

School of Information and Physical Sciences (SIPS)

INFO6001: Database Management 1

Assignment 2: Superdeli Pizza Project - Logical Database Design

Due: 11:59 pm, Sunday, March 19, 2023

WORTH 15% of the final course assessment mark

In this assignment, steps in the logical database design are conducted (as described below) as well as revising the requirement analysis and conceptual design of assignment 1, and a report is written.

This assignment has 3 parts as specified below.

(Note: if the provided solution EER is not used in assignment 2, zero mark will be given.)

1. Re-do requirements and EER diagram (i.e., all the content of Assignment 1), according to the provided solution EER, and make a necessary discussion to point out the differences between the provided EER and the EER you submitted for your assignment 1.

A solution EER for the project is provided as a file in the same directory of this file, as EER-A1-V2023T1-ForA1FeedbackToStudents.pdf.

You are required to use this EER as a source of correct information to complete all the tasks that are required by assignment 1, including Part 1- Requirements and Part 2 - EER Model with the data dictionary. Or in another word, you re-do all tasks specified in assignment 1, but make sure the EER is the one provided in EER-A1-V2023T1-ForA1FeedbackToStudents.pdf.

You need to make sure all the content (such as data type, data dictionary) is consistent with the provided EER (e.g., EER has an entity Order, of which the attributes are OrderId, OrderDateTime, TotalAmountDue, PaymentMethod, PaymentApprovalNo, Status, and other attributes in subclasses. Then you must have these attributes in your data Order when you do data requirement analysis).

You also need to make the necessary discussion to point out the differences between your submitted EER and the solution EER (Your approaches can be wrong, or right but just different ways of expression). The places to be discussed can be the entities (including superclasses and subclasses), the attributes, relationships, relationship attributes, etc. The length of this section is limited to half to one page.

Note: you need to insert the solution EER (pdf file) into your report. As to the exact way of doing the insertion, you can search Internet.

2. Map the solution EER model to the relational model. Document the relational schema in DBDL (Sample format is given below)

ISBN (id, number, itemNo)

Primary Key id

Alternate Key number

Foreign Key itemNo **references** Book(itemNo)

ON UPDATE CASCADE, ON DELETE CASCADE

3. Normalize the schema to Boyce-Codd Normal Form (if any relation is not already in BCNF). The final normalised schema must be documented in DBDL.

The **final report** should include the following:

1. Necessary discussion to point out the differences between your submitted EER and the solution EER.
2. Requirement Specification (including data requirements, transaction requirements and business rules), based on the solution EER.
3. EER Diagram and Data Dictionary, based on the solution EER.
4. The relational model mapped from the solution EER (i.e., before normalisation)
5. Normalized Relational Schema in DBDL. Ensure that normalisation steps are shown if any.

Method of submission: A softcopy submission is required:

- zip all required files into one zip file. The file name **MUST** be identified by 4 sections: A2, your first name, your surname, and your student number, e.g., A2SimonLee1234567.zip. It must be submitted to Canvas -> Assignments -> Assignment2
- In the report file, you **must** have on the front a **signed** copy of the cover sheet (Assessment Item Cover Sheet – Individual) which is available from:
http://www.newcastle.edu.au/__data/assets/pdf_file/0008/75383/AssessmentItemCoverSheet.pdf

Note: please make sure to fill in your Tutorial Group (i.e., date/time/place), Tutor's Name, as well as other items. Otherwise, your submission marking may be delayed.

Note: Ten percent of the possible maximum mark for the assessment item will be deducted for each day or part day that the item is late. This applies equally to week and weekend days. Assessment items submitted more than five days after the due date will be awarded zero marks.