Data and Knowledge Management (DKM)

Module Outline

Week	Topics
1	Database management software: origins and objectives The relational model: algebraic and logical foundations
2	Relational algebra and calculus
3 4 5	SQL: data manipulation, host language support for SQL
6	Transaction management: recovery, concurrency
7	Relational database theory: dependencies, normal forms
8	SQL data definition, other features
9	DBMS architectures and implementations DBMS storage and indexing. Query optimization
10	Enhanced database capabilities, procedural extensions to SQL… Non-relational DBMS, object databases, NoSQL databases
11	Distributed databases, distributed architectures and connectivity. Databases and the Web, JDBC, SQLJ, databases and XML…

Copies of Notes

Copies of notes and other resources can be accessed from Moodle or:

http://www.dcs.bbk.ac.uk/intranet/r/modules/dkm/

Exercises for submission (highly recommended but not compulsory)

Relational algebra   Deadline - 27 October 2013 (end Week 4)
SQL1   Deadline - 10 November 2013 (end Week 6)
SQL2   Deadline - 24 November 2013 (end Week 8)

Coursework Exercise

Deadline - 8 December 2013 (end Week 10)

Assessment

By 2-hour written examination summer 2014 and Coursework Exercise weighting 90% and 10% respectively

Reading

Raghu Ramakrishnan and Johannes Gehrke, Database Management Systems Third Edition, McGraw Hill, 2003, ISBN 0072465638

http://www.cs.wisc.edu/~dbbook