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Database System Concepts for Non-Computer Scientist - WiSe 24/25 Alice Rey (rey@in.tum.de)

http://db.in.tum.de/teaching/ws2425/DBS and ere/?lang=en

Sheet 05

Exercise 1

Answer the following questions on our university database using SQL:

- a) Figure out the average semester of all students.
- b) What is the average semester of students that are not attending any lecture?
- c) Determine the average semester of students that attend at least one lecture of Sokrates.
- d) 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 $_2$
- e) Calculate how many lectures each student is attending. Students who do not attend any lecture should be included in the result as well $(attend_count = 0)$.

Exercise 2

Answer the following questions on our university database using SQL:

- a) Each assistants works in a certain area. Figure out how many assistants work in each area.
- b) Determine the number of areas a professor is interested in. A professor is interested in an area if one of their assistants works in this area. Professors who do not have an assistant do not need to be included in the result.
- c) Include the professors without assistants in the result.

 $^{^2\}mathrm{Remember}$ that you can use sub-queries in the select clause.