**CSC 430/530 – DATABASE MANAGEMENT SYSTEMS**

**Project scope:**

Design and implement a database for a chosen domain.

**Domain ideas to choose from:**

* Hotel reservation management system
* Restaurant reservation management system
* Airline tickets reservation management system
* Car rental management system
* Apartment rental management system
* Hospital operations management system
* Online retail store management system
* Real estate management system
* Insurance company management system
* **Suggest your own (5 bonus points)**

**Presentation contents:**

1. Database requirement writeup.
2. Enhanced entity-relationship (EER) diagram with specified cardinality ratio and participation constraints with:
   1. Minimum of five (5) strong entities.
   2. At least one (1) multivalued attribute.
   3. At least one (1) composite attribute.
   4. Minimum of one (1) weak entity.
   5. Minimum of three (3) relationships.
   6. At least one (1) ternary relationship.
   7. Minimum of one (1) specialization.
3. Map the EER diagram to a relational data model.
   1. Show the tables of relational data model.
   2. Specify candidate and primary key attributes.
   3. Explain step by step mapping process (reference lesson 5.1).

**You are required to submit your work as a Word or PDF document. Additionally, you will present your work in a 20-minute presentation.**

During the presentation, briefly cover the following components:

* Your database requirements
* The design of your Enhanced Entity-Relationship (EER) model
* The corresponding Relational Model design