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
<?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"
```

```xml
        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"
```

```xml
            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:

```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:

```java
package com.example.deselectionspinner;

import androidx.appcompat.app.AppCompatActivity;

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

```java
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: