Experiment – 3

Aim: Design an application to fill the registration form using AutoCompleteTextView and RadioButton 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="Registration Form"
    android:textSize="34sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/nameLbl"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.605"
    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="Name"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/FNameLbl"
    app:layout_constraintEnd_toStartOf="@+id/NameBox"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/header" />

  <AutoCompleteTextView
    android:id="@+id/PlaceBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:hint="Enter Location"
    android:minHeight="48dp"
    app:layout_constraintBottom_toTopOf="@+id/SubmitBtn"
    app:layout_constraintStart_toEndOf="@+id/PlaceLbl"
    app:layout_constraintTop_toBottomOf="@+id/GenderGroup"
    app:layout_constraintEnd_toEndOf="parent"/>
```

```xml
<TextView
    android:id="@+id/PlaceLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Place of Birth"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/GenderGroup"
    app:layout_constraintEnd_toStartOf="@+id/PlaceBox"
    app:layout_constraintBottom_toTopOf="@+id/SubmitBtn"/>

<TextView
    android:id="@+id/GenderLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Gender"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/PlaceLbl"
    app:layout_constraintEnd_toStartOf="@+id/GenderGroup"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/FNameLbl" />

<TextView
    android:id="@+id/FNameLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Father Name"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/GenderLbl"
    app:layout_constraintEnd_toStartOf="@+id/FNameBox"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/nameLbl" />

<RadioGroup
    android:id="@+id/GenderGroup"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintStart_toEndOf="@+id/GenderLbl"
    app:layout_constraintBottom_toTopOf="@+id/PlaceBox"
    app:layout_constraintTop_toBottomOf="@+id/FNameBox"
    app:layout_constraintEnd_toEndOf="parent">

    <RadioButton
        android:id="@+id/MaleBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Male" />

    <RadioButton
```

```xml
        android:id="@+id/FemaleBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Female" />

    </RadioGroup>

    <EditText
        android:id="@+id/NameBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Name"
        android:inputType="text"
        android:minHeight="48dp"
        app:layout_constraintBottom_toTopOf="@+id/FNameBox"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/nameLbl"
        app:layout_constraintTop_toBottomOf="@+id/header" />

    <EditText
        android:id="@+id/FNameBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Father Name"
        android:inputType="text"
        android:minHeight="48dp"
        app:layout_constraintBottom_toTopOf="@+id/GenderGroup"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/FNameLbl"
        app:layout_constraintTop_toBottomOf="@+id/NameBox" />

    <Button
        android:id="@+id/SubmitBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Submit"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/PlaceBox"
        app:layout_constraintBottom_toBottomOf="parent"/>


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

MainActivity.java:
```java
package com.example.registrationformacrg;

import androidx.appcompat.app.AppCompatActivity;
```

```java
import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText name,fname;
    AutoCompleteTextView places;
    RadioGroup rg;
    RadioButton rb;
    Button btn;
    String[] Locations = {"Bangalore","Delhi","Pune","Bombay","Chennai","Hyderabad","Calcutta"};
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name = findViewById(R.id.NameBox);
        fname = findViewById(R.id.FNameBox);
        places = findViewById(R.id.PlaceBox);
        btn = findViewById(R.id.SubmitBtn);
        ArrayAdapter adapter = new ArrayAdapter(this, android.R.layout.select_dialog_item,Locations);
        places.setThreshold(1);
        places.setAdapter(adapter);
        rg = findViewById(R.id.GenderGroup);
        rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(RadioGroup group, int checkedId) {
                rb = findViewById(checkedId);
            }
        });
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String res1 = "Name: "+name.getText().toString()+"\nFather Name:
"+fname.getText().toString()+"\nGender: "+rb.getText()+"\nPlace of Birth:
"+places.getText().toString();
                Toast.makeText(MainActivity.this,res1,Toast.LENGTH_SHORT).show();
            }
        });
    }
```

Output:

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:

Experiment – 5

Aim: Design an application to check the user is eligibility to vote or not by reading the data of birth and aadhar card number.

acitivity_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="Vote Eligibility"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toTopOf="@+id/nameBox"/>

