Assignment #4 (200pt)

❑ **Due: One Week Later**
  ◻ Before the lecture – 10/12 (Wed)

❑ **Submission form**
  ◻ *.doc or hand writing okay

❑ **Method: upload your report in Cyber Campus**
  ◻ Questions are uploaded in Assignment 2 folder
  ◻ Answers must be written in English !

❑ Answers may vary. There can be multiple answers.

hw4-1 (50pt)

❑ **6.1** Construct an E-R diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents. Each insurance policy covers one or more cars and has one or more premium payments associated with it. Each payment is for a particular period of time, and has an associated due date, and the date when the payment was received.

❑ **6.20** Construct appropriate relation schemas for each of the E-R diagrams

hw4-2 (50pt)

❑ **6.2** Consider a database that includes the entity sets *student*, *course*, and *section* from the university schema and that additionally records the marks that students receive in different exams of different sections.

◻ a. Construct an E-R diagram that models exams as entities and uses a ternary relationship as part of the design.

◻ b. Construct an alternative E-R diagram that uses only a binary relationship between *student* and *section*. Make sure that only one relationship exists between a particular *student* and *section* pair, yet you can represent the marks that a student gets in different exams.

❑ **6.20** Construct appropriate relation schemas for each of the E-R diagrams

hw4-3 (50pt)

❑ **6.3** Design an E-R diagram for keeping track of the scoring statistics of your favorite sports team. You should store the matches played, the scores in each match, the players in each match, and individual player scoring statistics for each match. Summary statistics should be modeled as derived attributes with an explanation as to how they are computed.

❑ **6.20** Construct appropriate relation schemas for each of the E-R diagrams

hw4-4 (50pt)

- ❑ **6.15** Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.

- ❑ **6.20** Construct appropriate relation schemas for each of the E-R diagrams