

HOMEWORK -3-

Note if you miss the session, your homework must include the extra queries to gain a grade. Homework MUST be handed in via Canvas ONLY in one file representing the entire homework.

Homework exercise:

Study the Northshore Hospital case study file available on Canvas, based on the information regarding **Patient appointments**

- (a) Identify all entity types, attributes and primary keys
- (b) Identify relationship types and their degrees, state any assumptions you make about the data.
- (c) Determine the multiplicity constraints for each relationship described.
- (d) Create ER-diagram using the information created in previous steps State any assumptions necessary to support your design.
- (e) Translate the ER-diagram using the information created in previous steps into a corresponding Relational Schema.

Extra queries:

- (a) Describe the relationship between mathematical relations and relations in the relational data model.
- (b) Describe how a database designer typically identifies the set of functional dependencies associated with a relation.
- (c) Describe factors that would influence the choice of conducting a ER modeling when designing a database.