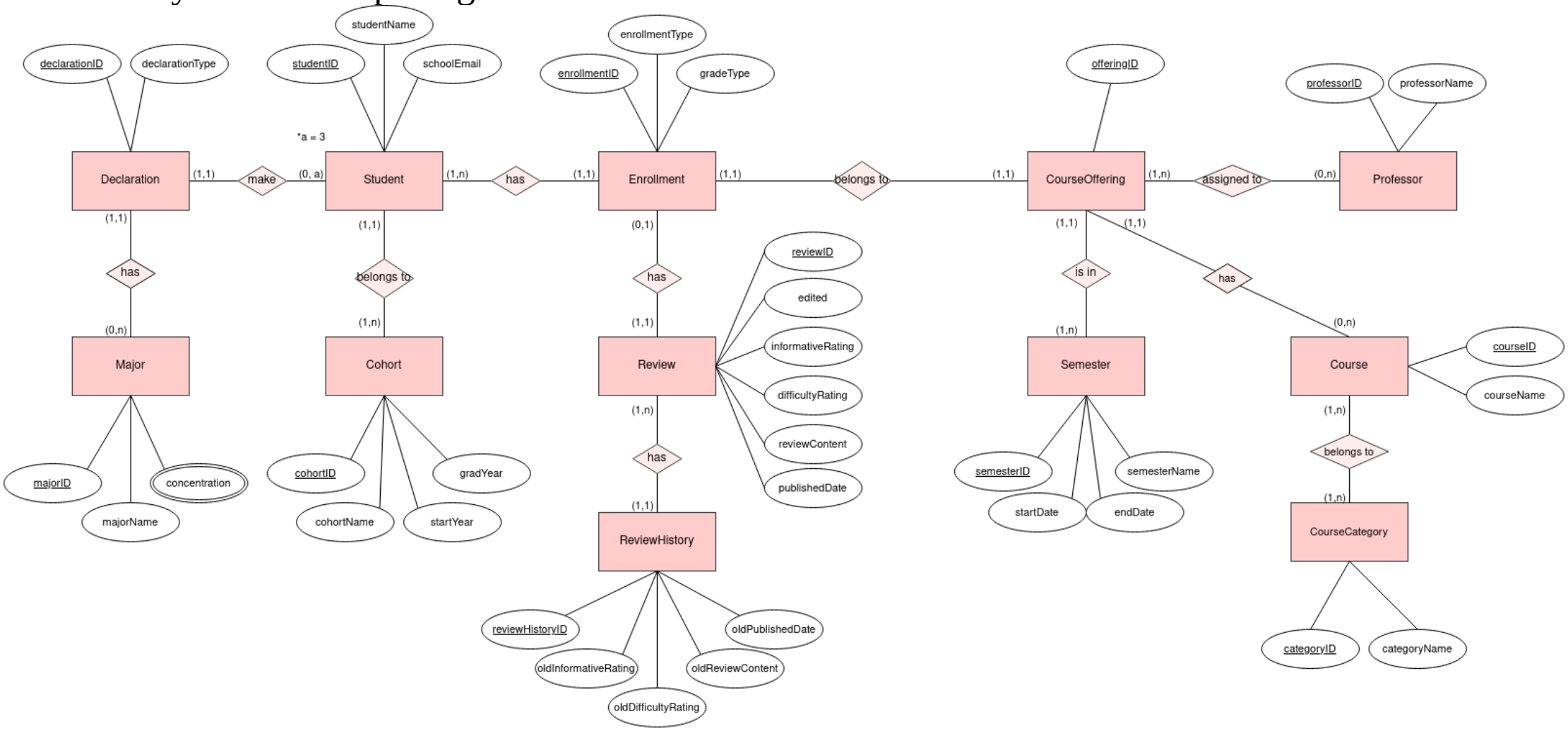
Database requirements:

An application needs a database to store course reviews of students in a university. The specifications are as follow:

- Each cohort specifies a generation of students. A cohort has its ID, name, start year, and graduate year.
- Each major offered at the university specifies a concentrated field of study that the university offers. A major has its ID, name, and concentration. Concentration attribute can have multiple values; for example, CS major can have Machine Learning and Software Engineering concentrations.
- Each declaration takes studentID and majorID, and if the student declares the major as a major, then declarationType is 1. If a student declares it as a minor, then declarationType is 0. A student makes a declaration in order to formally register their major.
- Each student has their ID, name, cohortID, declaration ID, and school email.
- Each course category has its ID, and name.
- Each course has its ID, name, and belongs to zero or many course categories.
- Each professor has their ID and name.
- Each semester has its ID, name, start date, and end date.
- Each enrollment has its ID, student ID, course offering ID, enrollment type, and grade type. If a student enrolls in the course, repeats the course, or audit, then the values of enrollment type is "enrolled", "RP", or "audit", respectively. If a student audits or takes the course as Pass/No Pass, then grade type is 0, otherwise it is 1.
- Each review has its ID, enrollment ID, informative rating (on a scale of 5), difficulty rating (on a scale of 5), published date, and review content stored as a paragraph.
- Each course offering has its ID, semesterID, course ID, and professor ID.
- Each review history entry stores a version of the review. Each time a review is edited, every attribute of the old rating is stored.
- A student belongs to a cohort. A cohort can have many students.
- A student can make up to 3 declarations in their entire 4 years of study: 1 major, 1 major & 1 minor, 2 majors, 1 major & 2 minors. Other combination of enrollment (ie. 0 major and 1 minor, or 0 major and 2 minors, or 3 majors, are all prohibited).
- A student can have multiple enrollments. An enrollment only belongs to a single student.
- A course offering is a kind of schedule. A semester has multiple course offerings, but a course offerling belongs to one and only one semester. A course offering belongs to a single course, but a course can have multiple offerings (in the same semester like a core course, or in different semesters).
- A student can register for a course by making an enrollment. A student can have multiple enrollments, an enrollment belongs to one and only one student. Each enrollment is made for a single course offering. A student cannot enroll in more than 5 courses per semester, but they can audit as many as they want.
- An enrollment has at most one review, while a review belongs to one and only one enrollment. A review can be edited, thus having multiple versions. If a review has 2 versions or more, the review is marked as "edited" for readers to know.

Entity-Relationship Diagram:



Relation schema:

STUDENT(studentID, cohortID, declarationID, studentName, schoolEmail)
COHORT(cohortID, cohortName, startYear, endYear)
MAJOR(majorID, majorName, concentration)
DECLARATION(declarationID, majorID, studentID, declarationType)
COURSE_CATEGORY(categoryID, categoryName)
COURSE(courseID, categoryID, courseName)
PROFESSOR(professorID, professorName)
SEMESTER(semesterID, semesterName, startDate, endDate)
COURSE_OFFERING(offeringID, semesterID, courseID, professorID)
ENROLLMENT(enrollmentID, studentID, offeringID, enrollmentType, gradeType)
REVIEW(reviewID, enrollmentID, informativeRating, difficultyRating, reviewContent, publishedDate)
REVIEW_HISTORY(reviewHistoryID, reviewID, oldInformativeRating, oldDifficultyRating, oldReviewContent, oldPublishedDate)

*Note: primary keys are underlined with solid line, foreign keys are underlined with dashed line.