



Exercise for *Database System Concepts for Non-Computer Scientist* im
WiSe 19/20

Alexander van Renen (renen@in.tum.de)
<http://db.in.tum.de/teaching/ws1920/DBSandere/?lang=en>

Sheet 09

Exercise 1

Write a query that determines the kind of degree a student is pursuing. In our database, we assume that this can be deduced from the student's semester in the following way: A student who has not reached her 7th semester yet is still considered a "bachelor student". Once in the 7th semester, she should be categorized as a "master student". Starting in the 11th semester, we label her as a "phd student".

Exercise 2

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). This time, use outer joins.
- b) Figure out how many students are attending each lecture. Lectures which are not attended by any student should be included in the result as well (*attend_count* = 0). Again, use outer joins.

Exercise 3

„Busy Students“: Write a SQL query to find all students that have more weekly hours in total than the average student has. Also consider students that do not attend any lecture.

Exercise 4

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