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

    <EditText
        android:id="@+id/nameBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:minHeight="48dp"
        android:hint="Enter Username"
        android:inputType="text"
        app:layout_constraintStart_toEndOf="@+id/nameLbl"
        app:layout_constraintBottom_toTopOf="@+id/aadharBox"
        app:layout_constraintTop_toBottomOf="@+id/header"
        app:layout_constraintEnd_toEndOf="parent"/>
```

```xml
<TextView
    android:id="@+id/aadharLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Aadhar No."
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/nameLbl"
    app:layout_constraintBottom_toTopOf="@+id/dobLbl"
    app:layout_constraintEnd_toStartOf="@+id/aadharBox"/>

<EditText
    android:id="@+id/aadharBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:minHeight="48dp"
    android:hint="Enter Aadhar Number"
    android:inputType="number"
    app:layout_constraintStart_toEndOf="@+id/aadharLbl"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/nameBox"
    app:layout_constraintBottom_toTopOf="@id/dateBox"/>

<TextView
    android:id="@+id/dobLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Date of Birth"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/checkBtn"
    app:layout_constraintTop_toBottomOf="@+id/aadharLbl"
    app:layout_constraintEnd_toStartOf="@+id/dateBox"
    app:layout_constraintStart_toStartOf="parent"/>

<EditText
    android:id="@+id/dateBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:minHeight="48dp"
    android:hint="Select Date"
    android:inputType="date"
    app:layout_constraintStart_toEndOf="@+id/dobLbl"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/aadharBox"
    app:layout_constraintBottom_toTopOf="@+id/checkBtn"/>

<Button
```

```
            android:id="@+id/checkBtn"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Check"
            android:onClick="checkEligibility"
            app:layout_constraintTop_toBottomOf="@+id/aadharBox"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintBottom_toBottomOf="parent"/>

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

MainActivity.java:

```java
package com.example.agecalcdpd;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.app.DatePickerDialog;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.EditText;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {
    EditText name, num, date;
    Button btn;
    int diff;

    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name = findViewById(R.id.nameBox);
        num = findViewById(R.id.aadharBox);
        date = findViewById(R.id.dateBox);
        date.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Calendar c = Calendar.getInstance();
                int pYear = c.get(Calendar.YEAR);
                int pMonth = c.get(Calendar.MONTH);
                int pDate = c.get(Calendar.DATE);
```

```java
        DatePickerDialog dialog = new DatePickerDialog(MainActivity.this,
android.R.style.Theme_DeviceDefault_DialogWhenLarge, new
DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int year, int month, int dayOfMonth) {
                date.setText(dayOfMonth+"/"+(month+1)+"/"+year);
                diff = pYear - year;
            }
        },pYear, pMonth, pDate);
        dialog.show();
      }
    });
  }

  public void checkEligibility(View v) {
    String s_name = name.getText().toString();
    String s_num = num.getText().toString();
    Intent in = new Intent(getApplicationContext(), ResultActivity.class);
    in.putExtra("NAME",s_name);
    in.putExtra("AADHAR",s_num);
    in.putExtra("AGE",diff);
    startActivity(in);
  }
}
```

activity_result.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=".ResultActivity">

