UNSW Business School/
Information Systems and
Technology Management

INFS 1603
Homework Submission Instructions (week2 and week3)

Your solutions should be emailed to your tutor (**in a word document**) **prior to the very beginning of each lab**.

The purpose of homework exercises is to engage you with the course contents. You have to show that you make a reasonable attempt on the lab exercises of each week (Your solutions may not be perfectly valid, but they reflect your considerations and efforts in these exercises).

Please read the detailed instructions as below:

1. Your solutions **must**:
   - include the **course code**, **tutorial session and week number**, and
   - include your **full name** and **zID**.

   A submission that does not include the required information will automatically incur a zero mark.
2. Late submissions are **not** accepted.
3. A homework submission template is provided.

Standard solutions will be discussed in excerpts in the lab.

Homework 2 (Due in week 3)

Automata, Inc., produces specialty vehicles by contract. The company operates several departments, each of which builds a particular vehicle, such as a limousine, truck, van, or RV.

- Before a new vehicle is built, the department places an order with the purchasing department to request specific components. Automata's purchasing department is interested in creating a database to keep track of orders and to accelerate the process of delivering materials.
- The order received by the purchasing department may contain several different items. An inventory is maintained so the most frequently requested items are delivered almost immediately. When an order comes in, it is checked to determine whether the requested item is in inventory. If an item is not in inventory, it must be ordered from a supplier. Each item may have several suppliers.

Given the description of the processes at Automata's purchasing department, implement the following:

a. Identify all of the main entities.

b. Identify all of the relations and connectivities among entities.

d. Create an ERD based on the Chen's notation

Homework 3 (Due in week 4)

Draw an ER diagram for this situation (state any assumptions that you make). Based on the ER diagram, draw the relevant relational model.

- The firm has a number of sales offices in several states. Attributes of sales office include Office_number (identifier) and Location
- Each sales office is assigned one or more employees. Attributes of employee include Employee_ID (identifier) and Employee_Name. An employee must be assigned one only one sales office
- For each sales office, there is always one employee assigned to manage that office. An employee may manage only the sales office to which he or she is assigned.
- The firm lists property for sale. Attributes of property include Property_ID (identifier) and Location. Components of Location include Address, City, State, and Zip_Code
- Each unit of property must be listed with one (and only one) of the sales offices. A sales office may have any number of properties listed or may have no properties listed.
- Each unit property has one or more owners. Attributes of owners are Owner_ID (identifier) and Owner_Name. An owner may own one or more units of property. An attribute of the relationship between property and owner is Percent_Owned

INFS 1603 Homework Submission

Course code: INFS1603 Tutorial session (e.g., W17B**):**
Week number (e.g., Week1**):**

Full Name: zID:

Solution(s):

A Submission Template (.docx version) is available on Moodle. You may use the template to organize your solutions.