Databases (COSE 371-01)

- Instructor
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    - 우정정보관 404호 / Wed 14:00-15:00

- TF's
  - 김남일, 김형빈, 조유정
    - Database Laboratory, Korea University Graduate School
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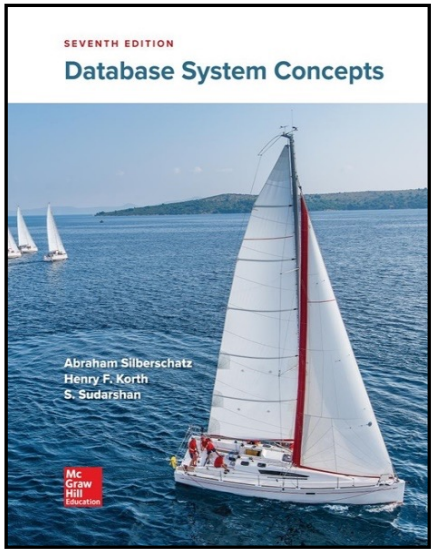
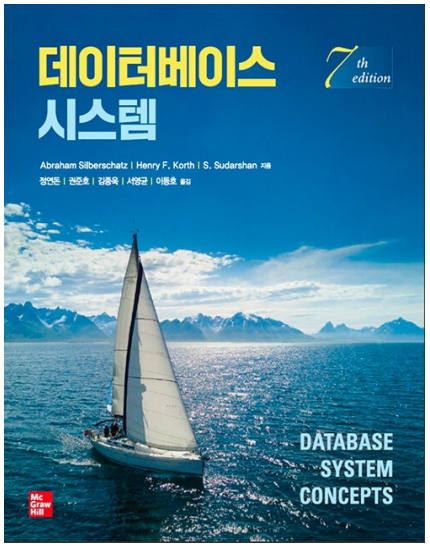
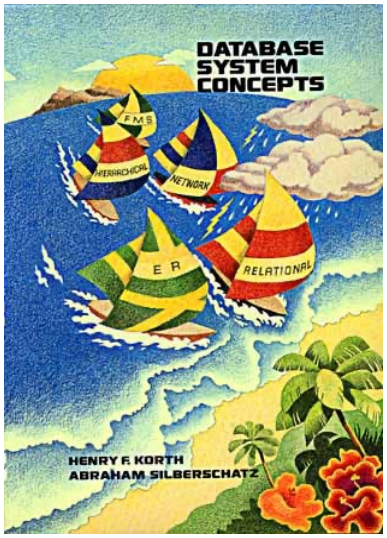
Databases (COSE 371-01)

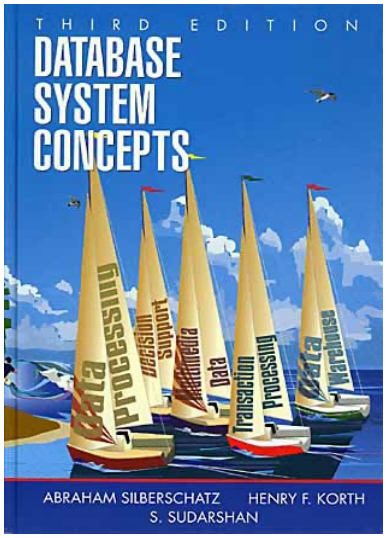
- Textbook
  - ***Database System Concepts*** (7th Edition)
  - McGraw-Hill, 2020
  - A. Silberschatz, H. Korth, and S. Sudarshan
  - Lecture materials are available on http://www.db-book.com

