

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"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/startCalculatorButton"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:text="Start Calculator"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toTopOf="@+id/startSecondActivityButton"
        android:layout_marginTop="16dp"
        android:layout_marginEnd="16dp"
        android:layout_marginStart="16dp"/>

    <Button
        android:id="@+id/startSecondActivityButton"
        android:layout_width="0dp"
        android:layout_height="wrap_content"

        android:text="Start Second Activity"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        android:layout_marginEnd="16dp"
        android:layout_marginStart="16dp"
        android:layout_marginBottom="16dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

mainActivity.kt

```
package com.example.ap3

import android.content.Intent
import android.os.Bundle
import android.widget.Button
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
```

```

import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {
    private lateinit var startCalculatorButton: Button
    private lateinit var startSecondActivityButton: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)

        // Set up edge-to-edge layout with padding for system bars
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
        }

        // Initialize buttons
        startCalculatorButton = findViewById(R.id.startCalculatorButton)
        startSecondActivityButton =
findViewById(R.id.startSecondActivityButton)

        // Set click listeners for buttons
        startCalculatorButton.setOnClickListener {
            val intent = Intent(this, CalculatorActivity::class.java)
            startActivity(intent)
        }

        startSecondActivityButton.setOnClickListener {
            val intent = Intent(this, SecondActivity::class.java).apply {
                putExtra("EXTRA_MESSAGE", "Hello from MainActivity")
            }
            startActivity(intent)
        }
    }
}

```

CalculatorActivity.kt

```

package com.example.ap3

import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.Spinner
import android.widget.TextView

```

```

import androidx.appcompat.app.AppCompatActivity

class CalculatorActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_calculator)

        val resultTextView: TextView = findViewById(R.id.resultTextView)
        val number1EditText: EditText = findViewById(R.id.number1EditText)
        val number2EditText: EditText = findViewById(R.id.number2EditText)
        val operationSpinner: Spinner = findViewById(R.id.operationSpinner)
        val calculateButton: Button = findViewById(R.id.calculateButton)

        calculateButton.setOnClickListener {
            val number1 = number1EditText.text.toString().toDoubleOrNull() ?:
0.0
            val number2 = number2EditText.text.toString().toDoubleOrNull() ?:
0.0
            val operation = operationSpinner.selectedItem.toString()

            val result = when (operation) {
                "+" -> number1 + number2
                "-" -> number1 - number2
                "*" -> number1 * number2
                "/" -> if (number2 != 0.0) number1 / number2 else "Error"
                else -> "Invalid Operation"
            }
            resultTextView.text = result.toString()
        }
    }
}

```

second activity.kt

```

package com.example.ap3

import android.os.Bundle
import android.widget.AdapterView
import android.widget.Button
import android.widget.Spinner
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class SecondActivity : AppCompatActivity() {
    private lateinit var myButton: Button
    private lateinit var mySpinner: Spinner

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_second)

        myButton = findViewById(R.id.myButton)
        mySpinner = findViewById(R.id.mySpinner)
    }
}

```

```
        myButton.setOnClickListener {
            Toast.makeText(this, "Button Clicked!",
                Toast.LENGTH_SHORT).show()
        }

        mySpinner.onItemSelectedListener = object :
            AdapterView.OnItemSelectedListener {
                override fun onItemSelected(parent: AdapterView<*>, view: View?,
                    position: Int, id: Long) {
                    val selectedItem =
                        parent.getItemAtPosition(position).toString()
                    Toast.makeText(this@SecondActivity, "Selected:
                        $selectedItem", Toast.LENGTH_SHORT).show()
                }

                override fun onNothingSelected(parent: AdapterView<*>) {}
            }
    }
}
```