import java.util.ArrayList;

import java.util.Scanner;

import java.util.List;

import java.time.LocalDate;

import java.time.Period;

class Student {

String name;

int id;

LocalDate dob;

double gpa;

int semester;

public Student(String name, int id, LocalDate dob, double gpa, int semester) {

this.name = name;

this.id = id;

this.dob = dob;

this.gpa = gpa;

this.semester = semester;

}

public int calculateAge() {

LocalDate currentDate = LocalDate.now();

return Period.between(dob, currentDate).getYears();

}

@Override

public String toString() {

return "Student{name='" + name + "', id=" + id + ", dob=" + dob + ", gpa=" + gpa + ", semester=" + semester + "}";

}

}

public class StudentManagement {

// Function to add a student to the list

public static void addStudent(List<Student> students, Scanner scanner) {

System.out.println("Enter student name:");

String name = scanner.next();

System.out.println("Enter student ID:");

int id = scanner.nextInt();

System.out.println("Enter student Date of Birth (YYYY-MM-DD):");

String dobString = scanner.next();

LocalDate dob = LocalDate.parse(dobString);

System.out.println("Enter student GPA:");

double gpa = scanner.nextDouble();

System.out.println("Enter student semester:");

int semester = scanner.nextInt();

students.add(new Student(name, id, dob, gpa, semester));

System.out.println("Student added successfully!");

}

// Function to remove a student by ID

public static void removeStudent(List<Student> students, Scanner scanner) {

System.out.println("Enter student ID to remove:");

int id = scanner.nextInt();

Student toRemove = null;

for (Student student : students) {

if (student.id == id) {

toRemove = student;

break;

}

}

if (toRemove != null) {

students.remove(toRemove);

System.out.println("Student removed successfully.");

} else {

System.out.println("Student with ID " + id + " not found.");

}

}

public static void main(String[] args) {

List<Student> students = new ArrayList<>();

students.add(new Student("Alice", 101, LocalDate.of(2000, 5, 14), 2.8, 3));

students.add(new Student("Bob", 102, LocalDate.of(1999, 7, 20), 3.5, 5));

Scanner scanner = new Scanner(System.in);

while (true) {

System.out.println("\nMenu:");

System.out.println("1. Add Student");

System.out.println("2. Remove Student");

System.out.println("3. View Students");

System.out.println("4. Exit");

int choice = scanner.nextInt();

switch (choice) {

case 1:

addStudent(students, scanner);

break;

case 2:

removeStudent(students, scanner);

break;

case 3:

System.out.println("\nStudent List:");

for (Student student : students) {

System.out.println(student);

}

break;

case 4:

System.out.println("Exiting...");

scanner.close();

System.exit(0);

default:

System.out.println("Invalid choice. Try again.");

}

}

}

}