COMP 2714 – Relational Database Systems

Assignment 04 – Normalization: Relational Model

Due at START of your Lab in week Nov 07 (Tue Nov 08) - Nov 11 (Fri), 2016 [2A, 2B]
Due in Assignment Box at 4:30pm on Thursday, Nov 10, 2016 [2C, 2D]
Friday Nov 11, 2016 is Remembrance Day stat. holiday

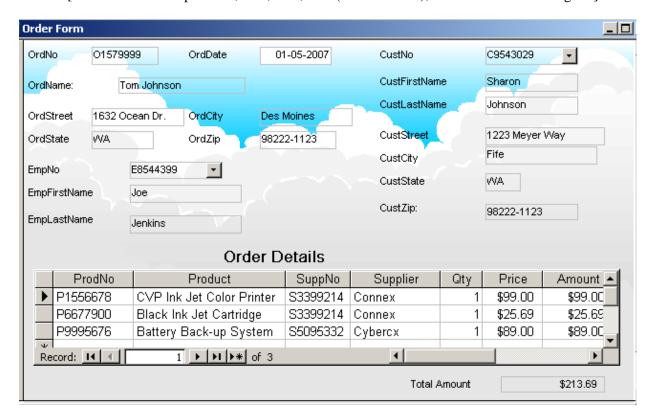
You are to work in groups of 2 students, with partners from within the same set.

Requirements:

- 1. Normalization result must be stated in RELATION SCHEMA format, showing UNF, 1NF, 2NF and 3NF separately and progressively.
- 2. For each normal form, state the normal form objective (i.e. definition of the normal form in terms of functional dependency), and the corresponding problems / issues to be resolved by decomposition.
- 3. For each relation, identify the primary key (with underline), and foreign keys (labeled with [FK] suffix) as appropriate.
- 4 Draw the corresponding ER diagram from each 3NF, using Visio 2010.
- 5. Where necessary, state any business rules / assumptions made during the normalization process, as they affect your design decisions.

Hand in the normalization results (UNF, 1NF, 2NF and 3NF) plus the corresponding logical ER diagrams drawn from the 3NF using Visio (UML notation). On the Cover Page, state clearly the course number, the assignment number, student name(s) [with Lastname, Firstname] and ID number(s), and the set letter.

1. Order (An Order Entry Form)
[25 marks : 5 marks per UNF, 1NF, 2NF, 3NF (with PKs/FKs), and 5 marks for ER diagram]



2. Invoice (A simple Invoice Report)

[25 marks: 5 marks per UNF, 1NF, 2NF, 3NF (with PKs/FKs), and 5 marks for ER diagram]

Invoice

Customer No: C012345Invoice No: I034567Name: Contemporary DesignDate: 2016-10-10Address: 456 Willingdon AvenueOrder No: O076543

Burnaby, BC V3V 2A2

Product	Description	Qty	Qty	Qty	Unit	Total
No		Ord	Ship	Back	Price	Price
P1556678	CVP Ink Jet Color Printer	2	2		120.00	240.00
P6677901	HP Color Laser Printer	1	1		400.00	400.00
P6677909	Color Toner Cartridge	4	2	2	150.00	300.00
				Total Amount		\$940.00
				Discount		40.00
				Amount Due		\$900.00

Total marks: 50/50