TU München, Fakultät für Informatik
Lehrstuhl III: Datenbanksysteme
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Database System Concepts for Non-Computer Scientist - WiSe 23/24

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Sheet 09

Exercise 1

Answer the following questions on our university database using SQL:

a) Calculate how many lectures each student is attending. Students who do not attend any lecture should be included in the result as well ($attend\_count = 0$) (use outer joins).

b) Figure out how many students each professor knows: A professor knows students from one of their lectures or via a test they have supervised. Include professors not knowing any students and use outer joins. Hint: [1]

Exercise 2

Find those students who have attended all lectures that they wrote a test in.

Exercise 3

„Busy Students“: Find all students that have more weekly hours in total than the average student. Try to simplify the query using the with construct. (Also consider students that do not attend any lecture).

Exercise 4

Create SQL DML statements for the following tasks:

a) “Professor meeting”: Move all professors to room 419.

b) “Lazy students”: Remove all students from the database who have ever failed a test (grade worse than 4.0).

[1] Remember that SQL has set operations.