Homework 2

(end of lecture 4)
MLLO 20180329

Homework 2

Build a database based on the ER model you built in Homework 1. We use 'MySQL Command line client - Unicode' in this homework. For your homework, please do the following

Basic Create a database for the ER model you built, give a proper name to the database.

Basic In this database, create a 'self' table to describe yourself. The table should include your student ID, name, department, year, and other information you think are necessary.

Basic Insert your self-information into the 'self' table.

- For each entity types that you designed in homework 1, create a table with the corresponding name, attributes, domains, and key constraints.

Schema size
  - You will have at least 5 tables or more tables.
  - You will have at least 3 attributes for each table.

- In addition, your tables must contain the following in the corresponding tables
  - Regarding entity types

    Primary Key
      - For each strong entity type, there must be the primary key

    5% bonus
      - For each weak entity type, each partial key should be "turned" into a multi-attribute primary key (by adding additional column).

  - Regarding attributes

    Attrib
      - Define attribute and domain properly
      - For composite-valued attributes, use string to as its domain for now.
      - For each multi-valued attribute,
        - Treat a single value for now

    Attrib constraints Use NOT NULL and Default constraints in at least once for each table
      - Define at least three attribute constraints in all tables using CHECK

Homework 2

○ Regarding relationship

Recursive
- For each recursive relationship, assign the foreign key properly for its corresponding table.

Foreign key
- Each 1-1 or 1-n relationship in the ER diagram should be implemented as a foreign key constraint in a table

m-n
- For each m-n relationship in the ER diagram, you need to create an additional table

Table size
Insert at least 3 rows for each table.

Method of homework delivery:

- Output the your DDL commands and DML commands and their result to a file
- Submit the file as your homework.

● For output to your homework file, use "MySQL Command line client - unicode"
  ○ (Use "tee" command to start the output session, "notree" command to stop)
  ○ Type
    - Tee 'output file path'
    - Select * from self;
    - Select database();
  ○ For each table you want to create, type
    - create table ….
  ○ For the rows you want to insert into table, type
    - insert into yourtablename values …
  ○ After you finish, for each table you created:
    - show create table yourtablename;
    - Select * from youtablename;
  ○ End the output session by typing:
    - Notee

Homework 2-3

Hint:

- What you create in this homework may continue to be used by yourself in the future homeworks.

Other rules:

- Due 4/12 before the end of first break of the class
- Late submission, 80% discount for each day late.
- Maximum two day delay (No acceptance on the third day counting from the submission date.)

Additional bonus:

5% bonus   Use enum type in at least three attribute domains

TA Grading Guidelines

- 20% Basic
- 10% Schema size
- 10% Table size
- 10% Primary Key
- 10% Foreign key
- 10% Recursive
- 10% m-n
- 10% Attrib
- 10% Attrib constraints
- Total 100%
- 5% 5% bonus:we
- 5% 5% bonus: enum
- Total 110%