Tutorial 5
IT1090 – Information Systems and Data Modeling

1. What is a data model?
   - Explains what should be stored and how it should be organized in DB

2. Name 2 types of Data Models and give some examples for each.
   - High – Level conceptual Model – ER Diagram
   - Record based logical model – Rational database diagram

3. Consider the steps in the database design process.
   a) What are the goals of each step?

      - Requirement Analysis – determine the data requirements

      - Conceptual database design – information gathered used to create high level descriptions which means ER diagrams.

      - Logical database design – Convert ER diagrams/Conceptual Schema to Rational data model.

      - Schema refinement – Normalization (technique of organizing data in database)

      - Physical database design – optimized performance while ensuring data integrity by avoiding data redundancies.

      - Security design - Implement Controls to ensure security and integrity.

   b) In which step is the ER Model used?

      - Conceptual database Design

   c) In which step is the Relational Data Model used?

      - Logical Database design

*End of the Tutorial**