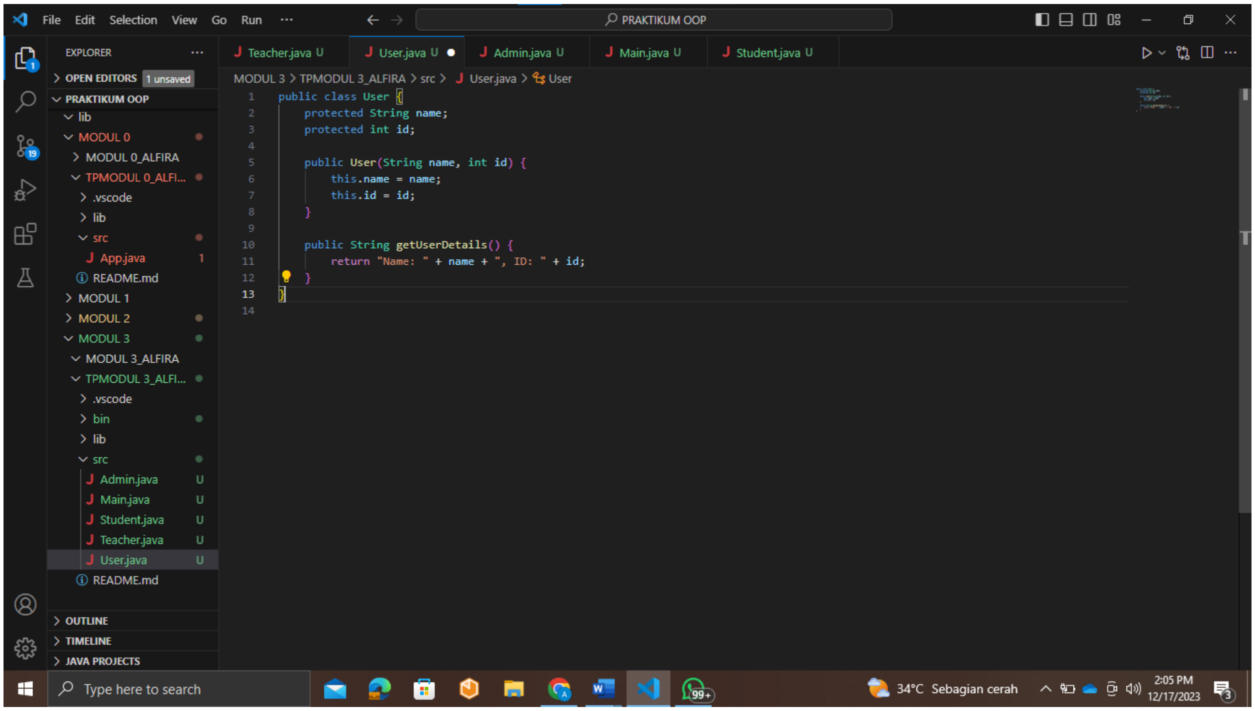
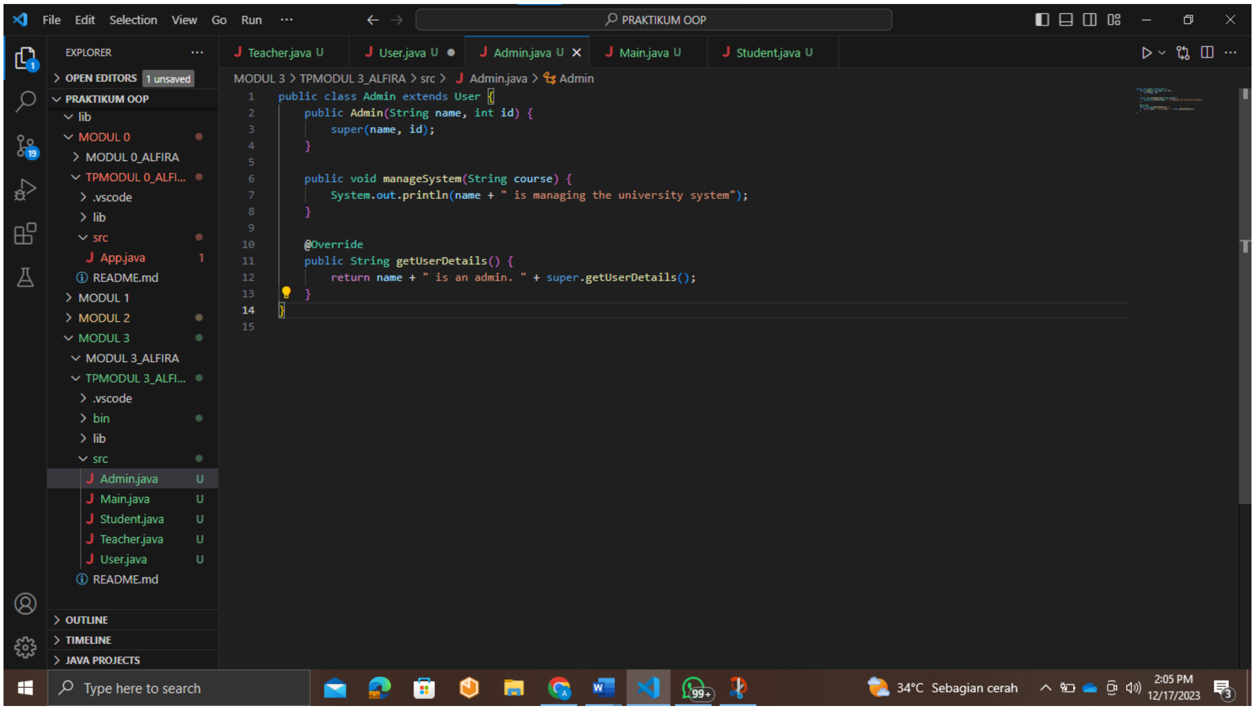
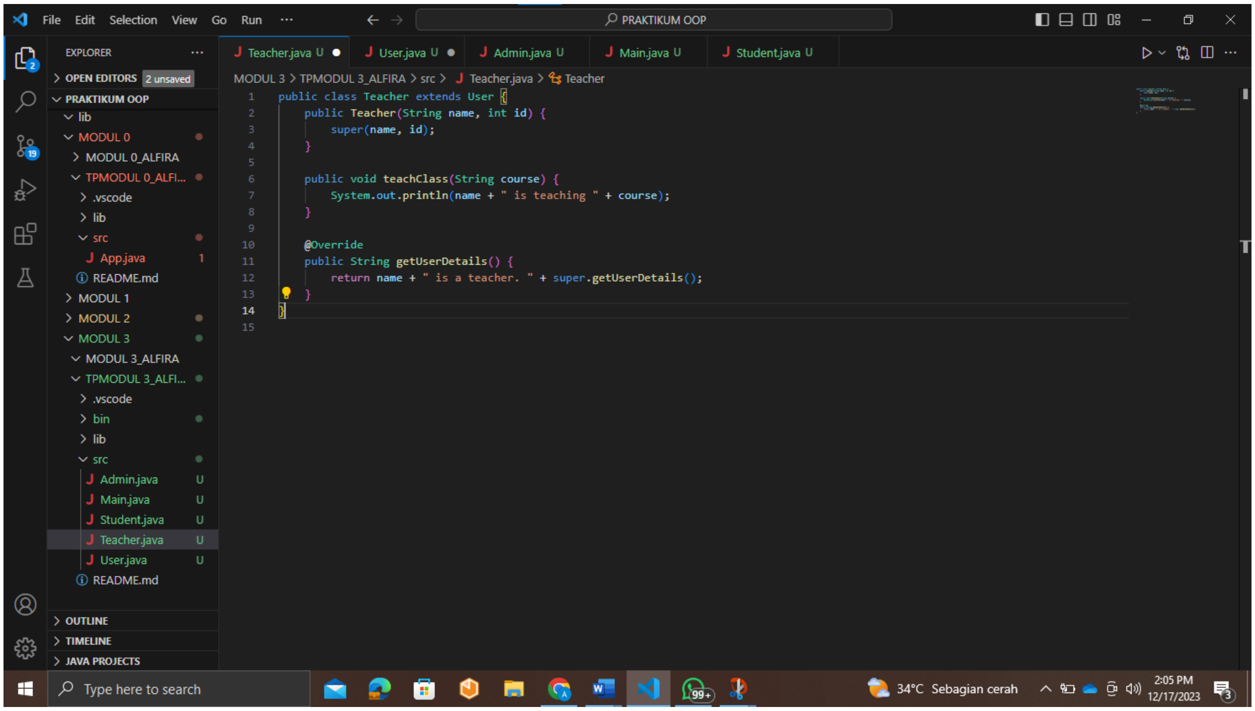


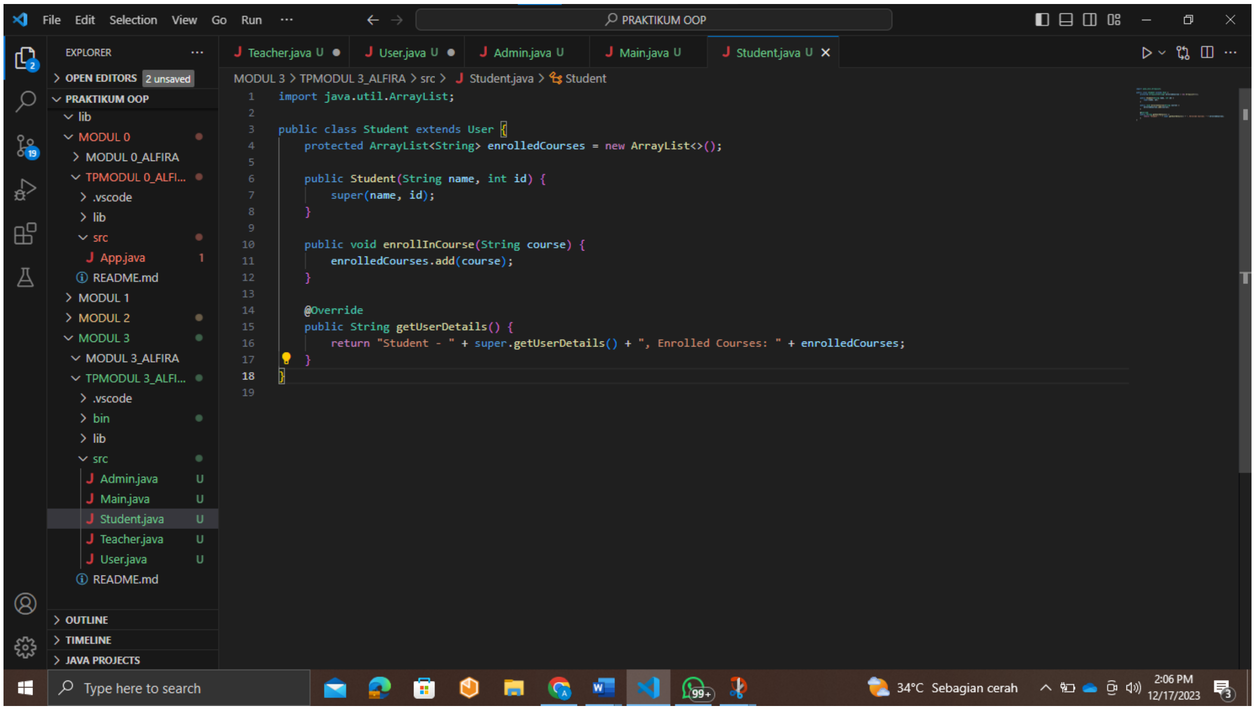
```java
public class User {
    protected String name;
    protected int id;

    public User(String name, int id) {
        this.name = name;
        this.id = id;
    }

    public String getUserDetails() {
        return "Name: " + name + ", ID: " + id;
    }
}
```



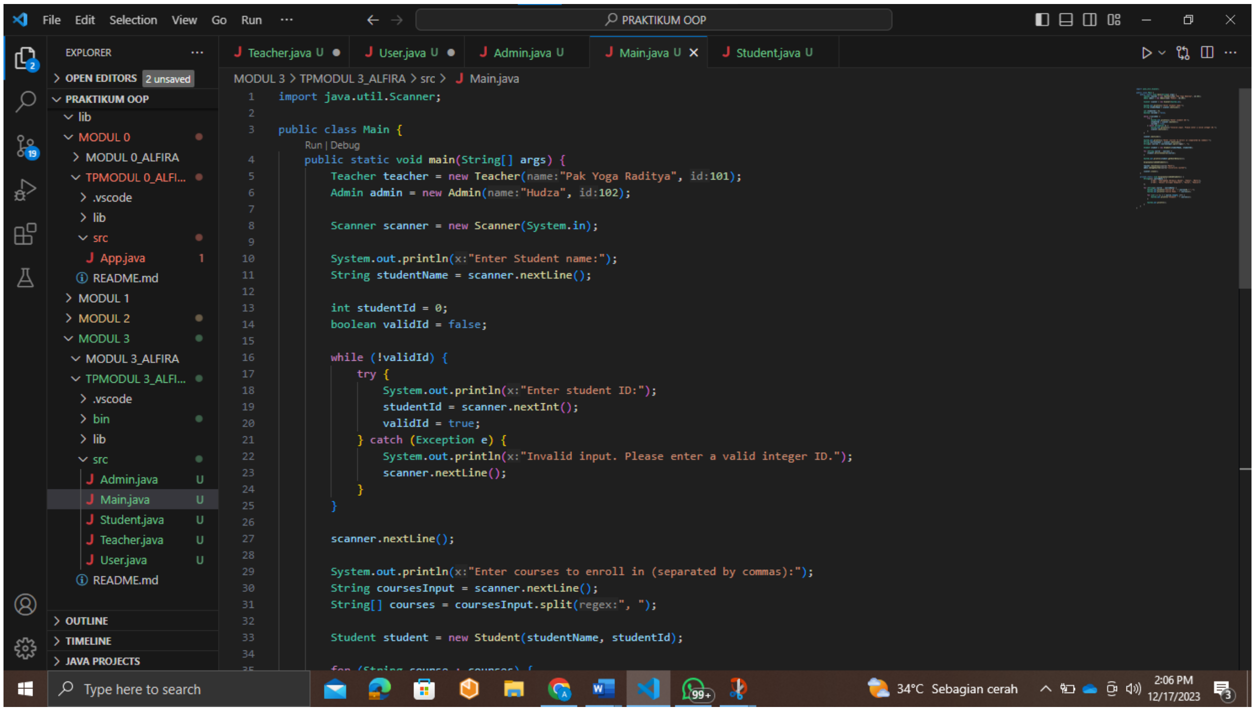
```java
public class Admin extends User {
    public Admin(String name, int id) {
        super(name, id);
    }

    public void manageSystem(String course) {
        System.out.println(name + " is managing the university system");
    }

    @Override
    public String getUserDetails() {
        return name + " is an admin. " + super.getUserDetails();
    }
}
```



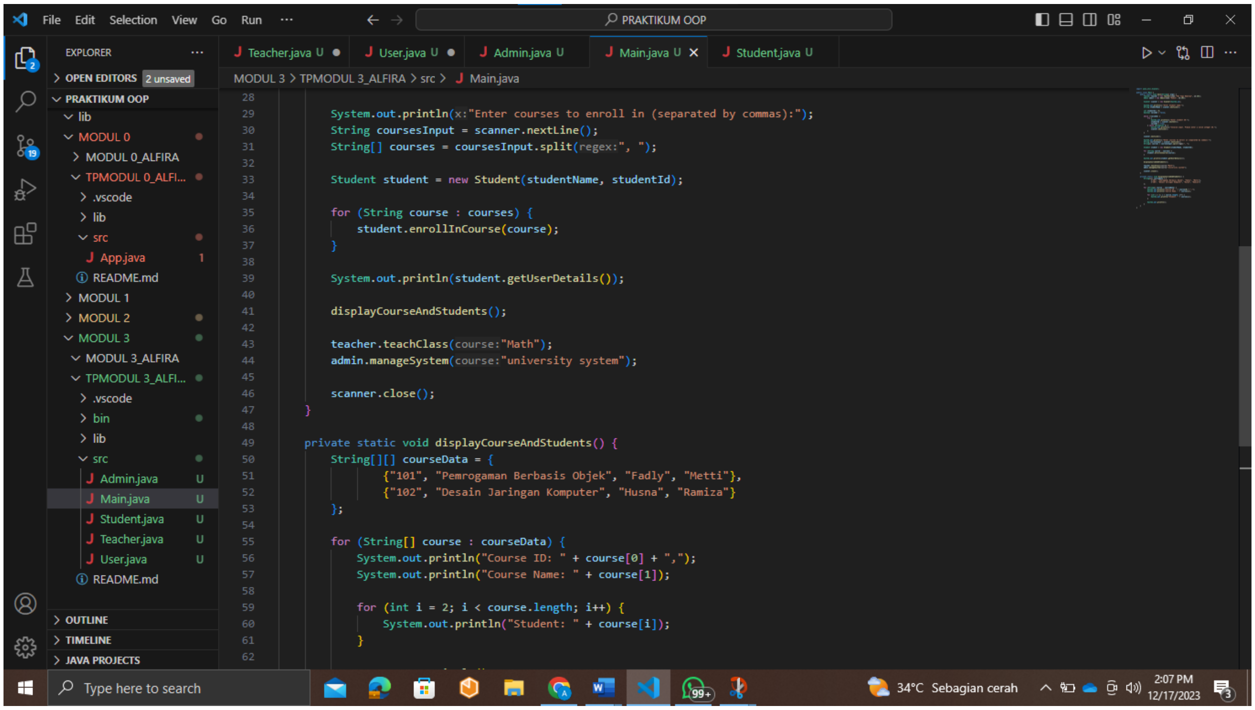