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

ResultActivity.java:
```java
package com.example.agecalcdpd;
```
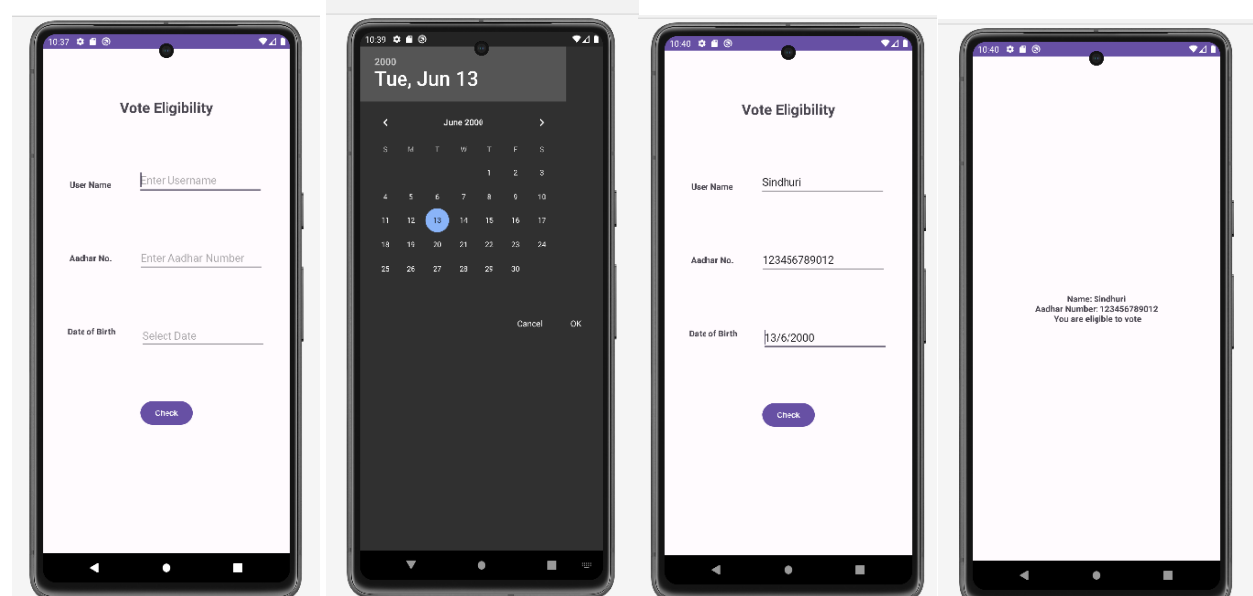
```java
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class ResultActivity extends AppCompatActivity {
    TextView res;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_result);
        res = findViewById(R.id.result);
        Intent intt = getIntent();
        String r_name = intt.getStringExtra("NAME");
        String r_aadhar = intt.getStringExtra("AADHAR");
        int age = intt.getIntExtra("AGE",0);
        if(age>=18)
            res.setText("Name: "+r_name+"\nAadhar Number: "+r_aadhar+"\n You are eligible to vote");
        else
            res.setText("Name: "+r_name+"\nAadhar Number: "+r_aadhar+"\n You are not eligible to vote");
    }
}
```

Output:

Experiment – 6

Aim: Design an application to order the cake by selecting the date and time and display the order details in another activity.

acitivity_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="Cake Bakery"
    android:textSize="34sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toTopOf="@+id/cakeBox"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

  <TextView
    android:id="@+id/itemLbl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="76dp"
    android:text="Cake Flavour"
    android:textStyle="bold"
    app:layout_constraintEnd_toStartOf="@+id/cakeBox"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/header" />

  <Spinner
    android:id="@+id/cakeBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:minHeight="48dp"
    app:layout_constraintTop_toBottomOf="@+id/header"
    app:layout_constraintBottom_toTopOf="@+id/cakeImage"
    app:layout_constraintStart_toEndOf="@+id/itemLbl"
    app:layout_constraintEnd_toEndOf="parent" />

  <TextView
    android:id="@+id/dateLbl"
```

```xml
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Date of Delivery"
        android:textStyle="bold"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/cakeImage"
        app:layout_constraintTop_toBottomOf="@+id/itemLbl"
        app:layout_constraintBottom_toTopOf="@+id/timeLbl" />

    <ImageView
        android:id="@+id/cakeImage"
        android:layout_width="157dp"
        android:layout_height="152dp"
        app:srcCompat="@drawable/download"
        android:onClick="selectDate"
        app:layout_constraintBottom_toTopOf="@+id/timeImage"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/dateLbl"
        app:layout_constraintTop_toBottomOf="@+id/cakeBox" />

    <TextView
        android:id="@+id/timeLbl"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Time of Delivery"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/orderBtn"
        app:layout_constraintEnd_toStartOf="@id/timeImage"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/dateLbl"
        android:contentDescription="@null"/>

