## **HOMEWORK ONE**

## **Description**

Consider a GRADE\_BOOK database in which instructors within an academic department record points earned by individual students in their classes. The data requirements are summarized as follows:

- Each student is identified by a unique identifier, first and last name, and an email address.
- Each instructor teaches certain courses each term. Each course is identified
  by a course number, a section number, and the term in which it is taught. For
  each course he or she teaches, the instructor specifies the minimum number
  of points required in order to earn letter grades A, B, C, D, and F. For example,
  90 points for an A, 80 points for a B, 70 points for a C, and so forth.
- Students are enrolled in each course taught by the instructor.
- Each course has a number of grading components (such as midterm exam, final exam, project, and so forth). Each grading components has a maximum number of points (such as 100 or 50) and a weight (such as 20% or 10%).
   The weights of all the grading components of a course usually total 100.
- Finally, the instructor records the points earned by each student in each of the grading components in each of the course. For example, student 1234 earns 84 points for the midterm exam grading component of the section 2 course CSc2310 in the fall term of 2009. The midterm exam grading component may have been defined to have a maximum of 100 points and a weight of 20% of the course grade.

Design an enhanced Entity-Relationship diagram for the grade book database and build the design using a data modeling tool such as ERWin or Rational Rose.

## **Notice**

1. Please don't copy from network or other students. Thanks!

- 2. Tools: Many database systems provide tools for database design that support E-R diagrams. These tools help a designer create E-R diagrams, and they can automatically create corresponding tables in a database. There are also several database-independent data modeling tools that support E-R diagrams and UML class diagrams. The drawing tool Dia, which is available as freeware, supports E-R diagrams and UML class diagrams.
- 3. Homework file name format: Group4\_yourname.png
- 4. Upload the E-R diagram in png(the best), jpg or pdf format.
- 5. Deadline: 2017/3/13 23:59
- 6. If you have any question, please contact me by email.

## **TA Contact**

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Good Luck!!!