



## Exercise Sheet I: System Architecture

### Exercise 1

- a. Briefly define the following terms:
  - Database, DBMS, Schema, System Catalog, View, Transaction
- b. Briefly discuss the main characteristics of DBMS and how they differ from plain file systems.

### Exercise 2

- a. Explain the difference between Internal-, Conceptual- and External schemas used in relational database architectures.
- b. Explain the difference between Logical- and Physical Data Independence
- c. Explain briefly the tasks handled by:
  - Storage Manager, Query Processor, and Transaction Manager

### Exercise 3

- a. What are the requirements for comparing different DBMS?
- b. Name an example and give a short description.