/input" />
```

```
    <Button
        android:id="@+id/button"
        android:layout_width="139dp"
        android:layout_height="60dp"
        android:layout_marginTop="48dp"
        android:background="@drawable/textbutton"
        android:text="Sum"
        android:textSize="30sp"
        app:layout_constraintEnd_toEndOf="@+id/output"
        app:layout_constraintStart_toStartOf="@+id/output"
        app:layout_constraintTop_toBottomOf="@+id/output" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

2. Java Activities:
2.1. MainActivity.java:

```
package com.example.digit_sum;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        }
    });

    public void change_activity(View view) {
        // Show a toast message before transitioning to the new activity.
        Toast.makeText(this, "WellCome into Digit Sum Activity", Toast.LENGTH_SHORT).show();
        Intent intent = new Intent(MainActivity.this, digitSumActivity.class);
        startActivity(intent);
    }
}
```

2.2. digitSumActivity.java:

```
package com.example.digit_sum;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class digitSumActivity extends AppCompatActivity {

    private EditText input;
    private EditText output;
    private Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_digit_sum);
        // Initialize the views
        input = findViewById(R.id.input);
        output = findViewById(R.id.output);
        button = findViewById(R.id.button);
        // Set onClickListener for the button
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateDigitSum();
            }
        });
    }
    private void calculateDigitSum() {
        try {
            // Get the input number as a string
            String inputText = input.getText().toString().trim();
            // Check if the input is empty
            if (inputText.isEmpty()) {
                Toast.makeText(this, "Please enter a number", Toast.LENGTH_SHORT).show();
                return;
            }
            // Parse the input as an integer
            int number = Integer.parseInt(inputText);

            // Calculate the sum of digits
            int sum = 0;
            while (number != 0) {
                sum += number % 10;
                number /= 10;
            }
            // Display the result
            output.setText(String.valueOf(sum));
            output.setVisibility(View.VISIBLE);
        } catch (NumberFormatException e) {
            Toast.makeText(this, "Invalid input. Please enter a valid number.", Toast.LENGTH_SHORT).show();
        }
    }
}
```