```java
public class Teacher extends User {
    public Teacher(String name, int id) {
        super(name, id);
    }

    public void teachClass(String course) {
        System.out.println(name + " is teaching " + course);
    }

    @Override
    public String getUserDetails() {
        return name + " is a teacher. " + super.getUserDetails();
    }
}
```



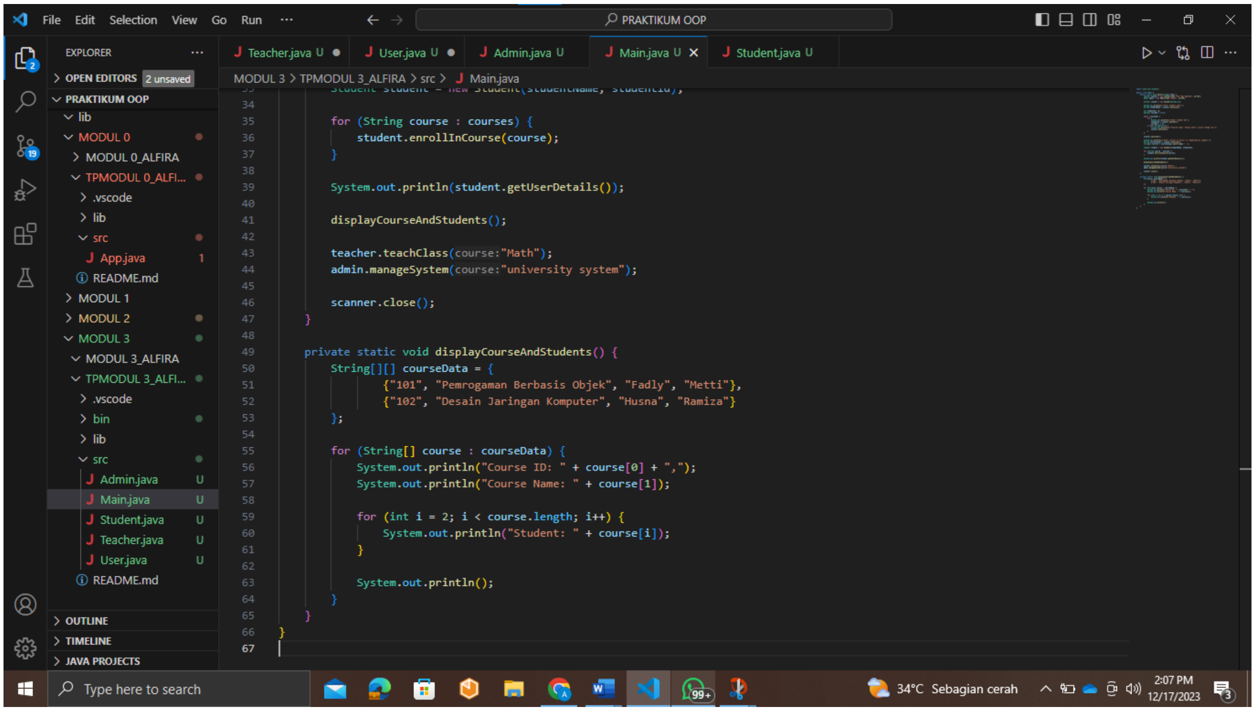
```java
import java.util.ArrayList;

public class Student extends User {
    protected ArrayList<String> enrolledCourses = new ArrayList<>();

    public Student(String name, int id) {
        super(name, id);
    }

    public void enrollInCourse(String course) {
        enrolledCourses.add(course);
    }

    @Override
    public String getUserDetails() {
        return "Student - " + super.getUserDetails() + ", Enrolled Courses: " + enrolledCourses;
    }
}
```