    <ImageView
        android:id="@+id/timeImage"
        android:layout_width="192dp"
        android:layout_height="102dp"
        android:onClick="selectTime"
        app:layout_constraintBottom_toTopOf="@+id/orderBtn"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/timeLbl"
        app:layout_constraintTop_toBottomOf="@+id/cakeImage"
        app:srcCompat="@drawable/_90436_time" />

    <Button
        android:id="@+id/orderBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Place Order"
        android:onClick="placeOrder"
        app:layout_constraintStart_toStartOf="parent"
```

```xml
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/timeImage"/>
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java:

```java
package com.example.cakedelapptp;

import androidx.appcompat.app.AppCompatActivity;

import android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.DatePicker;
import android.widget.Spinner;
import android.widget.TimePicker;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {
    Spinner cakeitem;
    String[] cakes = {"Vanilla","Red Velvet","Choclate","Strawberry","Butterscotch"};
    String c_flavour,datedel,timedel;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        cakeitem = findViewById(R.id.cakeBox);
        ArrayAdapter adapter = new ArrayAdapter(this, android.R.layout.simple_spinner_item,cakes);
        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        cakeitem.setAdapter(adapter);
        cakeitem.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {
                c_flavour = parent.getItemAtPosition(position).toString();
            }

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

            }
        });
    }
    public void selectDate(View v){
        Calendar c = Calendar.getInstance();
```

```java
        int pYear = c.get(Calendar.YEAR);
        int pMonth = c.get(Calendar.MONTH);
        int pDate = c.get(Calendar.DATE);
        DatePickerDialog dialog = new DatePickerDialog(this,
android.R.style.Theme_DeviceDefault_DialogWhenLarge, new
DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int year, int month, int dayOfMonth) {
                datedel = dayOfMonth+"/"+(month+1)+"/"+year;
            }
        },pYear,pMonth,pDate);
        dialog.show();
    }
    public void selectTime(View v){
        Calendar c1 = Calendar.getInstance();
        int pHour = c1.get(Calendar.HOUR);
        int pMinute = c1.get(Calendar.MINUTE);
        TimePickerDialog tdialog = new TimePickerDialog(this,
android.R.style.Theme_DeviceDefault_DialogWhenLarge, new
TimePickerDialog.OnTimeSetListener() {
            @Override
            public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
                timedel = hourOfDay+":"+minute;
            }
        },pHour,pMinute,false);
        tdialog.show();
    }
    public void placeOrder(View v) {
        Intent in = new Intent(getApplicationContext(), OrderActivity.class);
        in.putExtra("ITEM",c_flavour);
        in.putExtra("DATE",datedel);
        in.putExtra("TIME",timedel);
        startActivity(in);
    }
}
```

Activity_order.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=".OrderActivity">

