

# Mobile programming

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### Question 2:

Create an app of your choice(do not repeat question 1) as a topic that uses several views with at least a Button and Spinner with their Listeners (setOnClickListener and onItemSelectedListener), accordingly

### MainActivity.kt

```
package com.example.mykotlinapp

import android.os.Bundle
import android.view.View
import android.widget.Button
import android.widget.EditText
import android.widget.Spinner
import android.widget.TextView
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity(), View.OnClickListener {

    lateinit var spinner: Spinner
    lateinit var etA: EditText
    lateinit var etB: EditText
    lateinit var res: TextView
    lateinit var btn: Button

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

        etA = findViewById(R.id.et_a)
        etB = findViewById(R.id.et_b)
        res = findViewById(R.id.result)
```

```

        btn=findViewById(R.id.button)
        spinner=findViewById(R.id.spinner_operations)

btn.setOnClickListener(this)

    }

    override fun onClick(v: View?) {
        var a=etA.text.toString().toDouble()
        var b=etB.text.toString().toDouble()
        var result=0.0
        when(spinner.selectedItem.toString()){
            "add"->{result=a+b}
            "sub" ->{result=a-b}
            "mul" ->{result=a*b}
            "div" ->{result=a/b}
        }
        res.text="Result is $result"
    }
}

```

## Activitymain.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/addWorkoutButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add Workout"
        android:textColor="@android:color/white"
        android:background="@drawable/button_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

## Logworkoutactivity.kt

```
package com.example.myapplication

import android.os.Bundle
import android.view.View
import android.widget.AdapterView
import android.widget.AdapterView.Adapter
import android.widget.AdapterView.OnItemClickListener
import android.widget.ArrayAdapter
import android.widget.Button
import android.widget.Spinner
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class LogWorkoutActivity : AppCompatActivity() {

    private lateinit var workoutTypeSpinner: Spinner
    private lateinit var saveWorkoutButton: Button

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

        workoutTypeSpinner = findViewById(R.id.workoutTypeSpinner)
        saveWorkoutButton = findViewById(R.id.saveWorkoutButton)

        // Set up Spinner with workout types
        val adapter = ArrayAdapter.createFromResource(
            this,
            R.array.workout_types,
            android.R.layout.simple_spinner_item
        )

        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item)
        workoutTypeSpinner.adapter = adapter

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

            override fun onNothingSelected(parent: AdapterView<*>?) {
                // Do nothing
            }
        }
    }
}
```

```

    }

    saveWorkoutButton.setOnClickListener {
        val selectedWorkout = workoutTypeSpinner.selectedItem.toString()
        Toast.makeText(this@LogWorkoutActivity, "Workout Saved:
$selectedWorkout", Toast.LENGTH_SHORT).show()
    }
}
}

```

## Activity\_log\_workout.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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".LogWorkoutActivity">

    <Spinner
        android:id="@+id/workoutTypeSpinner"
        android:layout_width="0dp"
        android:layout_height="48dp"
        android:layout_marginTop="24dp"
        android:background="@drawable/spinner_background"
        android:paddingStart="12dp"
        android:paddingEnd="12dp"
        android:spinnerMode="dropdown"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:spinnerMode="dialog" />

    <Button
        android:id="@+id/saveWorkoutButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Save Workout"
        android:textColor="@android:color/white"
        android:background="@drawable/button_background"
        app:layout_constraintTop_toBottomOf="@id/workoutTypeSpinner"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        android:layout_marginTop="24dp"
        android:layout_marginBottom="24dp"/>

```

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

## OUTPUTS:



