

Database Management Systems (DBMS)

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Lec 0: Course plan

Prerequisites

- Elementary programming languages
- Data structures concepts
- Basics of computer organization

Credits and hours

- Course No.: **CS261**
- Number of credits: **3**
- Number of classes: **30** (each class is of 1.30 Hrs)

Topics to be covered

1. Purpose and evolution of database management systems
2. Relational model of data
3. Formal relational languages (relational algebra/calculus)
4. SQL, Introduction to database design, Advanced SQL (procedures / functions / triggers)
5. Database design and normal forms, Database application development
6. Storage structures and indexing/hashing
7. Query processing and optimization
8. Transactions, Lock-based concurrency control

Books

Database System Concepts (7th Edition)

Authors

- Avi Silberschatz
- Henry F. Korth
- S. Sudarshan

Publisher

- McGraw-Hill

- **ISBN 9780078022159**

Fundamentals of Database Systems (7th Edition)

Authors

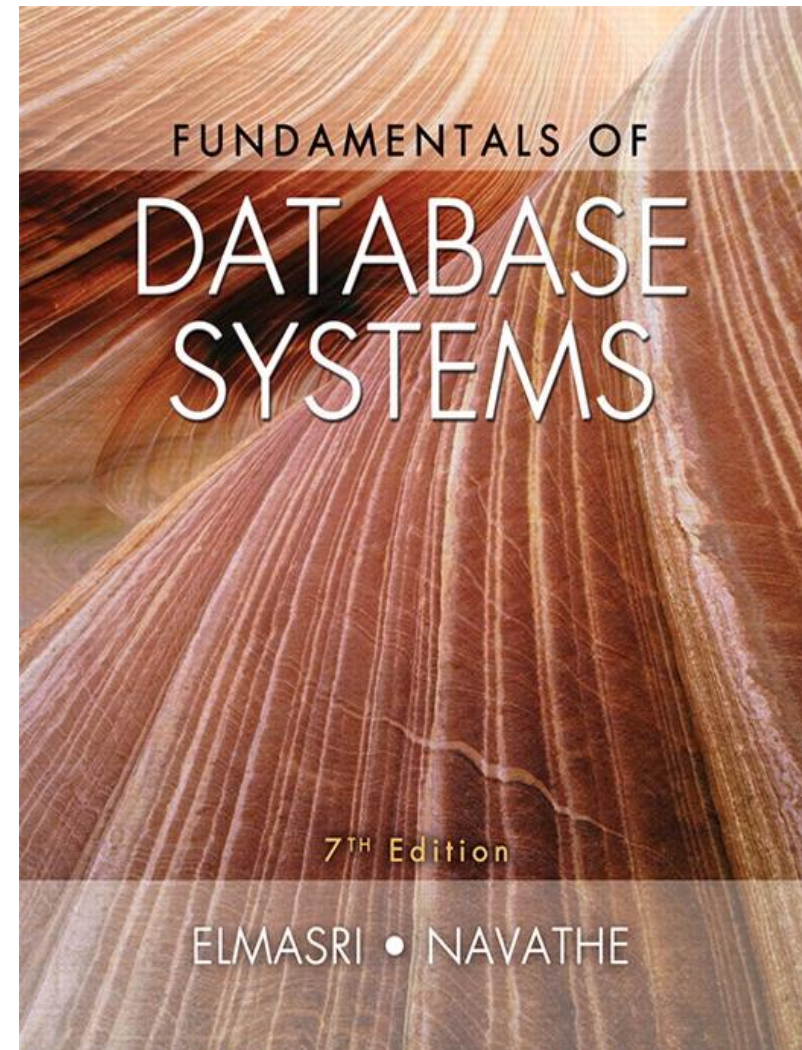
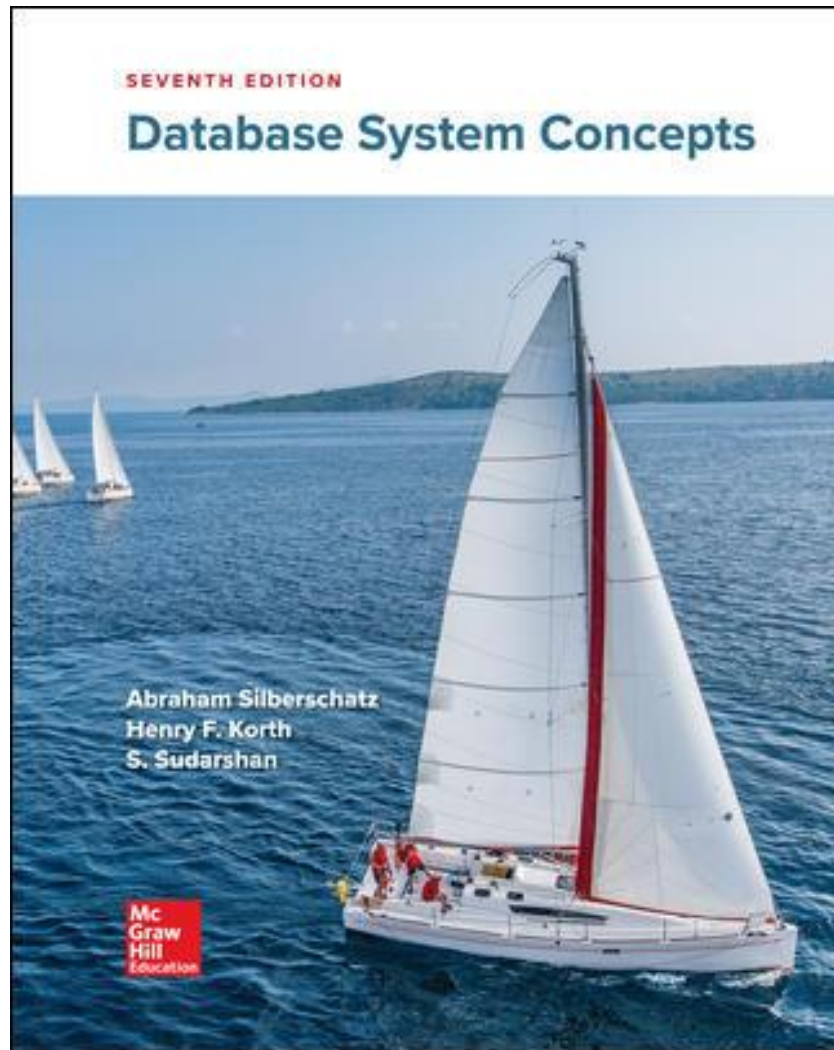
- Ramez Elmasri
- Shamkant B. Navathe

Publisher

- Pearson

- **ISBN 9780133970777**

Books



Teaching modes

- A few topics will be
 - given presentation
 - explained directly with the aid of tools
 - recorded and shared with you
- Please do not hesitate to ask questions: you can write me

Note: I would be using the material/figures/examples/PPTs, which are available from the prescribed books or internet source, to save time and make my teaching effective. However, a proper citation may not be mentioned wherever is needed

Evaluation process

- Assignments and/or Viva-voice
 - Assignment 1
 - Assignment 2
 - Assignment 3/Viva-voce
 - Assignment 4/Viva-voce