    <TextView
        android:id="@+id/result"
        android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"
            android:gravity="center_horizontal"
            android:textStyle="bold"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```
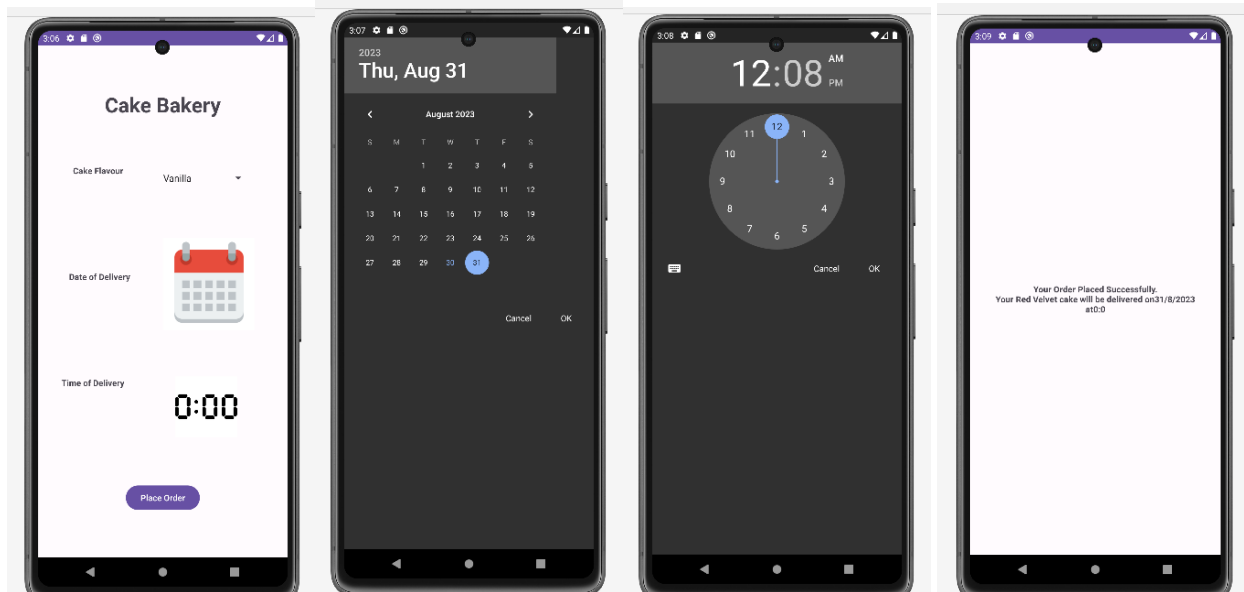
OrderActivity.java:

```
package com.example.cakedelapptp;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class OrderActivity extends AppCompatActivity {
  TextView res;
  @SuppressLint("MissingInflatedId")
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_order);
    res = findViewById(R.id.result);
    Intent intt = getIntent();
    String cakeFlavour = intt.getStringExtra("ITEM");
    String dated = intt.getStringExtra("DATE");
    String timed = intt.getStringExtra("TIME");
    res.setText("Your Order Placed Successfully."+"\nYour "+cakeFlavour+" cake will be delivered
on"+dated+"\nat"+timed);
  }
}
```

Output:

Experiment – 7

Aim: Design an application to provide the nutrition details of burger and pizza by using fragments.

acitivity_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">

    <ImageView
        android:id="@+id/burgerBtn"
        android:layout_width="180dp"
        android:layout_height="205dp"
        app:srcCompat="@drawable/photo_1571091718767_18b5b1457add"
        android:onClick="changeFragment"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/pizzaBtn"
        app:layout_constraintBottom_toTopOf="@+id/fragmentPortion"/>

    <ImageView
        android:id="@+id/pizzaBtn"
        android:layout_width="179dp"
        android:layout_height="184dp"
        app:srcCompat="@drawable/pizza_recipe_1"
        android:onClick="changeFragment"
        app:layout_constraintStart_toEndOf="@+id/burgerBtn"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toTopOf="@+id/fragmentPortion"/>

    <androidx.fragment.app.FragmentContainerView
        android:id="@+id/fragmentPortion"
        android:name="com.example.fragmentsexample.BlankFragment"
        android:layout_width="375dp"
        android:layout_height="375dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/burgerBtn"/>

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

MainActivity.java:

```java
package com.example.fragmentsexample;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentTransaction;

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

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void changeFragment(View v){
        Fragment frag;
        FragmentManager fm = getSupportFragmentManager();
        FragmentTransaction ft = fm.beginTransaction();
        if(v==findViewById(R.id.burgerBtn)){
            frag = new BlankFragment();
            ft.replace(R.id.fragmentPortion,frag);
            ft.commit();
        }
        if(v==findViewById(R.id.pizzaBtn)){
            frag = new BlankFragment2();
            ft.replace(R.id.fragmentPortion,frag);
            ft.commit();
        }
    }
}
```

fragment_blank.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#BF9000"
    tools:context=".BlankFragment">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
```

```xml
        android:textSize="24dp"
        android:textStyle="bold"
        android:textAlignment="center"
        android:textColor="#990000"
        android:text = "Burger Details\nCalories:354\nFat:18g\nProtein:22g"
        android:gravity="center_vertical"
        tools:ignore="RtlCompat" />

</FrameLayout>
```

BlankFragment.java:

```java
package com.example.fragmentsexample;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

/**
 * A simple {@link Fragment} subclass.
 * Use the {@link BlankFragment#newInstance} factory method to
 * create an instance of this fragment.
 */
public class BlankFragment extends Fragment {

