

Problem Statement:

Design and implement a simple **Student Course Record System** using **C++ OOP** concepts.

You are required to manage basic details of students and their course enrollment using:

- A **structure** to hold course details.
- A **class** to manage student records.
- An **enum** to represent the student's academic status.
- **Objects** of the class to perform data operations.

Detailed Requirements:

1. Enum Definition

Create an **enum** named `Status` with the following possible values:

```
enum Status { Active, Graduated, Dropped };
```

2. Structure Definition

Define a **structure** named `Course` with the following members:

```
struct Course {  
    string courseCode;  
    string courseTitle;  
    int creditHours;  
};
```

3. Class Definition

Create a **class** named `Student` that includes:

```
class Student {  
private:  
    int studentID;  
    string studentName;  
    Status studentStatus;    // Use the enum  
    Course enrolledCourse;  // Use the structure  
  
public:  
    void inputStudentData();  
    void displayStudentData();  
};
```

4. Member Function Details

1. **inputStudentData():**

- Take input for:
 - Student ID
 - Student Name
 - Student Status (ask user to choose 0 for Active, 1 for Graduated, 2 for Dropped)
 - Course Code, Course Title, and Credit Hours

2. **displayStudentData():**

- Display all details in a formatted style.
- Convert enum status into readable text (e.g., “Active”, “Graduated”, “Dropped”).

5. Main Function

In the `main()` function:

1. Create **an array of objects** (e.g., `Student s[3];`).
2. Input and display data for multiple students.
3. Optionally, display how many students are currently “Active”.

Expected Sample Output:

Enter data for student 1:

ID: 101

Name: Ali Khan

Status (0-Active, 1-Graduated, 2-Dropped): 0

Course Code: CS101

Course Title: Object-Oriented Programming

Credit Hours: 3

Enter data for student 2:

ID: 102

Name: Sara Ahmed

Status (0-Active, 1-Graduated, 2-Dropped): 1

Course Code: CS202

Course Title: Data Structures

Credit Hours: 4

----- STUDENT RECORDS -----

ID: 101

Name: Ali Khan

Status: Active

Course: CS101 - Object-Oriented Programming (3 Credit Hours)

ID: 102

Name: Sara Ahmed

Status: Graduated

Course: CS202 - Data Structures (4 Credit Hours)

Total Active Students: 1