AUC Catelog

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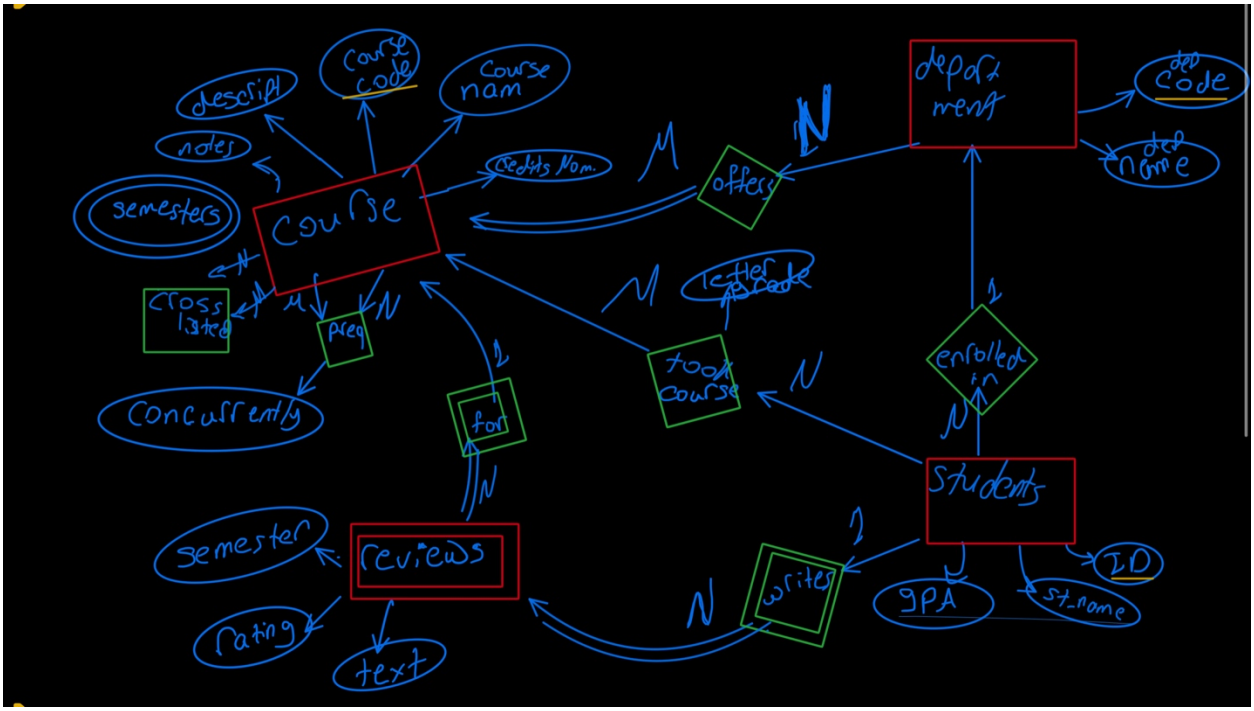
1) Entity-Relationship Diagram of the AUC Catalog Database



NOTES:

- I made the relation between Department and Course M to N, as there are some courses offered by many departments as Calc 3 offered in all Engineering departments.
- I made reviews as a week entity as it can not defined by itself, it have to be defined by the course and the student (that is why I thought of making it as a relation between the student and the course entity, but I did not as I feel it should be a separate entity which has its own attributes)
- I made the Cross listed and the preq courses as relations between courses and itself, so when we want to know the preq courses for a specific course we can search by the course code (EX: CSCE 2022)
- Students can exist without department (undeclared students)
- Courses cannot exist without a department
- Reviews cannot exist without a course and a student
- Students can exist without courses (EX:gap year)

2) Relational Model for your system

- Department (dep_name, dep_code)
- Course (course_name, course_code, credits_nom, description, notes)
- CourseDepartment (course_code ,dep_code)
  FK: course_code, dep_code
- courseSemester (course_code, semester)
  FK: course_code
- CoursePreq (course_code, Preq_course_code, concurrently)
  FK: course_code, Preq_course_code
- Students (st_name, ID, dep_code, GPA)
  FK: dep_code
- Took_course (ID, course_code, letter_grade)
  FK: ID, course_code
- Review (course_code, ID, semester, rating, Text)
  FK: course_code, ID
- Crosslisted(course_code, cross_course_code)
  FK: course_code, cross_ course_code