In-class Exercise 3

- Question:
- Create three tables using SQL: Students, Courses, and Enrolled. In table definitions, you must enforce the following constraints:
  - Students: sid, sname, major, year_of_study, gpa
  - Courses: cid, cname, enroll_count, lecturer
  - Enrolled: sid, cid, score

  - A student can be enrolled into a course only if he/she exists in Students table.
  - If a student is removed from Students table, his/her enrollment record(s) should also be deleted from Enrolled table.
  - Only the courses available in Courses table can be enrolled.

  - gpa must be between 0 and 4.
  - score must be between 0 and 100 if not NULL.

- Answer:
  - CREATE TABLE Students
    (sid CHAR(8),
    sname CHAR(20),
    major CHAR(10),
    year_of_study INTEGER,
    gpa REAL,
    PRIMARY KEY ( ),
    CHECK ( ));
  - CREATE TABLE Courses
    (cid CHAR(8),
    cname CHAR(20),
    enroll_count INTEGER,
    lecturer CHAR(20),
    PRIMARY KEY ( ));
  - CREATE TABLE Enrolled
    (sid CHAR(8),
    cid CHAR(8),
    score REAL,
    PRIMARY KEY ( ),
    FOREIGN KEY (sid) REFERENCES Students
    ON DELETE ,
    FOREIGN KEY (cid) REFERENCES Courses,
    CHECK ( );