

# **General Requirement**

## **Introduction:**

- Within the framework of a student enrollment management system, this document describes the needs for a database system.
- Enrollment procedures, departments, courses, and student administration will all be managed effectively thanks to this system.

## **Business Rules:**

1. student may sign up for more than one course.
2. There can be more than one student registered in a course.
3. A department must be connected to a course.
4. A department may provide more than one course.
5. A unique student ID is required for every student.
6. A unique course ID is required for every course.
7. A unique department ID is required for every department.
8. Only courses given by their connected department are available for enrollment by students.
9. Only if there are seats available in a course can a student enroll.
10. Enrollment in courses must be limited to a minimum and maximum.
11. Only those with permissions can add, edit, or remove records from the database.

## **List of Possible Nouns and Actions:**

### **Student:**

#### ➤ **Nouns:**

1. Student
2. Student ID
3. Name
4. Email
5. Department ID

#### ➤ **Actions and verbs:**

1. Add a new student
2. Edit student details
3. Delete a student
4. View student information
5. Enroll in a course
6. Withdraw from a course

## **Enrollment:**

#### ➤ **Nouns:**

1. Enrollment

2. Student ID
3. Course ID
4. dept\_id
5. Enrollment Date

➤ **Actions:**

1. Enroll a student in a course
2. Withdraw a student from a course
3. View enrollment details

**Course:**

➤ **Nouns:**

1. Course
2. Course ID
3. Name
4. Credit Hours
5. Department ID
6. Capacity

➤ **Actions:**

1. Add a new course
2. Edit course details
3. Delete a course
4. View course information
5. Check available seats

**Department:**

➤ **Nouns:**

1. Department
2. Department ID
3. Name

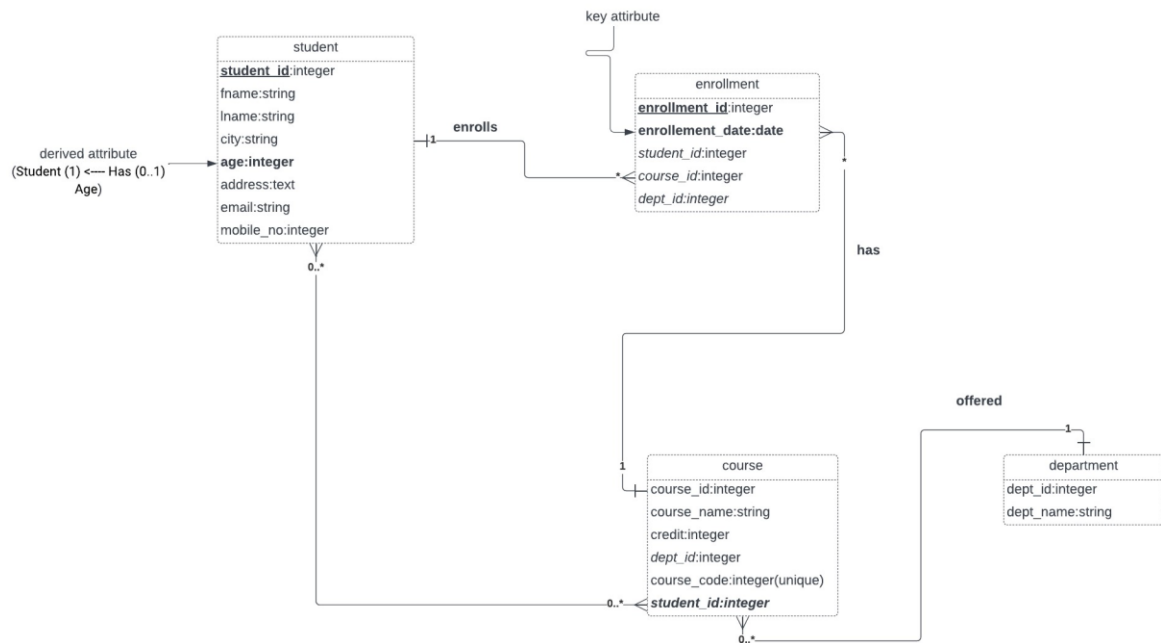
➤ **Actions:**

1. Add a new department
2. Edit department details
3. Delete a department
4. View department information

➤ **Prospective Improvements**

- ✓ Integration for online enrollment and course registration through a student portal or web-based platform.
- ✓ The system's expansion to include features for gradekeeping, faculty management, and course evaluation.

## UML Class Diagram:



## ERD as an Embedded Data with Aggregation

