## DBMS Micro Project -FakeLMS

Group Name: CS301P-2023-14 IMT2021067 Brij Desai IMT2021066 Yukta Rajapur IMT2021018 Vineet Priyedarshi

**Domain: Education Course Management System** 

3 main objects - Student, Professor and Course interact with each other.

## **USE CASES**

1. Usecase Name: View all the courses a student can enroll in a semester

**Description:** A student can enroll for a course they are eligible for. From the tables of all courses, we will query the eligible courses based on the year of the student using a where clause.

Actors: Students interact with the course table.

Normal flow: Query successful, set of all eligible courses are displayed to the user.

**Exception flow:** None

Done by: Vineet

2. Usecase Name: Student enrolls for a course

**Description:** From the list of eligible courses, a student can add their name to the 'Enrolled' table using their credentials and course code.

Actors: Students interact with the course table.

**Normal flow:** Adds a record corresponding to the student and the course into the 'Enrolled' table.

**Exception flow:** If the student is not eligible for the course or the course does not exist, query must not execute and a message should be displayed to the user saying 'Invalid or ineligible course'

Done by: Vineet

3. Usecase Name: Professor adds a new course.

**Description:** Professor adds a new course to the list of courses

**Actors:** Professor interacts with 'Courses' and 'Offers' tables

**Normal flow:** A record corresponding to the new course is added to the 'Courses' table. A corresponding record is added to the 'Offers' table too.

**Exception flow:** If the course already exists, the query should not execute and an error message should be displayed that says 'Course already exists'.

Done by: Yukta

**4. Usecase Name:** View all the courses a professor offers

**Description:** From the table of all courses, display only those courses offered by specified professors using where or join clauses.

**Actors:** Student

Normal flow: Courses offered by a particular professor are displayed

**Exception flow:** If the professor doesn't exist, display an error message saying 'This professor doesn't exist'.

Done by: Yukta

**5.** Use Case Name: Total students in a course offered by the professor.

**Description:** Number of students enrolled in a course and the course is offered by which professor.

**Actors:** Professor interacts with the course table

Normal flow: List of all students enrolled in that course is displayed.

**Exception flow:** If the course or professor does not exist in the DB, display error message saying 'Course or professor unavailable'

Done by: Brij

**6. Usecase Name:** Generate student's transcript by student/professor.

**Description:** From all the courses a student has taken and completed, all the grades along with respective course name and grade are displayed.

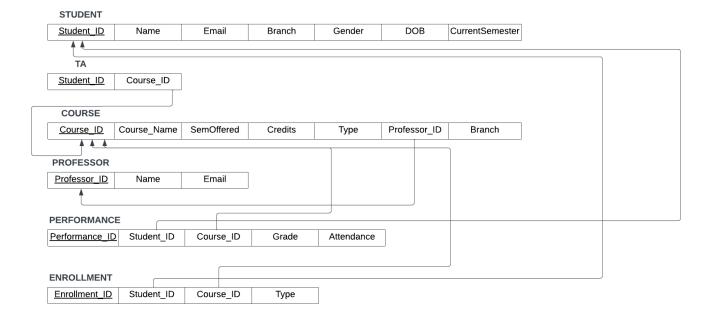
Actors: Student or Professor

Normal flow: A list of courses and its grades are displayed.

**Exception flow:** If a professor tries to generate the transcript of a non-existent student then display a message saying 'Student not found'. No exception if a student tries to generate their own transcript.

Done by: Brij

## **SCHEMA**



## **UML CLASS DIAGRAM**

