

Experiment – 4

Aim: Design an application to fill the course selection of discipline electives for upcoming semester using Spinner by reading the input from user

Solution:

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

<TextView
    android:id="@+id/header"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Electives Selection"
    android:textSize="34sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/nameBox"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/nameLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Student Name"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/nameBox"
    app:layout_constraintTop_toBottomOf="@+id/header"
    app:layout_constraintBottom_toTopOf="@+id/rollnoLbl" />

<EditText
    android:id="@+id/nameBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:minHeight="48dp"
    android:hint="Enter Student Name"
    android:inputType="text"
    app:layout_constraintStart_toEndOf="@+id/nameLbl"
    app:layout_constraintTop_toBottomOf="@+id/header"
    app:layout_constraintBottom_toTopOf="@+id/rollnoBox"
```

```
app:layout_constraintEnd_toEndOf="parent"/>
```

```
<TextView
    android:id="@+id/rollnoLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Roll No"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/nameLbl"
    app:layout_constraintEnd_toStartOf="@+id/rollnoBox"
    app:layout_constraintBottom_toTopOf="@+id/delbl"/>
```

```
<EditText
    android:id="@+id/rollnoBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:minHeight="48dp"
    android:hint="Enter Student RollNo"
    android:inputType="text"
    app:layout_constraintStart_toEndOf="@+id/rollnoLbl"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintBottom_toTopOf="@+id/delbl"
    app:layout_constraintTop_toBottomOf="@+id/nameBox"/>
```

```
<TextView
    android:id="@+id/delbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Discipline Elective"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/electivesBox"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.054"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/rollnoLbl" />
```

```
<Spinner
    android:id="@+id/electivesBox"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:minHeight="48dp"
    app:layout_constraintBottom_toTopOf="@+id/SubmitBtn"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/delbl"/>
```

```
<Button
    android:id="@+id/SubmitBtn"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Submit"
        android:onClick="displayDetails"
        app:layout_constraintTop_toBottomOf="@+id/electivesBox"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintBottom_toTopOf="@+id/result"
        app:layout_constraintEnd_toStartOf="@+id/ResetBtn"/>

<Button
    android:id="@+id/ResetBtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Reset"
    android:onClick="resetDetails"
    app:layout_constraintStart_toEndOf="@+id/SubmitBtn"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/electivesBox"
    app:layout_constraintBottom_toTopOf="@+id/result"/>

<TextView
    android:id="@+id/result"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:gravity="center_horizontal"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/SubmitBtn"/>
</androidx.constraintlayout.widget.ConstraintLayout>

```

strings.xml:

```

<resources>
    <string name="app_name">DESelectionSpinner</string>
    <string-array name="courses">
        <item>Mobile Application Development</item>
        <item>Java Full Stack</item>
        <item>.Net Full Stack</item>
    </string-array>
</resources>

```

MainActivity.java:

```

package com.example.deselectionspinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;

```

```

import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    EditText name,rollno;
    Spinner elec;
    TextView res;
    String selectedCourse;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name = findViewById(R.id.nameBox);
        rollno = findViewById(R.id.rollnoBox);
        elec = findViewById(R.id.electivesBox);
        res = findViewById(R.id.result);
        ArrayAdapter adapter = new ArrayAdapter(this,
android.R.layout.simple_spinner_item,getResources().getStringArray(R.array.courses));
        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        elec.setAdapter(adapter);
        elec.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {
                selectedCourse = parent.getItemAtPosition(position).toString();
            }

            @Override
            public void onNothingSelected(AdapterView<?> parent) {

            }
        });
    }
    public void displayDetails(View v) {
        res.setText("Name: "+name.getText().toString()+"\nRoll No: "+rollno.getText().toString()+"\nSelected Course: "+selectedCourse);
    }
    public void resetDetails(View v){
        name.setText("");
        rollno.setText("");
        res.setText("");
    }
}

```

Output:

The image displays three sequential screenshots of a mobile application interface titled "Electives Selection".

Screenshot 1 (Left): Shows the initial form with empty input fields. The fields are labeled "Student Name" (with placeholder "Enter Student Name"), "Roll No" (with placeholder "Enter Student RollNo"), "Discipline Elective", and "Mobile Application Development" (with a dropdown arrow).

Screenshot 2 (Middle): Shows the form filled with sample data. "Student Name" is "Sindhuri", "Roll No" is "202121CSE0001", "Discipline Elective" is "Java Full Stack", and "Mobile Application Development" is "Java Full Stack". At the bottom, there are "Submit" and "Reset" buttons. Below the buttons, the submitted data is displayed: "Name: Sindhuri", "Roll No: 202121CSE0001", and "Selected Course: Java Full Stack".

Screenshot 3 (Right): Shows the form with empty input fields, identical to the first screenshot, indicating a reset state.