

TU München, Fakultät für Informatik Lehrstuhl III: Datenbanksysteme Michael Jungmair



Database System Concepts for Non-Computer Scientist - WiSe 25/26

http://db.in.tum.de/teaching/ws2526/DBSandere/?lang=en

Sheet 04

Exercise 1

Formulate the following queries on the known university schema in SQL. Output all results without duplicates.

- (a) Find the *students* who know Sokrates from *lecture(s)*.
- (b) Find the *students* who attend *lectures* that Fichte also attends.
- (c) Find the assistants of professors who have taught the student Carnap e.g., as potential supervisors for his bachelor's thesis.
- (d) Give the names of the *professors* whom Theophrastos knows from *lectures*.
- (e) Which *lectures* are attended by *students* in the bachelor's program (1st–6th semester)? Give the titles of these *lectures*.

Exercise 2

Answer the following questions on our university database using SQL:

- a) Find all foundation lectures (lectures that don't depend on another lecture).
- b) "Lonely Students" Are there any students that are attending a lecture on their own?
- c) "Industrial Students" List all students that are attending all lectures. Hint: 1 2

¹The task can be rephrased as: List all students, where there is no lecture with no attend record of the student.

²Alternatively, you could also try counting how many lectures a student is attending.