    // TODO: Rename parameter arguments, choose names that match
    // the fragment initialization parameters, e.g. ARG_ITEM_NUMBER
    private static final String ARG_PARAM1 = "param1";
    private static final String ARG_PARAM2 = "param2";

    // TODO: Rename and change types of parameters
    private String mParam1;
    private String mParam2;

    public BlankFragment() {
        // Required empty public constructor
    }

    /**
     * Use this factory method to create a new instance of
     * this fragment using the provided parameters.
     *
     * @param param1 Parameter 1.
     * @param param2 Parameter 2.
     * @return A new instance of fragment BlankFragment.
     */
```

```java
    // TODO: Rename and change types and number of parameters
    public static BlankFragment newInstance(String param1, String param2) {
        BlankFragment fragment = new BlankFragment();
        Bundle args = new Bundle();
        args.putString(ARG_PARAM1, param1);
        args.putString(ARG_PARAM2, param2);
        fragment.setArguments(args);
        return fragment;
    }

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        if (getArguments() != null) {
            mParam1 = getArguments().getString(ARG_PARAM1);
            mParam2 = getArguments().getString(ARG_PARAM2);
        }
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_blank, container, false);
    }
}
```

fragment_blank2.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#38761d"
    tools:context=".BlankFragment2">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:textSize="24dp"
        android:textStyle="bold"
        android:textAlignment="center"
        android:textColor="#85200c"
        android:text = "Pizza Details\nCalories:285\nFat:10g\nProtein:12g"
        android:gravity="center_vertical"
        tools:ignore="RtlCompat" />

</FrameLayout>
```

BlankFragment2.xml:

```java
package com.example.fragmentsexample;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

/**
 * A simple {@link Fragment} subclass.
 * Use the {@link BlankFragment2#newInstance} factory method to
 * create an instance of this fragment.
 */
public class BlankFragment2 extends Fragment {

    // TODO: Rename parameter arguments, choose names that match
    // the fragment initialization parameters, e.g. ARG_ITEM_NUMBER
    private static final String ARG_PARAM1 = "param1";
    private static final String ARG_PARAM2 = "param2";

    // TODO: Rename and change types of parameters
    private String mParam1;
    private String mParam2;

    public BlankFragment2() {
        // Required empty public constructor
    }

    /**
     * Use this factory method to create a new instance of
     * this fragment using the provided parameters.
     *
     * @param param1 Parameter 1.
     * @param param2 Parameter 2.
     * @return A new instance of fragment BlankFragment2.
     */
    // TODO: Rename and change types and number of parameters
    public static BlankFragment2 newInstance(String param1, String param2) {
        BlankFragment2 fragment = new BlankFragment2();
        Bundle args = new Bundle();
        args.putString(ARG_PARAM1, param1);
        args.putString(ARG_PARAM2, param2);
        fragment.setArguments(args);
        return fragment;
    }
```

```java
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        if (getArguments() != null) {
            mParam1 = getArguments().getString(ARG_PARAM1);
            mParam2 = getArguments().getString(ARG_PARAM2);
        }
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                 Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_blank2, container, false);
    }
}
```
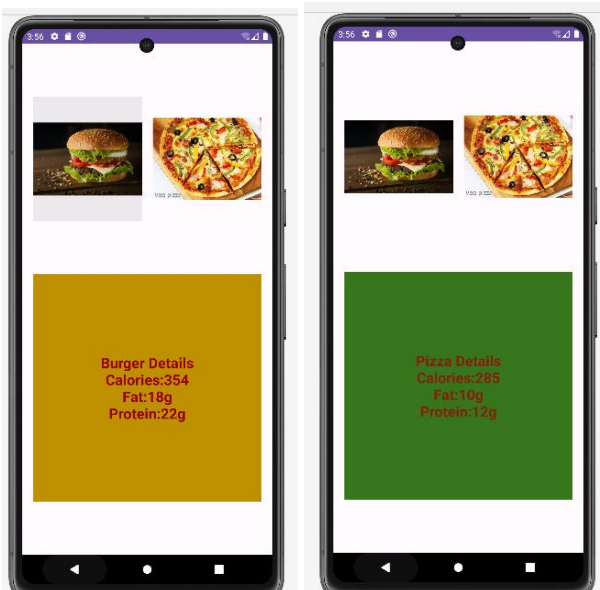
Output:

