EXPERIMENT NO 8

package P2;

import java.util.Scanner;

interface Engineer {

int ENGINEER\_ID = 1;

void showEngineer();

}

interface Doctor {

int DOCTOR\_ID = 2;

void showDoctor();

}

public class ProfDB implements Engineer, Doctor {

private Scanner scanner = new Scanner(System.in);

// Doctor fields

private String doctorName;

private int doctorAge;

private String doctorSpecialization;

// Engineer fields

private String engineerName;

private int engineerAge;

private String engineerSpecialization;

// Method to read doctor details

public void readDoctorDetails() {

System.out.println("\n=== Enter Doctor Details ===");

System.out.print("Enter the name of doctor: ");

doctorName = scanner.nextLine();

System.out.print("Enter the age of doctor: ");

doctorAge = scanner.nextInt();

scanner.nextLine(); // consume newline

System.out.print("Enter the specialization of doctor: ");

doctorSpecialization = scanner.nextLine();

}

// Method to read engineer details

public void readEngineerDetails() {

System.out.println("\n=== Enter Engineer Details ===");

System.out.print("Enter the name of engineer: ");

engineerName = scanner.nextLine();

System.out.print("Enter the age of engineer: ");

engineerAge = scanner.nextInt();

scanner.nextLine(); // consume newline

System.out.print("Enter the specialization of engineer: ");

engineerSpecialization = scanner.nextLine();

}

// Implementation of Doctor interface method

@Override

public void showDoctor() {

System.out.println("\n=== Doctor Information ===");

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

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

System.out.println("ID: " + DOCTOR\_ID);

System.out.println("Specialization: " + doctorSpecialization);

}

// Implementation of Engineer interface method

@Override

public void showEngineer() {

System.out.println("\n=== Engineer Information ===");

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

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

System.out.println("ID: " + ENGINEER\_ID);

System.out.println("Specialization: " + engineerSpecialization);

}

public static void main(String[] args) {

ProfDB database = new ProfDB();

// Read data

database.readDoctorDetails();

database.readEngineerDetails();

// Display data

System.out.println("\n" + "=".repeat(50));

database.showDoctor();

database.showEngineer();

// Demonstrate interface references

System.out.println("\n" + "=".repeat(50));

System.out.println("Demonstrating Interface References:");

Doctor doc = database;

Engineer eng = database;

doc.showDoctor();

eng.showEngineer();

// Show constant values

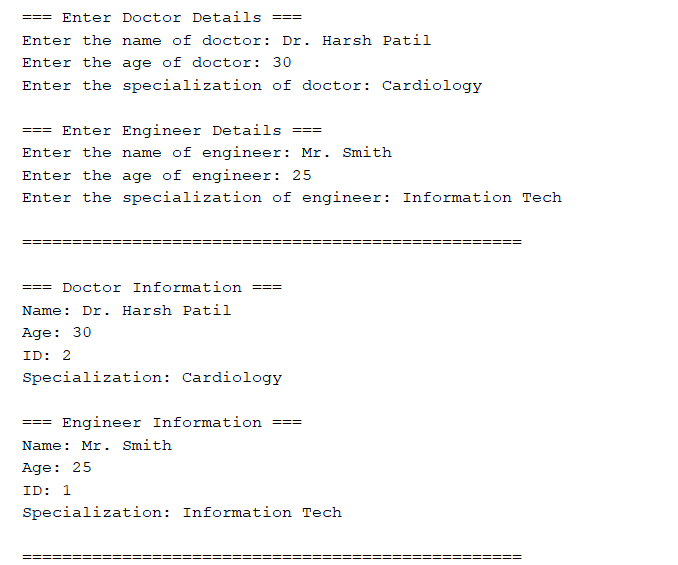
System.out.println("\nConstant Values:");

System.out.println("Doctor ID Constant: " + Doctor.DOCTOR\_ID);

System.out.println("Engineer ID Constant: " + Engineer.ENGINEER\_ID);

}

}

A screenshot of a computer

AI-generated content may be incorrect.