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DAD-220 Intro to Struct Database Env
30 January 2024

DAD 220 Module Four Major Activity Database Documentation Template

Complete these steps as you work through the directions for this activity. Replace the bracketed text with your screenshots and brief explanations of the work they capture. Each screenshot and its explanation should be sized to approximately one quarter of the page, with the description written below the screenshot. Follow these rules for each of the prompts and questions below. Review the example document for assistance.

Follow Steps 1 through 4 from the Module Three Major Activity *only* to generate tables for this assignment.

1. **Import** the **data** from each file **into tables.**
    A. Use the import utility of your database program to load the data from each file into the table of the same name. You'll perform this step three times, once for each table.

```
mysql> LOAD DATA INFILE '/home/codio/workspace/customers.csv'
    -> INTO TABLE Customers
    -> FIELDS TERMINATED BY ','
    -> LINES TERMINATED BY '\n';
Query OK, 37994 rows affected (3.65 sec)
Records: 37994  Deleted: 0  Skipped: 0  Warnings: 0

mysql> LOAD DATA INFILE '/home/codio/workspace/orders.csv'
    -> INTO TABLE Orders;
ERROR 1265 (01000): Data truncated for column 'OrderID' at row 1
mysql> FIELDS TERMINATED BY ','
    -> LINES TERMINATED BY 'r\n';
ERROR 1064 (42000): You have an error in your SQL syntax; check the mar
e right syntax to use near 'FIELDS TERMINATED BY ','
LINES TERMINATED BY 'r\n'' at line 1
mysql> LOAD DATA INFILE '/home/codio/workspace/orders.csv'
    -> INTO TABLE Orders
    -> FIELDS TERMINATED BY ','
    -> LINES TERMINATED BY '\n';
Query OK, 37994 rows affected, 4173 warnings (3.60 sec)
Records: 37994  Deleted: 0  Skipped: 0  Warnings: 4173

mysql> LOAD DATA INFILE '/home/codio/workspace/rma.csv'
    -> INTO TABLE RMA
    -> FIELDS TERMINATED BY ','
    -> LINES TERMINATED BY '\n';
Query OK, 38162 rows affected (3.73 sec)
Records: 38162  Deleted: 0  Skipped: 0  Warnings: 0

mysql>
```

B. Provide the SQL commands you ran against MySQL to complete this successfully in your answer.

Command used:

```
LOAD DATA INFILE '/home/codio/workspace/customers.csv'
INTO TABLE Customers;
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n';

LOAD DATA INFILE '/home/codio/workspace/orders.csv'
INTO TABLE Orders
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n';

LOAD DATA INFILE '/home/codio/workspace/rma.csv'
INTO TABLE RMA
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n';
```

These commands imported files into the tables customer, orders, and RMA.

2. **Write basic queries** against imported tables to organize and analyze targeted data**.**
   A. For each query, include a screenshot of the query and its output. You should also include a 1- to 3-sentence description of the output.
   B. Write an SQL query that returns the count of orders for customers located only in the city of Framingham, Massachusetts.
      i. How many records were returned?

```
mysql> SELECT COUNT(*)
    -> FROM Customers
    -> INNER JOIN Orders on Customers.CustomerID = Orders.CustomerID
    -> WHERE (Customers.City) = "Framingham" AND (Customers.State) = 'Massachusetts';
+----------+
| COUNT(*) |
+----------+
|      505 |
+----------+
1 row in set (0.25 sec)

mysql>
```

Command used:

```
SELECT COUNT(*)
FROM Customers
INNER JOIN Orders on Customers.CustomerID = Orders.CustomerID
```

WHERE (Customers.City) = "Framingham" AND (Customers.State) = 'Massachusetts';

This command allowed me to narrow customers down to the city of Framingham. The query returned 505 records.

C. Write an SQL query to select all of the customers located in the state of Massachusetts.
   i. Use a WHERE clause to limit the number of records in the Customers table to only those that are located in Massachusetts.
   ii. Record an answer to the following question: How many records were returned?

```
mysql> SELECT COUNT(*)
    -> FROM Customers
    -> WHERE Customer.state = 'Massachusetts';
ERROR 1054 (42S22): Unknown column 'Customer.state' in 'where clause'
mysql> SELECT COUNT(*) FROM Customers WHERE Customers.state = 'Massachusetts';
+----------+
| COUNT(*) |
+----------+
|      982 |
+----------+
1 row in set (0.01 sec)

mysql>
```

Command used:

SELECT COUNT(*)
FROM Customers
WHERE Customer.state = 'Massachusetts';

This command allowed me to get the amount of customers from the state of Massachusetts. The command returned a total of 982 customers.

D. Write an SQL query to insert four new records into the Orders and Customers tables using the following data:

   i. Customers Table

CustomerID	FirstName	Lastname	StreetAddress	City	State	ZipCode	Telephone
100004	Luke	Skywalker	17 Maiden Lane	New York	NY	10222	212-555-1234
100005	Winston	Smith	128 Sycamore Street	Greensboro	NC	27401	919-555-6623
100006	MaryAnne	Jenkins	2 Coconut Way	Jupiter	FL	33458	321-555-8907
100007	Janet	Williams	58 Redondo Beach	Torrence	CA	90501	310-555-5678

CustomerID	FirstName	Lastname	StreetAddress	City	State	ZipCode	Telephone
			Blvd				

```
mysql> INSERT INTO Customers
    -> VALUES
    ->     (100004,'Luke','Skywalker','17 Maiden Lane','New York','NY','10222','212-555-1234'),
    ->     (100005,'Winston','Smith','128 Sycamore Street','Greensboro','NC','27401','919-555-6623'),
    ->     (100006,'MaryAnne','Jenkins','2 Coconut Way','Jupiter','FL','33458','321-555-8907'),
    ->     (100007,'Janet','Williams','58 Redondo Beach Blvd','Torrence','CA','90501','310-555-5678');
Query OK, 4 rows affected (0.72 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql>
```

Command used: INSERT INTO Customers
VALUES
(100004,'Luke','Skywalker','17 Maiden Lane','New York','NY','10222','212-555-1234'),
(100005,'Winston','Smith','128 Sycamore Street','Greensboro','NC','27401','919-555-6623'),
(100006,'MaryAnne','Jenkins','2 Coconut Way','Jupiter','FL','33458','321-555-8907'),
(100007,'Janet','Williams','58 Redondo Beach Blvd','Torrence','CA','90501','310-555-5678');

This command allowed me to insert 4 new customers into the customer table.

ii. Orders Table

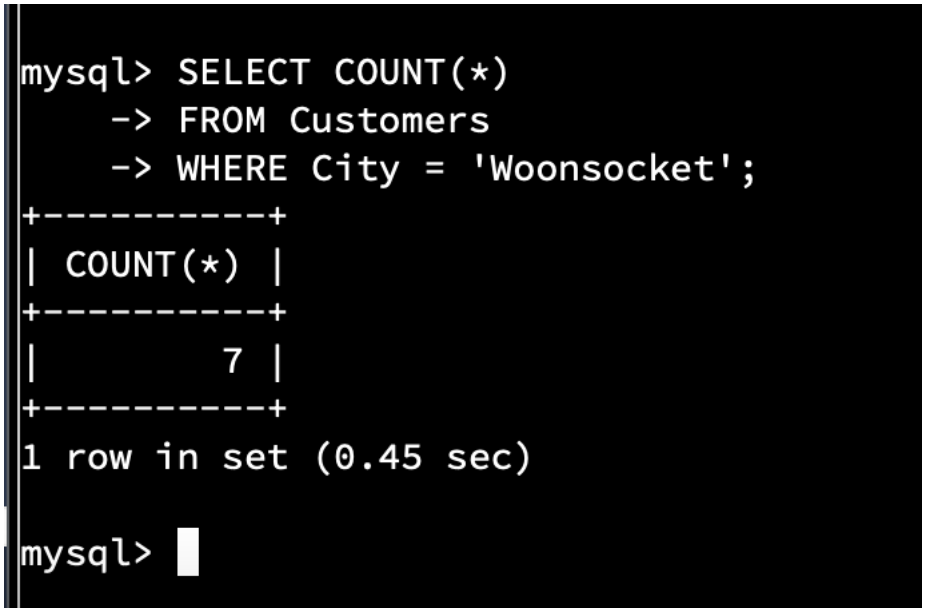
OrderID	CustomerID	SKU	Description
1204305	100004	ADV-24-10C	Advanced Switch 10GigE Copper 24 port
1204306	100005	ADV-48-10F	Advanced Switch 10 GigE Copper/Fiber 44 port copper 4 port fiber
1204307	100006	ENT-24-10F	Enterprise Switch 10GigE SFP+ 24 Port
1204308	100007	ENT-48-10F	Enterprise Switch 10GigE SFP+ 48 port

```
mysql> INSERT INTO Orders
    -> VALUES (1204305,100004,'ADV-24-10C','Advanced Switch 10GigE Copper 4 port'), (1204306,100005,'ADV-48-10F','Advanced Swit
ch 10 GigE Copper/Fiber 44 port copper 4 port fiber'), (1204307,100006,'ENT-24-10F','Enterprise Switch 10GigE SFP+ 24 Port'), (
1204308,100007,'ENT-48-10F','Enterprise Switch 10GigE SPF+ 48 port');
Query OK, 4 rows affected (1.17 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql>
```

Command used: INSERT INTO Orders
VALUES (1204305,100004,'ADV-24-10C','Advanced Switch 10GigE Copper 4 port'), (1204306,100005,'ADV-48-10F','Advanced Switch 10 GigE Copper/Fiber 44 port copper 4 port fiber'), (1204307,100006,'ENT-24-10F','Enterprise Switch 10GigE SFP+ 24 Port'), (1204308,100007,'ENT-48-10F','Enterprise Switch 10GigE SPF+ 48 port');

This command allowed me to update the orders table with new orders.

E. In the Customers table, perform a query to count all records where the city is Woonsocket, Rhode Island.
   i. How many records are in the customers table where the field “city” equals “Woonsocket”?



Command used:
SELECT COUNT(*)
FROM Customers
WHERE City = 'Woonsocket';

This command allowed me to return the number of customers in the city of Woonsocket. The return came out to be 7.

F. In the RMA database, update a customer’s records.
   i. Write an SQL statement to select the current fields of **status** and **step** for the record in the **rma** table with an **orderid** value of “5175.”
      1. What are the current status and step?

```
mysql> SELECT Status, Step
    -> FROM RMA
    -> WHERE OrderID = 5175;
+---------+-----------------------------------+
| Status  | Step                              |
+---------+-----------------------------------+
| Pending | Awaiting customer Documentation |
+---------+-----------------------------------+
1 row in set (0.90 sec)

mysql>
```

Command used:

SELECT Status, Step
FROM RMA
WHERE OrderID = 5175;

This command allowed me to select the status and the next step to an order. The current status is "Pending" and the step details is "Awaiting customer Documentation".

ii. Write an SQL statement to update the **status** and **step** for the **OrderID**, 5175 to **status** = "Complete" and **step** = "Credit Customer Account."

1. What are the updated **status** and **step** values for this record? Provide a screenshot of your work.

```
mysql> UPDATE RMA
    -> SET Status = 'Complete', Step = 'Credit Customer Account'
    -> WHERE OrderID = 5175;
Query OK, 1 row affected (2.98 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT Status, Step
    -> FROM RMA
    -> WHERE OrderID = 5175;
+----------+------------------------+
| Status   | Step                   |
+----------+------------------------+
| Complete | Credit Customer Account |
+----------+------------------------+
1 row in set (0.00 sec)

mysql>
```

Commands used:

