

Review for Final Exam

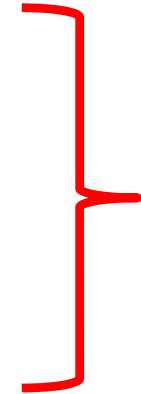
Final Exam

- Date: 2010-04-20, Tuesday
- Time: 12:00 ~ 15:00
- Location: SWH (Saywell Hall) 10041
(<http://www.sfu.ca/about/maps.html>)
- Closed book exam.
- But, you are allowed to bring one page (both two sides can be used) of cheat sheet.
- It weights **40%** for your final grades!

Materials

- Transaction Management

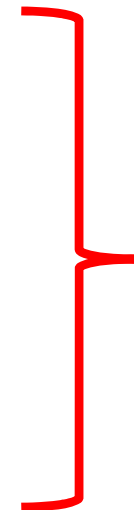
- Data Storage and Query Answering



About 40%

- Query Processing and Advanced Queries

- Data Mining and Information Retrieval



About 60%

Topics to be Covered (1)

- **All** the materials reviewed for the midterm exam!

Topics to be Covered (2)

- Query Processing
 - Parse tree
 - Logical query plan
 - Algebraic laws
 - How to improve logical query plans
 - Physical query plan
 - How to estimate the size of operations
 - Three types of algorithms
 - sorting-based, hash-based, index-based
 - Algorithms based on number of passes
 - one-pass, two-pass, multiple-pass
 - Different join algorithms
 - I/O, memory requirements

Topics to be Covered (3)

- Advanced Queries

- Spatial database

- Representation, data model, data types

- PAM and SAM

- kd-tree

- R-tree

- Spatial queries

- selection query, range query, NN-query

- skyline query

- How to use learned techniques to support various types of spatial queries?

Topics to be Covered (4)

- Data Mining and Web Search
 - What is data mining/Web mining
 - Frequent itemsets and association rules
 - General idea of classification and clustering
 - The structures of the Web
 - bow-tie, power-law distribution
 - PageRank calculation
 - How to use learned techniques to solve typical data mining/Web search applications?

Format of Questions in Final Exam

- Similar to midterm exam
 - But, you may meet some “challenging” problems in the final exam.
- Four types of problems
 - Concepts
 - True/False statements
 - Make sure to understand those materials well enough
 - Choice question
 - General problems
 - Such as those in the assignments/midterm exam
 - Some are related to algorithm design

Additional Office Hours

- Date: April 13, 14, 15, 16, 19
- Time: 2PM ~ 4PM
- Office: TASC1 9025

- If necessary, please send me emails for additional office hours

More Information

- Final Exam Review

- Will be open for about one week.

- Tentatively

- By the end of April 21, you can check your scores in GradeBook

- Review period: April 22 – 27 (specific time will be announced)