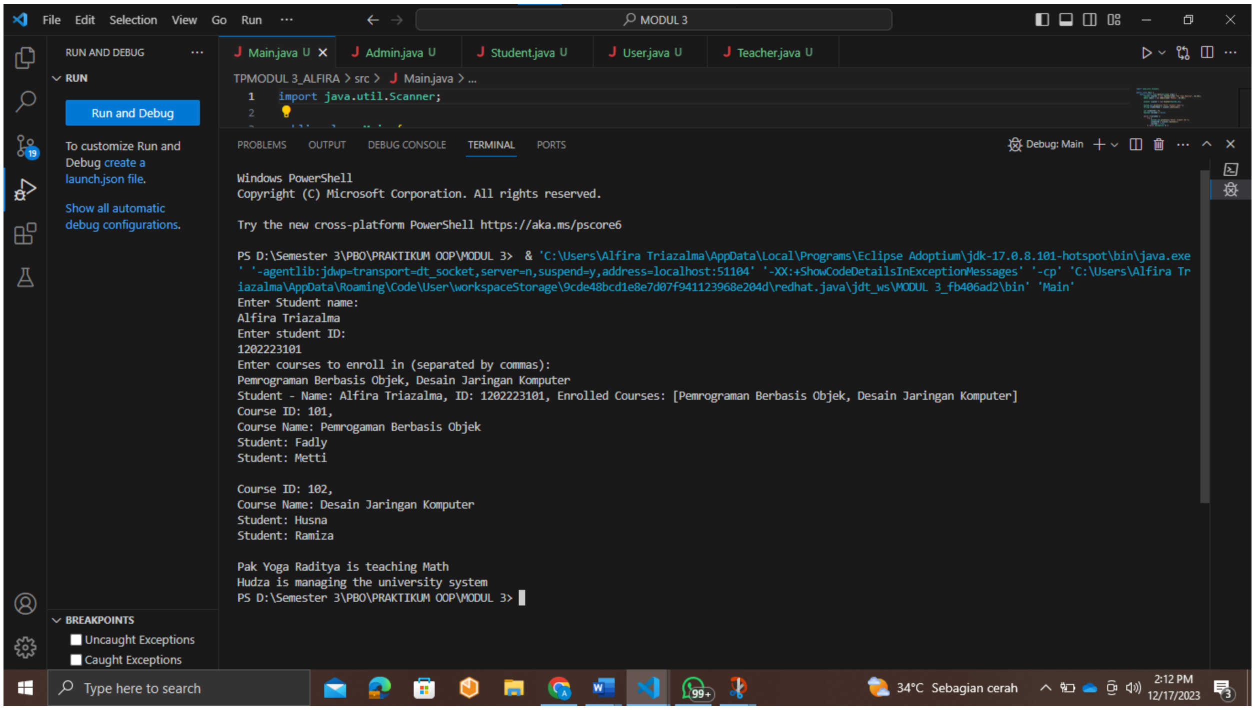
```java
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Teacher teacher = new Teacher(name:"Pak Yoga Raditya", id:101);
        Admin admin = new Admin(name:"Hudza", id:102);

        Scanner scanner = new Scanner(System.in);

        System.out.println(x:"Enter Student name:");
        String studentName = scanner.nextLine();

        int studentId = 0;
        boolean validId = false;

        while (!validId) {
            try {
                System.out.println(x:"Enter student ID:");
                studentId = scanner.nextInt();
                validId = true;
            } catch (Exception e) {
                System.out.println(x:"Invalid input. Please enter a valid integer ID.");
                scanner.nextLine();
            }
        }

        scanner.nextLine();

        System.out.println(x:"Enter courses to enroll in (separated by commas):");
