
DBMS Micro Project - FakeLMS

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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.

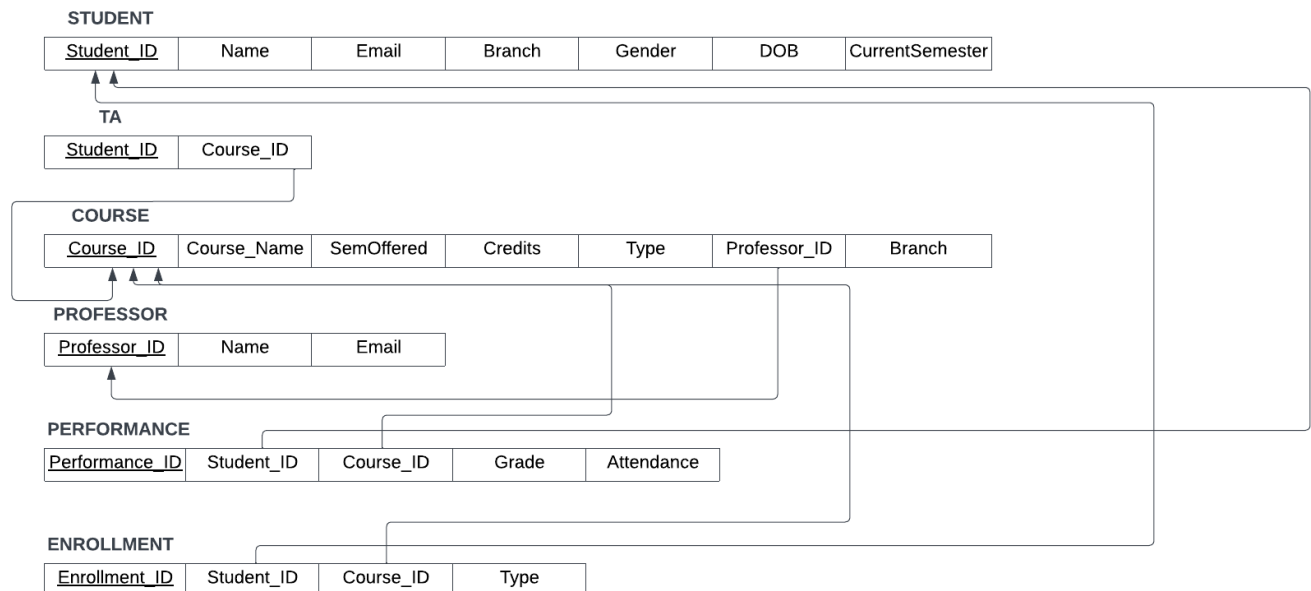
Actors: Student or Professor

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

