

## Lab 8: Database Design III - CRUD (8% of total grade)

**Submission:** Use the included .sql file to put your answers in, then upload only the SQL file to Blackboard (Assessments > Lab 8 - Database Design III CRUD).

**Name your file:** **HTTP5126-L8-CRUD-LastNameFirstName.SQL**, replace *LastNameFirstName* with your name as displayed in Blackboard.

**Purpose:** To practice CRUD functionality using SQL.

**Requirements:** For this assignment, you will use the provided Entity Relationship Diagrams to create tables and then use SQL to alter or delete some of those tables.

**NOTE:** Run your queries on your database to make sure desired results are achieved. Also import and execute your sql file to ensure it runs all your queries before submitting. Each letter of each part represents a single query.

### Pre-Lab:

1. Start your mySQL server and open phpMyAdmin or Adminer.
2. Create a database for this lab (eg. http5126\_lab8). Set the collation as utf8\_unicode\_ci.
3. You will begin this lab with an empty database.

### Part 1: [C]reate (2.5%)

Use SQL to create the ERD tables located in the Appendix Part 1 of this lab. Ensure all the columns, keys, constraints, and data types are properly included in the CREATE TABLE query. When inserting data later your IDs should be populated automatically.

- A. Create the customer table. [0.5%]
- B. Create the supplier table. [0.5%]
- C. Create the order table. [0.5%]
- D. Create the product table. [0.5%]
- E. Create the order\_product table. [0.5%]

### Part 2: [I]nsert (2.5%)

Use SQL to insert the data for each table that is displayed in the Appendix Part 2 of this lab.

- A. Insert the data for the customer table. [0.5%]
- B. Insert the data for the supplier table. [0.5%]
- C. Insert the data for the order table. [0.5%]
- D. Insert the data for the product table. [0.5%]
- E. Insert the data for the order\_product table. [0.5%]

**Part 3: [A]lter (1%)**

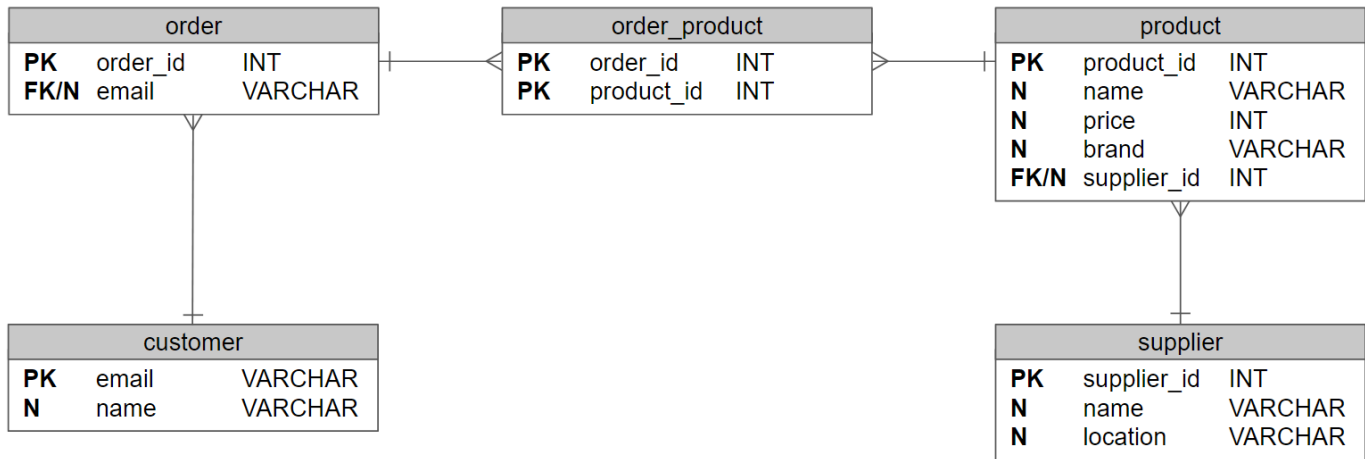
- A. Alter the product table by adding a constraint to the price column that checks for all new products to have a price value equal to or over 0. [0.5%]
- B. Jane meant to order the Canon Camera in her order, alter the order\_product table to reflect this change. [0.5%]

**Part 4: [D]elete (2%)**

- A. Delete the supplier table.
- B. Delete the column supplier\_id from the product table.
- C. John's order has been delivered, drop rows from the order that are related to John.
- D. Also drop rows from the order\_product table that are related to John.

## Appendix

Part 1: Use the ERD below to complete Parts 1A to 1E



Part 2: Use the data in the tables below to populate your created tables from Part 1

order_id (PK)	email (FK)
1	john@gmail.com
2	jane@gmail.com
3	john@gmail.com
4	alice@gmail.com

order_id (PK)	product_id (PK)
1	1
2	2
2	3
3	4
4	5

product_id	name	price	brand	supplier_id (FK)
1	Laptop	800	Dell	1
2	Smartphone	600	Apple	2
3	Smartphone	600	Samsung	2
4	Camera	300	Canon	1
5	Chair	100	Herman Miller	3

email (PK)	name
john@gmail.com	John
jane@gmail.com	Jane
alice@gmail.com	Alice

supplier_id (PK)	name	location
1	XYZ Electronics	Toronto
2	ABC Gadgets	Montreal
3	XYZ Furniture	Vancouver