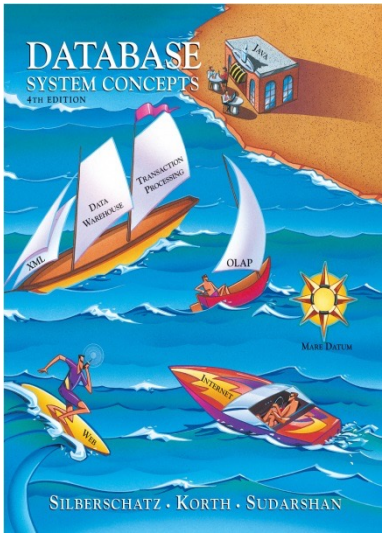


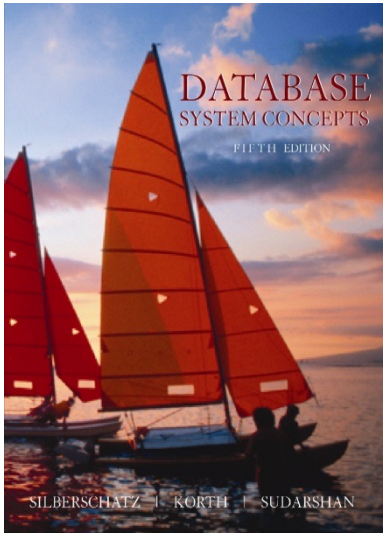


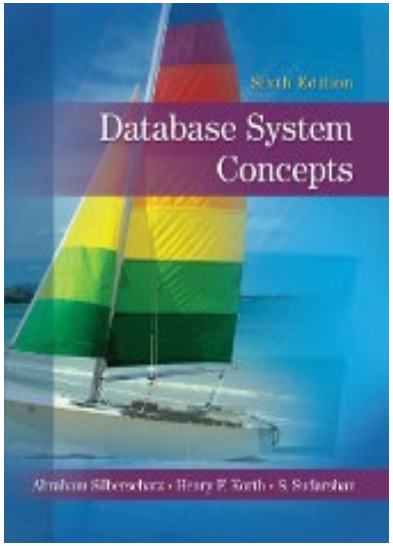
The *Sailboat* Book

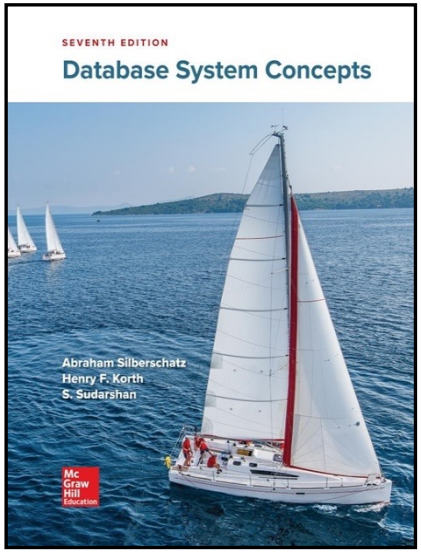












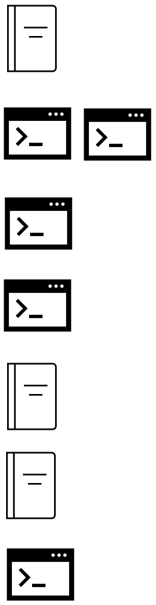
Databases (COSE 371-01)

- Chapters of the book (7th edition)

1. Introduction
2. Introduction to the Relational Model
3. Introduction to SQL
4. Intermediate SQL
5. Advanced SQL
6. Database Design using the ER Model
7. Relational Database Design
8. Complex Data Types
9. Application Development
10. Big Data
11. Data Analytics
12. Physical Storage Systems
13. Data Storage Structures
14. Indexing
15. Query Processing
16. Query Optimization
17. Transactions
18. Concurrency Control
19. Recovery System
20. Database System Architectures
21. Parallel and Distributed Storage
22. Parallel and Distributed Query Processing
23. Parallel and Distributed Transaction Processing
24. Advanced Indexing Techniques
25. Advanced Application Development
26. Blockchain Databases

Databases (COSE 371-01)

- Weekly schedule (tentative)
  - Introduction to Databases (1 week)
  - Introduction to Relational Model (and Relational Algebra) (1.5 weeks)
  - Introduction to SQL (3 weeks)
  - Intermediate SQL (1.5 weeks)
  - Database Application Development using *django* (1 week)
  - Database Design using ER Model (and Reduction to Relational Model) (2 weeks)
  - Relational Database Design via Normalization (2 weeks)
  - Data Analytics – Intro. to OLAP, DW, and DM (1.5 weeks)



Databases (COSE 371-01)

- Grading Policy (tentative)
  - 2 Exams : 60 %
  - H/W (including Lab.): 30%
  - Class Activities (including quizzes) : 10%
  - Grades
    - 등급별 비율 (대략)
    - 10~15%, 10~15%, 10~15%, 10~15%, 10~20%, 10~20%, …

Databases (COSE 371-01)

- Rules in this course
  - **No cheatings**
    - HW, Exams, Quizzes, etc.
  - No delays on HW submission
  - No claims on the final grade
  - No tardy students (→ minus points w.r.t. class activities)

Databases (COSE 371-01)

- HW
  - Exercises, SQL coding using DBMSs etc.
    - PostgreSQL
  - DB application coding
    - Python ?
  - (mostly) On-line submission of HWs
    - kulms.korea.ac.kr
- Quiz !
  - Without announcements, we will have quizzes. (→ included when evaluating grades)
  - Read the textbook in advance for the upcoming lectures

Databases (COSE 371-01)

- Notice
  - Prepare your own laptops for HW and Practices
    - Install *PostgreSQL* on your computers
      - An installation guide will be uploaded on kulms.korea.ac.kr

- Do you have any questions
  - on this class ?
  - on me ?

Databases (COSE 371-01)

- Reading assignments (앞으로는 별도 공지 없음)
  - Ch 1. Introduction
  - Ch 2. Introduction to the Relational Model

  - 수업 전 교재/강의 자료 읽어보기 필수 ~