Databases – Syllabus

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Overview

- Instructor
  - Prof. Jaeyong Choi(Andrew) (최재용)
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  - Office hours: Thur. 10AM or by appointment
  - Resources: Cyber Campus

Overview

- Instructor

Purdue Univ.

North Carolina State university

KAIST

LG Electronics CTO Division

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Gachon Univ.

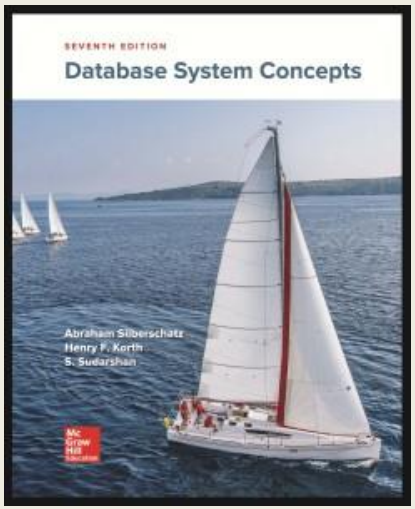
Department of AI-Software

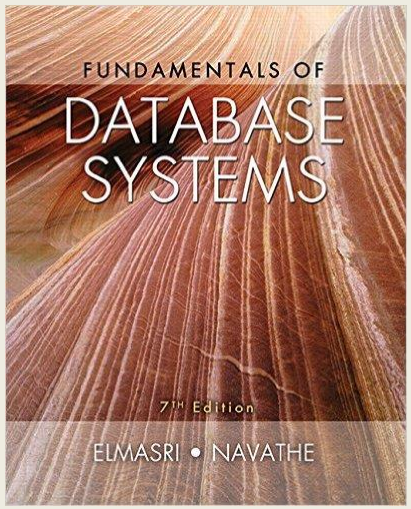
Overview

- Lab.
  - Intelligent Robotics and Autonomous System Control Lab
  - https://sites.google.com/view/irasc

Resources

- References
  - Abraham Silberschatz, Henry Korth, and S. Sudarshan, *Database System Concepts*, McGraw-Hill Education, 7th Edition, March 2019.
  - Ramez Elmasri & Shamkant B. Navathe, *Fundamentals of Database Systems*, Pearson, 7th Edition, June 2015.





Grading Policy

- Grading
  - Attendance & Attitude: 20%
  - Assignment, Quiz, Project: 20%
  - Mid-term Exam: 30%
  - Final Exam: 30% (cumulative exam)

- Lectures
  - In-Class Lecture : 6 weeks
  - MOOC Lecture : 5 weeks
  - Active learning : 2 weeks
  - Mid-term, Final : 2 weeks

Course Schedule

Week	Topic	Chapter	강의 방법
1	Introduction to DBMS, Relational Model	1	
2	Relational Algebra : - Concept of Key - Relational algebra operators - Relational algebra expressions	2	MOOC (추석)
3	Introduction to SQL 1	3	
4	Advanced SQL : - Advanced expression of SQL - Nested SQL queries	4, 5	MOOC
5	Entity/Relationship Model	6	
6	Relational Database Design	7	MOOC (8)
7	Storage and File Structure	12, 13	MOOC(10)
8	Mid-term Exam		

Course Schedule

Week	Topic	Chapter	강의 방법
9	Indexing and Hashing	14, 24	
10	Query processing	15	MOOC (12)
11	Transaction	17	MOOC
12	Object-Based Databases	29	Active Learning
13	XML	30	Active Learning
14	JSON	30	
15	Final Exam		

Tips & Rules

- This is a "Learn & Practice" class
  - You will have in-class practices
  - You will also have assignments, quizzes, and projects

- Ask questions in class
  - It is boring to just sit and listen. Be active!
  - Asking questions means you are interested. Let others share your interest.
  - Do not be afraid to ask *stupid* questions. You are students!

Tips & Rules

- Keep informed!
  - ☞ http://cyber.gachon.ac.kr/ → 데이터베이스 및 실습
    - Class information
    - Lecture notes
    - Supplemental materials
    - Assignments
    - Assignments submissions
    - Important notices

Tips & Rules

- "F" policy
  - "Not attending" 1/4 or more classes
  - Not attending or cheating in exams and quizzes
- Late penalty
  - Late assignment and report will not be graded for credit
- "Not attending" also includes:
  - Leaving a class in the middle
  - Chatting and using the mobile phone in class
  - Any other actions that may disturb the class
  - Usual exceptions: COVID-19, emergency, etc.

Acknowledgements

- The slides in this class are the modifications of those obtained from http://www.db-book.com/ and from Prof. Noh.
- The original slides are copyright by Silberschatz, Korth, and Sudarshan, 2010.

THANK YOU