



Database System Concepts for Non-Computer Scientist – WiSe 20/21

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<http://db.in.tum.de/teaching/ws2021/DBSandere/?lang=en>

Sheet 07

Exercise 1

Write the following queries in **SQL** on the known university schema:

- How many students are there?
- Find all students that are in the third semester.
- Figure out if there is a lecture with more than five *weeklyhours*.
- Print out a list with all professor names and avoid duplicates.
- Find students whose name start and end with the letter 'a'.

Exercise 2

Answer the following questions on our university database using SQL:

- List the name and person number of the *Assistants* of *Professor Sokrates*.
- Which *Professors* does Fichte know from attending their *Lectures*.
- Which *Lectures* are attended by *Students* in the 1.-4. semester? Print only the title of the lectures.
- Find all *Students* that attend at least one *Lecture* together with Fichte.

Exercise 3

Answer the following questions on our university database using SQL:

- Figure out the average semester of the all students.
- What is the average semester of students that are not attending any lecture?
- Determine the average semester of students that attend at least one lecture of *Sokrates*.
- Calculate how many lectures students are attending on average. Students who do not attend any lecture should be reflected in the result as well. If you get stuck, see hints: ¹ ²
- Calculate how many lectures each student is attending. Students who do not attend any lecture should be included in the result as well (*attend_count* = 0).

¹Remember that the from clause is optional ('select 1.0 / 2.0;' is a valid query).

²Remember that you can use sub-queries in the select clause.