



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

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<http://db.in.tum.de/teaching/ws1920/DBSandere/?lang=en>

Sheet 10

Exercise 1

Write a SQL statement to create a view that gives an overview of the difficulty of each lecture. The difficulty of a lecture is defined as the sum of the weekly hours of that lecture and its direct predecessors. In our example instantiation of the university schema, the following query on your view should yield the result (only partially shown):

```
select * from LectureDifficulties;
```

lectureNr	title	difficulty
5216	Bioethik	6
4630	Die 3 Kritiken	4
...

Exercise 2

„Busy Students (again)“: In the previous exercise sheet we wrote a SQL query to find all students that have more weekly hours in total than the average student. Now, in this exercise, try to simplify the query using the with construct. (As before, also consider students that do not attend any lecture).

Exercise 3

ExamPoints			
StudName	ExerciseId	PossiblePoints	Score
Bond	1	10	4
Bond	2	10	10
Bond	3	11	4
Maier	1	10	4
Maier	2	10	2
Maier	3	11	3

Create a **view** in SQL for the *ExamResult*, which should look like the following for our example instantiation:

ExamResult				
Name	PossiblePoints	Score	Ratio	Passed
Bond	31	18	0,580645	yes
Maier	31	9	0,290323	no

An exam should be graded as passed if at least 50% of the possible points were scored.

[Bonus] Create the underlying table for *ExamPoints* and think about what the **primary key** should be.