Modern Data Architectures

Contents of this course

- Database APIs (in Python)
- Advanced Relational Database Performance:
  - Indexes
  - Materialised views
  - Partitoning
  - In-memory databases
- Big Data
  - Intro : what is big data
  - NoSQL databases: schemaless, no transactions, …
  - MongoDB: document store
  - Neo4J: graph database
- Cloud Databases
- Guest Lecture

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Evaluation

- First + second session:
    - 100 % written exam on PC
    - open book
    - on campus

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TOOLS

- Download from Academic Software:
  - MS SQL Server Standard or Developer Edition (not SQL Server Express!)
    + SQL Server Management Studio (Windows users) or Azure Data Studio (Mac users, download from microsoft.com)
  - Visual Studio Code
  - Python
  - MongoDB
  - Studio3T

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