        String coursesInput = scanner.nextLine();
        String[] courses = coursesInput.split(regex:", ");

        Student student = new Student(studentName, studentId);

        for (String course : courses) {
```



```java

        System.out.println(x:"Enter courses to enroll in (separated by commas):");
        String coursesInput = scanner.nextLine();
        String[] courses = coursesInput.split(regex:", ");

        Student student = new Student(studentName, studentId);

        for (String course : courses) {
            student.enrollInCourse(course);
        }

        System.out.println(student.getUserDetails());

        displayCourseAndStudents();

        teacher.teachClass(course:"Math");
        admin.manageSystem(course:"university system");

        scanner.close();
    }

    private static void displayCourseAndStudents() {
        String[][] courseData = {
                {"101", "Pemrogaman Berbasis Objek", "Fadly", "Metti"},
                {"102", "Desain Jaringan Komputer", "Husna", "Ramiza"}
        };

        for (String[] course : courseData) {
            System.out.println("Course ID: " + course[0] + ",");
            System.out.println("Course Name: " + course[1]);

            for (int i = 2; i < course.length; i++) {
                System.out.println("Student: " + course[i]);
            }

```



```
            Student student = new Student(studentName, studentId);

            for (String course : courses) {
                student.enrollInCourse(course);
            }

            System.out.println(student.getUserDetails());

            displayCourseAndStudents();

            teacher.teachClass(course:"Math");
            admin.manageSystem(course:"university system");

