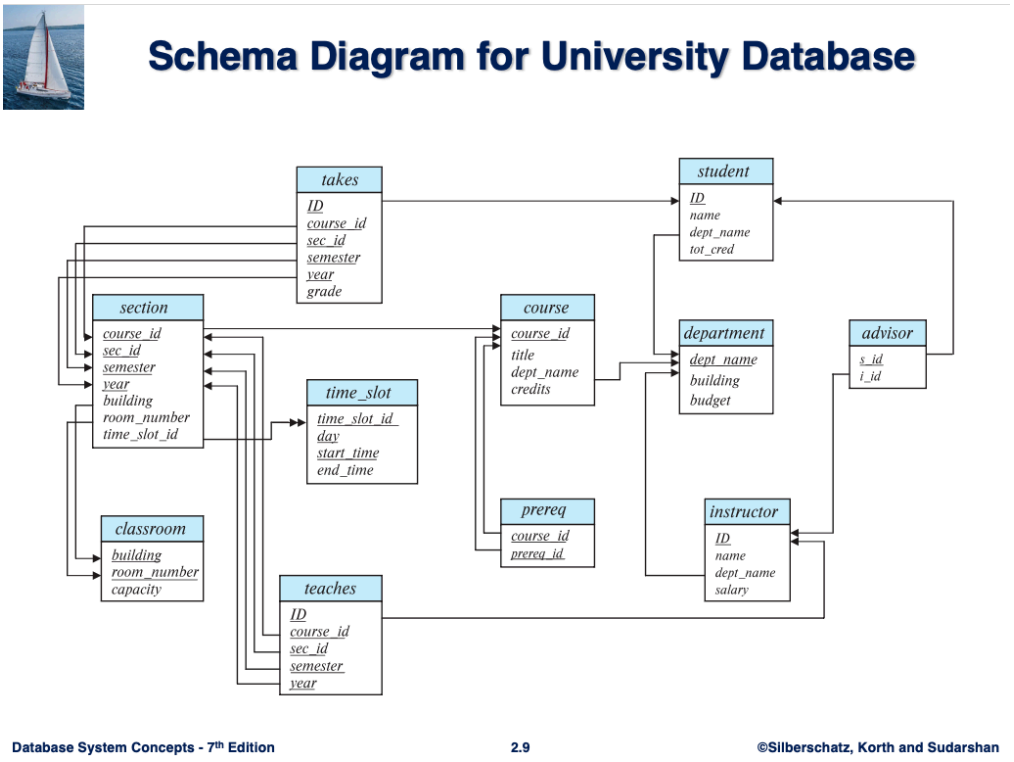
SQL Basics Practice Problems

Consider this schema from the textbook for a university database:



Write the following queries in SQL, using this schema. You can test your answers at

01. Find the titles of courses in the Comp. Sci. department that have 3 credits.
02. Find the IDs of all students who were taught by an instructor named Einstein; make sure there are no duplicates in the result.
03. Find the ID and name of each student who has taken at least one Comp. Sci. course; make sure there are no duplicate names in the result.
04. Find the course id, section id, and building for each section of a Biology course.
05. Output instructor names sorted by the ratio of their salary to their department's budget (in ascending order).
06. Output instructor names and buildings for each building an instructor has taught in. Include instructor names who have not taught any classes (the building name should be NULL in this case).
07. Find the names of those departments whose budget is higher than that of Astronomy. List them in alphabetic order.1
08. Output instructor names and buildings for each building an instructor has taught in. Include instructor names who have not taught any classes (the building name should be NULL in this case).
09. For each student who has retaken a course at least twice (i.e., the student has taken the course at least three times), show the course ID and the student's ID. Please display your results in order of course ID and do not display duplicate rows.

010. Find the names of Biology students who have taken at least 3 Accounting courses

011. Find the rank and name of the 10 students who earned the most A grades (A-, A, A+). Use alphabetical order by name to break ties. Note: the browser SQLite does not support window functions.7