Aim: Design an application to provide the student details with section number using fragments.

acitivity_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">

    <ListView
        android:id="@+id/studentList"
        android:layout_width="175dp"
        android:layout_height="match_parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/fragmentPortion"
        app:layout_constraintBottom_toBottomOf="parent"/>

    <androidx.fragment.app.FragmentContainerView
        android:id="@+id/fragmentPortion"
        android:name="com.example.studentdetailsfragments.DetailsFragment"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toEndOf="@+id/studentList"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintEnd_toEndOf="parent"/>

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

MainActivity.java:

```java
package com.example.studentdetailsfragments;

import androidx.appcompat.app.AppCompatActivity;

import android.app.Fragment;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;

public class MainActivity extends AppCompatActivity {
```

```java
    ListView list;
    String Stu[] = {"ABC","DEF","GHI","JKL"};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        list = findViewById(R.id.studentList);
        ArrayAdapter adapter = new ArrayAdapter(this, android.R.layout.simple_list_item_1,Stu);
        list.setAdapter(adapter);
        list.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
                DetailsFragment frag = (DetailsFragment)
getSupportFragmentManager().findFragmentById(R.id.fragmentPortion);
                frag.change(position);
            }
        });
    }
}
```

fragment_details.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".DetailsFragment">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:id="@+id/result"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:textAlignment="center"
        android:gravity="center_vertical"
        android:text="Name: \nSection Number:"
        android:textStyle="bold"
        android:textSize="18dp"
        tools:ignore="RtlCompat" />

</FrameLayout>
```

DetailsFragment.java:

```java
package com.example.studentdetailsfragments;

import android.os.Bundle;
```

```java
import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.TextView;

/**
 * A simple {@link Fragment} subclass.
 * Use the {@link DetailsFragment#newInstance} factory method to
 * create an instance of this fragment.
 */
public class DetailsFragment extends Fragment {

    // TODO: Rename parameter arguments, choose names that match
    // the fragment initialization parameters, e.g. ARG_ITEM_NUMBER
    private static final String ARG_PARAM1 = "param1";
    private static final String ARG_PARAM2 = "param2";

    // TODO: Rename and change types of parameters
    private String mParam1;
    private String mParam2;
    String Users[] = {"ABC","DEF","GHI","JKL"};
    String Section[] = {"5CSE1","5CSE2","5CSE3","5CSE4"};
    TextView res;

    public DetailsFragment() {
        // Required empty public constructor
    }

    /**
     * Use this factory method to create a new instance of
     * this fragment using the provided parameters.
     *
     * @param param1 Parameter 1.
     * @param param2 Parameter 2.
     * @return A new instance of fragment DetailsFragment.
     */
    // TODO: Rename and change types and number of parameters
    public static DetailsFragment newInstance(String param1, String param2) {
        DetailsFragment fragment = new DetailsFragment();
        Bundle args = new Bundle();
        args.putString(ARG_PARAM1, param1);
        args.putString(ARG_PARAM2, param2);
        fragment.setArguments(args);
        return fragment;
    }

    @Override
    public void onCreate(Bundle savedInstanceState) {
```

```
      super.onCreate(savedInstanceState);
      if (getArguments() != null) {
         mParam1 = getArguments().getString(ARG_PARAM1);
         mParam2 = getArguments().getString(ARG_PARAM2);
      }

   }

   @Override
   public View onCreateView(LayoutInflater inflater, ViewGroup container,
                 Bundle savedInstanceState) {
      // Inflate the layout for this fragment
      View view = inflater.inflate(R.layout.fragment_details, container, false);
      res = view.findViewById(R.id.result);
      return view;
   }
   public void change(int position){
      res.setText("Name: "+Users[position]+"\nSection Number: "+Section[position]);
   }
}
```

Output: