# DAD 220 Database Documentation

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DAD-220

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Complete these steps as you work through the directions for Project One. 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 located in the Project One Supporting Materials for assistance.

## 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:

Text

Description automatically generated

The command I used to access my online IDE can be seen captured above.

1. 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:

Text

Description automatically generated

In order to complete this step, I created a new database called QuantigrationUpdates using the command seen above.

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:

Text

Description automatically generated

In order to create a Customers table, I had to identify using the ERD diagram what this table needed to contain, how the variables need to be created (i.e. INT, VARCHAR, etc), and if there were any primary or foreign keys.

Text

Description automatically generated

I then described the table to view what I had created to make sure it matched the ERD project diagram and to ensure that I didn’t miss anything.

* 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:

Text

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

I did the same thing for the Orders table that I did for the Customers table. The only difference between both tables was the ERD diagram told me that the Orders table needed not only a primary key but a foreign key.

* 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:

A screenshot of a computer

Description automatically generated with low confidence

I then created the RMA table using similar steps that I used for the Customers and Orders table and assigned a foreign key to this table in accordance with the ERD diagram.

## 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.

A screenshot of a computer screen

Description automatically generated with medium confidence

This step didn’t require a screenshot, but I thought this was relevant to show. I ran into an issue importing the data from the csv to the tables. The first table I did (which I forgot to capture a screenshot of) was customers and worked. The next two refused to work. I had to do a bit of reading to figure out a workaround for this. What I think happens when I entered the command to set foreign keys to zero, was it disabled the linking between the foreign keys and their values in other tables. After I set the foreign keys to zero, I could import the remaining files. I also had to remember that I should set foreign keys back to one after I imported everything that I needed to.

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? 505

A screenshot of a computer

Description automatically generated with medium confidence

To determine how many customers are from Framingham, Massachusetts, I entered the command seen above which required the state to be Massachusetts and the City to be Framingham.

* + 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? 982

Text

Description automatically generated

To determine all the customers that are from Massachusetts, I used a where command that required the state to be 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 |

Text

Description automatically generated

I used the above command to insert four new customers into the Customer table. I had to ensure the values were in the format that was initialized for that table. I then viewed the customer IDs associated with the new four customers to ensure that I entered them correctly.

**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 |

A computer screen capture

Description automatically generated with medium confidence

I used the above commands to insert new equipment orders into the Orders table.

* + 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”? 7

Text

Description automatically generated

I then used the above command to see how many customers are from the City of 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?

Status = Pending, Step = Awaiting customer Documentation

Timeline

Description automatically generated with medium confidence

I then viewed the status and step associated with Order ID 5175 using the above command.

* + 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?

Status = Complete, Step = Credit Customer Account

A computer screen capture

Description automatically generated with medium confidence

I then used the above command to update the step and status associated with Order ID 5175 to complete and credit the customer account. My initial command had a syntax error, but when I identified it, I was able to enter the command successfully.

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

595

Text

Description automatically generated

I learned from a previous mistake I made in a previous assignment, which was I never viewed how many were rejected before I deleted them. I viewed the reasons first so I could see that when I deleted all that was LIKE rejected, I could view the table again to see that the command I entered worked as intended.

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.”

Graphical user interface

Description automatically generated with medium confidence

Text

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So, this step confused me initially, and took me some time to figure it out. I ended up trying two different things as seen above. I made a new table called Collaborators but also renamed the Customer table to Collaborator. I think this is what was asked of this step, but I may have missed what the question was asking.

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.

Text

Description automatically generated

Finally, I took the contents of the Orders table and sent them to a file named QuantigrationOrders.csv using the command seen above.