



Exercise Sheet 4: Query Processing (until Tuesday 30.05.2014)

Exercises will be discussed on **Friday** on week after the respective lecture was given. The handouts are optional and do not have to be handed in. They only serve as optional preparation for the oral exams at the end of the semester.

Exercise 1 – Query processing

- a. What are the main steps that need to be processed in order to answer a user's query?
- b. Explain the following terms:
 - Operator tree
 - Evaluation plan
 - Evaluation primitives

Exercise 2 – Query optimization

- a. What needs to be optimized in query optimization?
- b. Why is it necessary to translate SQL into relational algebra to perform a query optimization?
- c. In what cases can a simple table scan be better than an index scan?
- d. How can you perform a sort on a relation that does not fit into the main memory?