

**Assignment 3**

Design a University Course Registration System (10 marks). Use any OOP Language of your choice, such as C++ or Python.

**Objective:**

Implement an object-oriented data model to simulate a Course Registration System, where students can register for courses, view their enrolled courses, and update personal or course information.

**Assignment Requirements:****Entities (Classes):**

Students must define the following classes:

**1.Student**

- Attributes: roll\_no, name, department
- Methods: registerCourse(), viewCourses(), updateProfile()

**2.Course**

- Attributes: course\_code, course\_name, credit\_hours
- Methods: displayInfo()

**3.Enrollment**

- Attributes: roll\_no, course\_code
- Acts as a bridge class (like a junction table in DB)

# Tasks:

## **1. Design the Object Model:**

1. Define classes and their attributes/methods.
2. Create relationships (e.g., one student → many courses).

## **2. Simulate the Database with Arrays:**

1. Allow students to input 3–5 students and 3–5 courses.
2. Use arrays to store objects.

## **3. Implement Operations:**

1. Register a student for a course
2. Display all courses a student is enrolled in
3. Update student details (e.g., change name or department)
4. Search for students or courses by ID