

CM1603 Database Systems

Week 5

Tutorial 4 – Enhanced Entity Relationship Diagrams

Exercise 01

Produce an **Enhanced Entity Relationship** diagram for HOSPIMAX as presented below.

HOSPIMAX is a large London hospital that provides care in a range of medical specialities. The hospital is organised in a number of departments, with every department specialised in a particular medical area (e.g. rheumatology, dermatology, immunology, infectious diseases, etc.). When arriving at the hospital, patients are given a room, which they share with other patients, located in a specific ward in the particular hospital department that will provide their care. There are different kinds of people working in this hospital and all have them have well-defined roles: doctors are responsible for patients (up to 25), managers look after a department, technicians oversee wards (up to two), to make sure that the equipment in the ward is maintained adequately, and nurses are assigned entire rooms in the ward to ensure that the patients staying in these rooms are well looked after.

Exercise 02

Go back to the CoolUni case study presented in **Tutorial 2 – Exercise 3**. Consider whether it is appropriate to introduce the enhanced concepts of **specialization/generalization** into the ER model for the case study described in this exercise. If appropriate, redraw the ER diagram as an EER diagram with the additional enhanced concepts.

Exercise 03

Consider the additional information given below regarding the ITDream case study presented in **Tutorial 2 – Exercise 2**.

Customer Relationship Managers (CR Managers) are particular types of staff that plays a specific role at ITDream. They are responsible for locating clients and convincing them to use the services of ITDream. Specific data needs to be stored about them. Also, which CR Managers has located which client needs to be recorded.

Consider whether it is appropriate to introduce the enhanced concepts of specialization / generalisation into the previously produced ERD. Produce an Enhanced Entity Relationship Diagram (EERD) to improve the model of the data architecture of ITDream.