# DAD 220 Database Documentation Template

## Step One: Create a Database

1. Navigate to your online integrated development environment (IDE). List and record the SQL commands that you used to complete this step here:
2. Create a database schema called QuantigrationUpdates. List out the database name. Provide the SQL commands you ran against MySQL to successfully complete this in your answer:

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* Commands used:
  + Create database QuantigrationUpdates;
  + Show databases;

1. Using the entity relationship diagram (ERD) as a reference, create the following tables with the appropriate attributes and keys:
   1. A table named **Customers** in the QuantigrationUpdates database, as defined on the project ERD. Provide the SQL commands you ran against MySQL to complete this successfully in your answer:

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* + 1. Commands used:
       1. Create table Customers(

CustomerID INT,

FirstName VARCHAR(25),

LastName VARCHAR(25),

Street VARCHAR(50),

City VARCHAR(50),

State VARCHAR(30),

ZipCode INT,

Telephone VARCHAR(15),

PRIMARY KEY (CustomerID));

* 1. A table named **Orders** in the QuantigrationUpdates database, as defined on the project ERD. Provide the SQL commands you ran against MySQL to complete this successfully in your answer:

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Commands used:

create table Orders(

-> OrderID INT,

-> CustomerID INT,

-> SKU VARCHAR(20),

-> Description VARCHAR(50),

-> PRIMARY KEY (OrderID),

-> FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID));

* 1. A table named **RMA** in the QuantigrationUpdates database, as defined on the project ERD. Provide the SQL commands you ran against MySQL to complete this successfully in your answer:

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Commands used:

CREATE table RMA(

-> RMAID int,

-> OrderID int,

-> Step VARCHAR(50),

-> Status VARCHAR(15),

-> Reason VARCHAR(15),

-> PRIMARY KEY (RMAID),

-> FOREIGN KEY (OrderID) REFERENCES Orders(OrderID));

]

## Step Two: Load and Query the Data

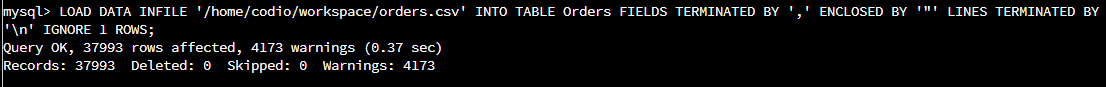
1. **Import the data from each file into tables.** 
   * Use the QuantigrationUpdates database, the three tables you created, and the three CSV files preloaded into Codio.
   * Use the import utility of your database program to load the data from each file into the table of the same name. You will perform this step three times, once for each table.

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

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Explanation: I ran query to select all customers from the customers table where the state was equal to Massachusetts and the City was equal to Framingham. The results to this query were that 505 Customers reside in Framingham, Massachusetts.

Commands used: select Count(\*) from Customers where State = ‘Massachusetts’ and City = ‘Frammingham’;

* + Write an SQL query to **select all** of the Customers located in the state of Massachusetts.
    1. Use a WHERE clause to limit the number of records in the Customers table to only those who are located in Massachusetts.
    2. Record an answer to the following question: How many records were returned?

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Explanation: Ran a query to select a count of all customers from the Customers table where the state was equal to Massachusetts. The results of this query showed that 982 customers resided in Massachusetts.

Commands used: select Count(\*) from Customers where State = ‘Massachusetts’;

* + Write a SQL query to insert four new records into the Orders and Customers tables using the following data:

**Customers Table**

| **CustomerID** | **FirstName** | **LastName** | **StreetAddress** | **City** | **State** | **ZipCode** | **Telephone** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 100004 | Luke | Skywalker | 15 Maiden Lane | New York | NY | 10222 | 212-555-1234 |
| 100005 | Winston | Smith | 123 Sycamore Street | Greensboro | NC | 27401 | 919-555-6623 |
| 100006 | MaryAnne | Jenkins | 1 Coconut Way | Jupiter | FL | 33458 | 321-555-8907 |
| 100007 | Janet | Williams | 55 Redondo Beach Blvd | Torrence | CA | 90501 | 310-555-5678 |

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Explanation: used INSERT INTO to insert values into designated table. Then used Select \* from and added WHERE and IN clause to select only those new values to ensure they were added correctly.

Commands used:

INSERT INTO Customers VALUES (100004, 'Luke','Skywalker','17 Maiden Lane','New York','NY', 10222, '212-555-1234'),

-> (100005, 'Wnston','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');

select \* from Customers where CustomerID IN (100004, 100005, 100006, 100007);

**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 |

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Explanation: Used INSERT INTO to insert provided values into appropriate table, then ran a select query containing a where and in clause to only ensure that those specific values had been properly added.

Commands used: INSERT INTO Orders VALUES (1204305, 100004, 'ADV-24-10C', 'Advanced Switch 10GigE Copper 24 port'),

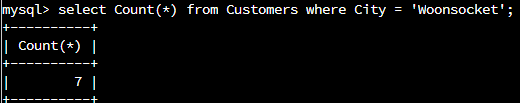
-> (1204306, 100005, 'ADV-48-10F','Advanced Switch 10 GigE Copper/Fiber 44 port copper 4 port fiber'),

-> (1204307, 100006, 'ENT-24-10F','Enterprise Switch 10GigE SFP+ 24 Port'),

-> (1204308, 100007, 'ENT-48-10F','Enterprise Switch 10GigE SFP+ 48 port');

Select \* from Orders where OrderID IN (1204306, 1204307, 1204308, 1204305);

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



Explanation: Ran a query to select a count of customers where City was equal to Woonsocket.

Commands used: select Count(\*) from Customers where City = ‘Woonsocket’;

* + In the RMA database, update a customer’s records.
    1. 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?

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Explanation: ran a query to select the status and step from the RMA table where the order ID was equal to 5175.

Command used: select Status, Step FROM RMA WHERE OrderID = 5175;

* + 1. 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?

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Explanation: Ran a command to set the status to complete and step to credit customer account where the OrderID was equal to 5175. Then checked for updated status using previous command in last question.

Commands used:

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

select Status, Step FROM RMA WHERE OrderID = 5175;

* + Delete RMA records.
    1. Write an SQL statement to delete all records with a reason of “Rejected.”
       1. How many records were deleted?

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Explanation: Ran a select count query to see how many records had their reason = rejected. Then attempted to delete exact matches, but none were deleted so I ran the same query, but changed = to LIKE after doing some research on how to go around this issue I had.

Commands used:

select count(\*), Reason FROM RMA Group by Reason;

DELETE FROM RMA WHERE Reason = 'Rejected';

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

1. **Update your existing tables** from “Customer” to “Collaborator” using SQL based on this change in requirements. Provide the SQL commands you ran against MySQL to complete this successfully in your answer:
   1. Rename all instances of “Customer” to “Collaborator.”

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Explanation: Used Alter TABLE commands to change instances of CustomerID to CollaboratorID in both Customer table and Orders table.

Commands used: Alter Table Customers

CHANGE CustomerID CollaboratorID INT;

Alter Table Orders

CHANGE CustomerID CollaboratorID INT;

1. **Create an output file of the required query results.** Write an SQL statement to list the contents of the **Orders** table and send the output to a file that has a .csv extension.

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Explanation: Selected all values from Orders and put them into an outfile called ProjectOne.csv

Commands used: SELECT \* FROM Orders

-> INTO outfile'/home/codio/workspace/ProjectOne.csv'

-> FIELDS TERMINATED BY ',';