Module overview

Topics List

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Module Description

"This module will introduce the student to the principles and practice of designing and implementing database systems. The student will gain competence in designing relational databases using Entity Relationship Modelling. They will implement relational databases using SQL data definition language. They will query the relational database using SQL data manipulation language. The students will be introduced to the concepts and use of NoSQL databases."

Lecture topics

Week 1	Introduction to Databases	Rosanne
Weeks 2/3/4	Conceptual and logical design	Mary
Weeks 5/6	Normalisation	Mary
Week 7	Physical design	Mary
Week 8	Security	Rosanne
Week 9	Concurrency / Recovery	Rosanne
Weeks 10/11	NoSQL	Rosanne
Week 12	Review	Rosanne

Lab topics

Week 1	SELECT statements Pt. 1	Rosanne
Week 2	SELECT statements Pt. 2	Mary
Weeks 3/4	JOIN statements	Mary
Week 5	Data Manipulation statements	Mary
Week 6	CREATE statements	Mary
Week 7	Subqueries	Mary
Week 8	Security	Rosanne
Week 9	Backups & recovery NoSQL	Rosanne
Weeks 10/11	NoSQL	Rosanne

Assessment

- 50% final exam

- 50% CA

    - Database design document

    - Database implementation (SQL)