Hello

• Prof. Dr. Heiko Paulheim
• Chair of Data Science
• Research Interests:
  – Semantic Web and Linked Open Data
  – Data Mining with Linked Open Data
  – Ontology Matching
  – Data Quality and Data Cleaning
  – Outlier Detection
• Room: B6 – C1.09
• Consultation: by appointment
• Heiko will teach the lectures
Hello

• Sven Hertling
• Ph.D. Student
• Research Interests:
  – Semantic Technologies / Semantic Web
  – Linked Data
  – Knowledge Graphs
• Room: B6 – C1.03
• Consultation: by appointment
• Sven will teach the exercises
Introduction and Course Outline

• Administration
• Introduction
  – Concept and (brief) history of relational databases
  – Introduction to the relational model
Course Organization

- Lecture
  - Database concepts
  - Theory of relational algebra, relational modeling, query processing
  - Introduction to SQL
- Exercise
  - Creating example databases
  - Hands-on experience
- Final exam
Course Contents and Schedule

• Today: Introduction
• 21.+28.2.: SQL
• 7.3.: ER Models
• 14.3.: Normal Forms
• 21.3.: Indexing and Hashing
• Easter Break
• 11.4.: Database Architectures
• 18.4.: Query Processing
• 25.4.: Query Optimization
• 2.5.: Transactions and Concurrency
• 9.5.: Recovery
• 16.5.: Advanced Datatypes, Application Development
• 23.5.: Application Development & Architectures

you’ll get a larger exercise assignment here
Course Organization

• Lecture Webpage: Slides, Announcements, Web Links
  – hint: look at version tags!

• Additional Material

• Time and Location
  – Lecture: Wednesday, 12.00 – 13.30, Room B6 A1.04
Material and Sources

• This course (and the majority of the slides) are based on the book
  – Silberschatz et al.: Database System Concepts

• Several copies are available in the library

• Additional material online
  – www.db-book.com
Questions?