import java.io.\*;

import java.util.Scanner;

class Patient {

private String name;

private int age;

private String gender;

private String ailment;

// Constructor

public Patient(String name, int age, String gender, String ailment) {

this.name = name;

this.age = age;

this.gender = gender;

this.ailment = ailment;

}

// Getters

public String getName() {

return name;

}

public int getAge() {

return age;

}

public String getGender() {

return gender;

}

public String getAilment() {

return ailment;

}

// Method to display patient details

public void display() {

System.out.println("Name: " + name);

System.out.println("Age: " + age);

System.out.println("Gender: " + gender);

System.out.println("Ailment: " + ailment);

}

}

public class HospitalManagementSystem {

private static final String FILE\_NAME = "patients.txt";

// Method to add a patient record

public static void addPatient() {

try {

BufferedWriter writer = new BufferedWriter(new FileWriter(FILE\_NAME, true));

Scanner scanner = new Scanner(System.in);

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

String name = scanner.nextLine();

System.out.println("Enter patient age:");

int age = Integer.parseInt(scanner.nextLine());

System.out.println("Enter patient gender:");

String gender = scanner.nextLine();

System.out.println("Enter patient ailment:");

String ailment = scanner.nextLine();

Patient patient = new Patient(name, age, gender, ailment);

writer.write(patient.getName() + "," + patient.getAge() + "," + patient.getGender() + "," + patient.getAilment());

writer.newLine();

writer.close();

System.out.println("Patient record added successfully.");

} catch (IOException e) {

System.err.println("Error adding patient record: " + e.getMessage());

}

}

// Method to search for a patient record

public static void searchPatient() {

try {

BufferedReader reader = new BufferedReader(new FileReader(FILE\_NAME));

Scanner scanner = new Scanner(System.in);

System.out.println("Enter patient name to search:");

String name = scanner.nextLine();

String line;

boolean found = false;

while ((line = reader.readLine()) != null) {

String[] parts = line.split(",");

if (parts[0].equalsIgnoreCase(name)) {

Patient patient = new Patient(parts[0], Integer.parseInt(parts[1]), parts[2], parts[3]);

patient.display();

found = true;

break;

}

}

if (!found) {

System.out.println("Patient record not found.");

}

reader.close();

} catch (IOException e) {

System.err.println("Error searching for patient record: " + e.getMessage());

}

}

// Method to display all patient records

public static void displayAllPatients() {

try {

BufferedReader reader = new BufferedReader(new FileReader(FILE\_NAME));

String line;

while ((line = reader.readLine()) != null) {

String[] parts = line.split(",");

Patient patient = new Patient(parts[0], Integer.parseInt(parts[1]), parts[2], parts[3]);

patient.display();

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

}

reader.close();

} catch(Exception e){

e.printStackTrace;

}

// Main method

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

int choice;

while (true) {

System.out.println("Hospital Management System");

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

System.out.println("2. Search Patient");

System.out.println("3. Display All Patients");

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

System.out.println("Enter your choice:");

choice = Integer.parseInt(scanner.nextLine());

switch (choice) {

case 1:

addPatient();

break;

case 2:

searchPatient();

break;

case 3:

displayAllPatients();

break;

case 4:

System.out.println("Thank you for using the Hospital Management System. Exiting...");

System.exit(0);

break;

default:

System.out.println("Invalid choice. Please try again.");

}

}

}