            scanner.close();
        }

        private static void displayCourseAndStudents() {
            String[][] courseData = {
                    {"101", "Pemrogaman Berbasis Objek", "Fadly", "Metti"},
                    {"102", "Desain Jaringan Komputer", "Husna", "Ramiza"}
            };

            for (String[] course : courseData) {
                System.out.println("Course ID: " + course[0] + ",");
                System.out.println("Course Name: " + course[1]);

                for (int i = 2; i < course.length; i++) {
                    System.out.println("Student: " + course[i]);
                }

                System.out.println();
            }
        }
    }
```



```
import java.util.Scanner;
```

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\Semester 3\PBO\PRAKTIKUM OOP\MODUL 3>  & 'C:\Users\Alfira Triazalma\AppData\Local\Programs\Eclipse Adoptium\jdk-17.0.8.101-hotspot\bin\java.exe
' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:51104' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Alfira Tr
iazalma\AppData\Roaming\Code\User\workspaceStorage\9cde48bcd1e8e7d07f941123968e204d\redhat.java\jdt_ws\MODUL 3_fb406ad2\bin' 'Main'
Enter Student name:
Alfira Triazalma
Enter student ID:
1202223101
Enter courses to enroll in (separated by commas):
Pemrograman Berbasis Objek, Desain Jaringan Komputer
Student - Name: Alfira Triazalma, ID: 1202223101, Enrolled Courses: [Pemrograman Berbasis Objek, Desain Jaringan Komputer]
Course ID: 101,
Course Name: Pemrogaman Berbasis Objek
Student: Fadly
Student: Metti

Course ID: 102,
Course Name: Desain Jaringan Komputer
Student: Husna
Student: Ramiza

Pak Yoga Raditya is teaching Math
Hudza is managing the university system
PS D:\Semester 3\PBO\PRAKTIKUM OOP\MODUL 3> 
```