# DAD 220 Project One Template

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 in the Supporting Materials section of the Project One Guidelines and Rubric for assistance.

## Step One: Create a Database

1. In your online IDE (Codio), **create a database schema** called QuantigrationUpdates that will hold tables by using SQL commands.
   1. List out the database name on the screen.
   2. Provide the SQL commands you ran against MySQL to complete this step.

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1. Connect to the QuantigrationUpdates schema. Using the ERD as a reference, **write SQL commands to create** the following **tables** with the appropriate attributes and keys to demonstrate relationships based on the ERD.
   1. A table named Customers to store customer information with a primary key of Customer ID. Provide the SQL commands you ran against MySQL to complete this step.

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* 1. A table named Ordersto store order information with a primary key of Order ID and a foreign key of Customer ID. Provide the SQL commands you ran against MySQL to complete this step.

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* 1. A table named RMA to store RMA information with a primary key of RMA ID and a foreign key of Order ID. Provide the SQL commands you ran against MySQL to complete this step.

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## Step Two: Load and Query the Data

1. **Import** the **data** from each file **into tables.** 
   1. Use the QuantigrationUpdates database, the three tables you created, and the three CSV files preloaded into Codio.
   2. Use the import utility of your database program to load the data from each file into the table of the same name. Perform this step three times, once for each table.
   3. Provide the SQL commands you ran against MySQL to complete this step.

LOAD DATA INFILE '/home/codio/workspace/customers.csv'

INTO TABLE Customers

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n';

LOAD DATA INFILE '/home/codio/workspace/orders.csv'

INTO TABLE Orders

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n';

LOAD DATA INFILE '/home/codio/workspace/rma.csv'

INTO TABLE RMA

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n';

1. **Write basic queries** against the imported tables to organize and analyze the targeted data**.** For each query, replace the bracketed text with a screenshot of the query and its output. Also, include a one- to three-sentence description of the output.
   1. Write a SQL query that returns the count of orders for customers located only in Framingham, Massachusetts.
      1. This query will use a table join between the Customers and Orders tables. The query will also use a WHERE clause.
      2. How many records were returned?

“SELECT COUNT(\*)

FROM Customers

INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID

WHERE Customers.City = 'Framingham' AND Customers.State = 'Massachusetts';”

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This query returned a total of 2019 records total in Framingham Massachusetts.

* 1. Write a SQL query to select all of the customers located in 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. How many records were returned?

“SELECT COUNT(\*)

From Customers

Where State = 'Massachusetts';”

4004 Records were returned for customers who live in Massachusetts using the query above.

* 1. Write a SQL query to insert four new records into the Orders and Customers tables using the data below:

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

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* 1. In the RMA database, update a customer's records.
     1. Write a 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?

The screenshot below in “2.” Shows the query “SELECT STATUS, Step FROM RMA WHERE OrderID = 5175;” This shows the status “Pending” and the step is “Awaiting Customer Documentation”.

* + 1. Write a SQL statement to update the **status** and **step** for the **OrderID**, 5175 to **status** = "Complete" and **step** = "Credit Customer Account".

2. What are the updated **status** and **step** values for this record?

The new updated status of OrderID 5175 is “Complete”, and “Credit Customer Account” is shown for the step update.

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

“DELETE from RMA

where Reason LIKE '%Rejected%';”

After RMA record deletion using the query above 596 records were deleted.

1. **Update your existing tables** from "Customer" to "Collaborator" using SQL based on this change in requirements. Copy and paste the SQL you write to do the following action:
   1. Rename all instances of "Customer" to "Collaborator".

“RENAME TABLE Customers TO Collaborators;

ALTER TABLE Collaborators

RENAME COLUMN CustomerID TO CollaboratorID;

ALTER TABLE Orders

RENAME COLUMN CustomerID TO CollaboratorID;”

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

DESCRIBE Orders; Shows us the contents of the Orders table. The following screenshot shows the data put into a CSV extension as the name “Project1”. This is confirmed by being shown in the File tree as well.

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