



Assignment 3

Due: Wednesday, February 22nd, 2023

Total: 10 Points

Instructions

The key requirement of this lab is that you create all the following scripts in a single sql file within MySQL workbench. Make sure all scripts run. Scripts that do not produce the expected results will result in points taken off. You will only be turning in the Script file and nothing else.

Setup or database

Create and save a script file called "assignment3.sql" in MySQL workbench. Connect to your server and create a new schema called <your last name>Sales. For example mine will be VueSales. This is designed to differentiate between the different students. I will be running each of these scripts based of this schema and your future assignments will be based off this schema.

Creating the database(2 Points)

Create the following tables. The underlined column names are the primary keys. Make sure to specify the primary and foreign key constraints in your `create table` statements.

1. **customer:** (cus_code:integer, **cus_lname**:varchar(20), **cus_fname**:varchar(20), **cus_initial**:char, **cus_areacode**:integer, **cus_phone**:integer).
2. **invoice:** (inv_number:integer, **cus_code**:integer, **inv_date**:date, foreign key `cus_code` references `customer(cus_code)`)
3. **line:** (inv_number:integer, prod_code:integer, **line_units**:integer, foreign key `(inv_number)` references `Invoice(inv_number)`, foreign key `(prod_code)` references `Product (prod_code)`)
4. **product:**(prod_code:integer, **prod_desc**:varchar(50), **prod_price**:integer, **prod_quant**:integer, **vend_code**:integer, foreign key `(vend_code)` referenecs `Vendor(vend_code)`)
5. **vendor:**(vend_code:integer, **vend_name**:varchar(30), **vend_contact**:varchar(30), **vend_areacode**:integer, **vend_phone**:integer)



Insert data into the database (2 Points)

Insert the following data in the tables using `insert into` statements:

1. customer:

10010, Ramas, Alfred, A, 615, 8442573
10011, Dunne, Leona, K, 713, 8941238
10012, Smith, Kathy, W, 615, 8942285
10013, Olowski, Paul, F, 615, 2221672
10014, Orlando, Myron, NULL, 615, 2971228

2. invoice:

1001, 10011, 2008-08-03
1002, 10014, 2008-08-04
1003, 10012, 2008-03-20
1004, 10011, 2008-09-23

3. line:

1001, 12321, 1
1001, 65781, 3
1002, 34256, 6
1003, 12321, 5
1002, 12333, 6

4. product:

12321, hammer, 189, 20, 232
65781, chain, 12, 45, 235
34256, tape, 35, 60, 235
12333, hanger, 200, 10, 232

5. vendor:

232, Bryson, Smith, 615, 2233234
235, SuperLoo, Anderson, 615, 2158995



SQL Queries (6 Points)

For each of the following, write SQL statement to produce the required output:

1. List the invoice number and invoice date for all invoices of customer number 10011
2. List the product number and product quantity for products in invoice number 1001
3. List all product description and product price supplied by vendor whose vendor contact name is Smith
4. Produce a list of product description, vendor name, and vendor phone for all products with price less than 50.
5. For each product bought by a customer, list product description and customer's first name and last name.
6. How many vendors supplied products that are cheaper than 50?
7. For each vendor, find the cheapest product.
8. For each invoice, find the total price.
9. Find how many products are there in each invoice.
10. Find how many invoices are made by each customer.
11. Find how many products are bought by each customer.
12. Find vendor code, vendor contact and the number of product supplied by each vendor

Submission

All of your scripts shall be in a single file called "assignment3.sql" and sequentially implemented such that it can be run in one go. Test this to make sure it works. Any errors will result in loss of a point. Submit this compressed zip on D2L under Assignment 3.

Assessment

Criteria	Points
Database creation	2
Insert Statements	2
SQL Queries	6
Total	10



Learning Outcomes

This assignment guides the student through the creation of a database, creating seed scripts for that database, and using that database through simple queries.

Disclaimer

Please review the syllabus on academic integrity and the submission policy. I will follow both strictly, so please adhere to the policy for each subsequent assignment or project. As a reminder you have 3 days grace period for late work with 10% deducted for each day or 24 hour period starting from the time of the due date. Any assignment that goes beyond 3 days or 72 hours will be an automatic zero.