DATABASE DESIGN II

How can you efficiently organize and process large volumes of complex data while keeping up performance and scalability?

This second database course gives insights in state-of-the-art of the database field, with emphasize on techniques for scalable storage and retrieval of big data quantities:

- introduction to procedural SQL,
- introduction to active databases,
- scalable data representation through indexes and key-value stores
- NoSQL, object-oriented, and object-relational databases,
- relational calculus and physical relational algebra
- database query optimization,
- scalable database loading
- extensible databases and user-defined indexes for non-conventional data such as numerical and spatial data,
- distributed and parallel database systems,
- the mapreduce operator, and
- data stream management systems.

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Prerequisites: Database design I. Computer Programming, second course, or equivalent

Goal: You will be able to use advanced database design and implementation techniques found in state-of-the-art database systems.