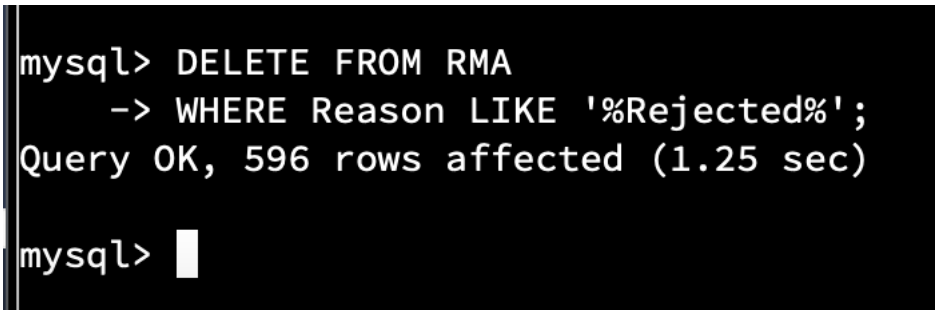
```
UPDATE RMA
SET Status = 'Complete', Step = 'Credit Customer Account'
WHERE OrderID = 5175;

SELECT Status, Step
FROM RMA
WHERE OrderID = 5175;
```

These commands allowed me to update RMA Status and Step. The new Status is “Complete” and the new Step updated to “Credit Customer Account”.

G. Delete RMA records.

i. Write an SQL statement to delete all records with a reason of “Rejected.”

1. How many records were deleted? Provide a screenshot of your work.



Command used:

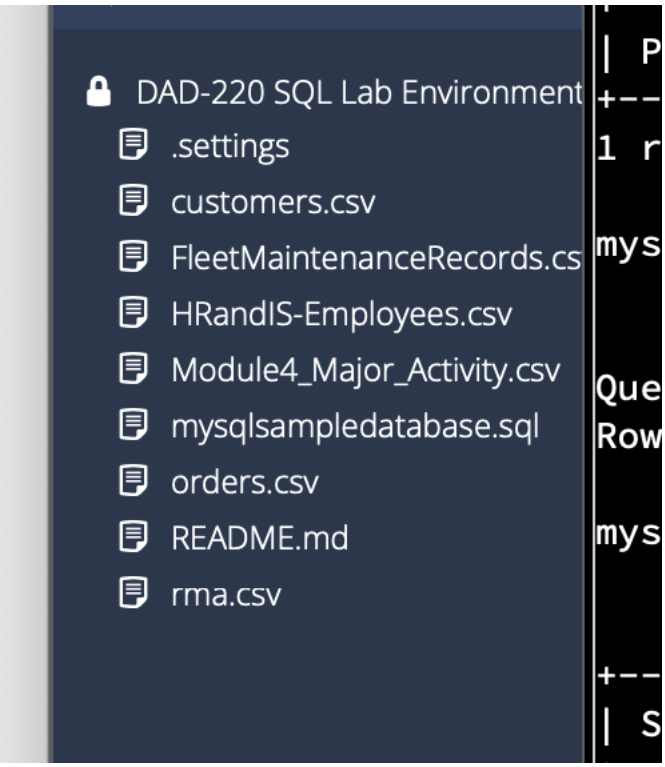
```
DELETE FROM RMA
WHERE Reason LIKE '%Rejected%';
```

This command allowed me to delete all the records matching reason Rejected. There were 596 records deleted.

3. **Create an output file** of the required query results**.**

A. Write an SQL statement to list the contents of the orders table and send the output to a file with a .csv extension.

```
mysql> SELECT *
    -> FROM Orders
    -> INTO OUTFILE '/home/codio/workspace/Module4_Major_Activity.csv'
    -> FIELDS TERMINATED BY ','
    -> LINES TERMINATED BY '\n';
Query OK, 37998 rows affected (0.07 sec)

mysql>
```



Command used:

```
SELECT *
FROM Orders
INTO OUTFILE '/home/codio/workspace/Module4_Major_Activity.csv'
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n';
```

This command creates a query that gathers all the information from all the columns from the Orders table and creates an output file named “Module4_Major_Activity” with a .csv extention.