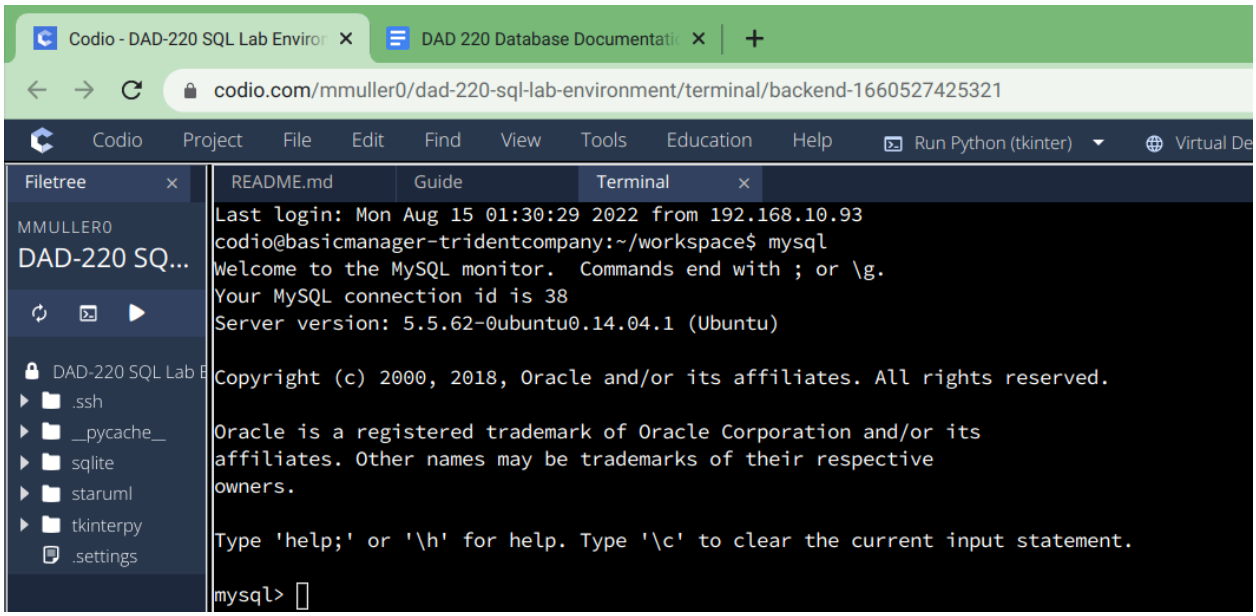
DAD 220 Database Documentation Template

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 located in the Project One Supporting Materials for assistance.

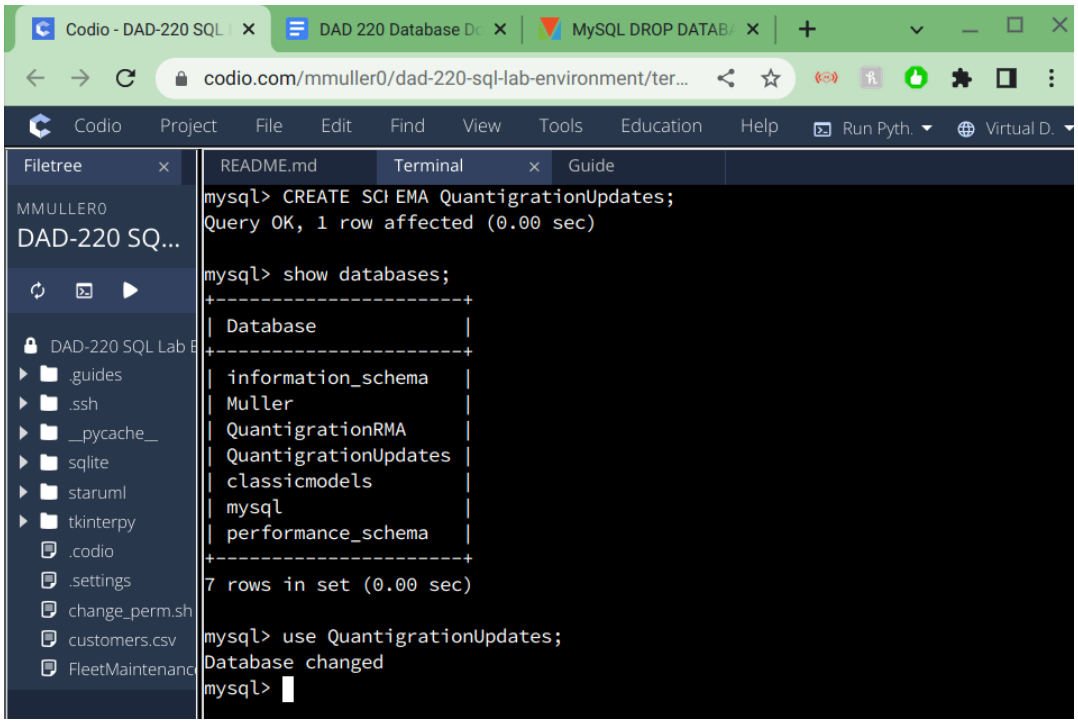
Step One: Create a Database

1. Navigate to your online integrated development environment (IDE). List and record the SQL commands that you used to complete this step here:



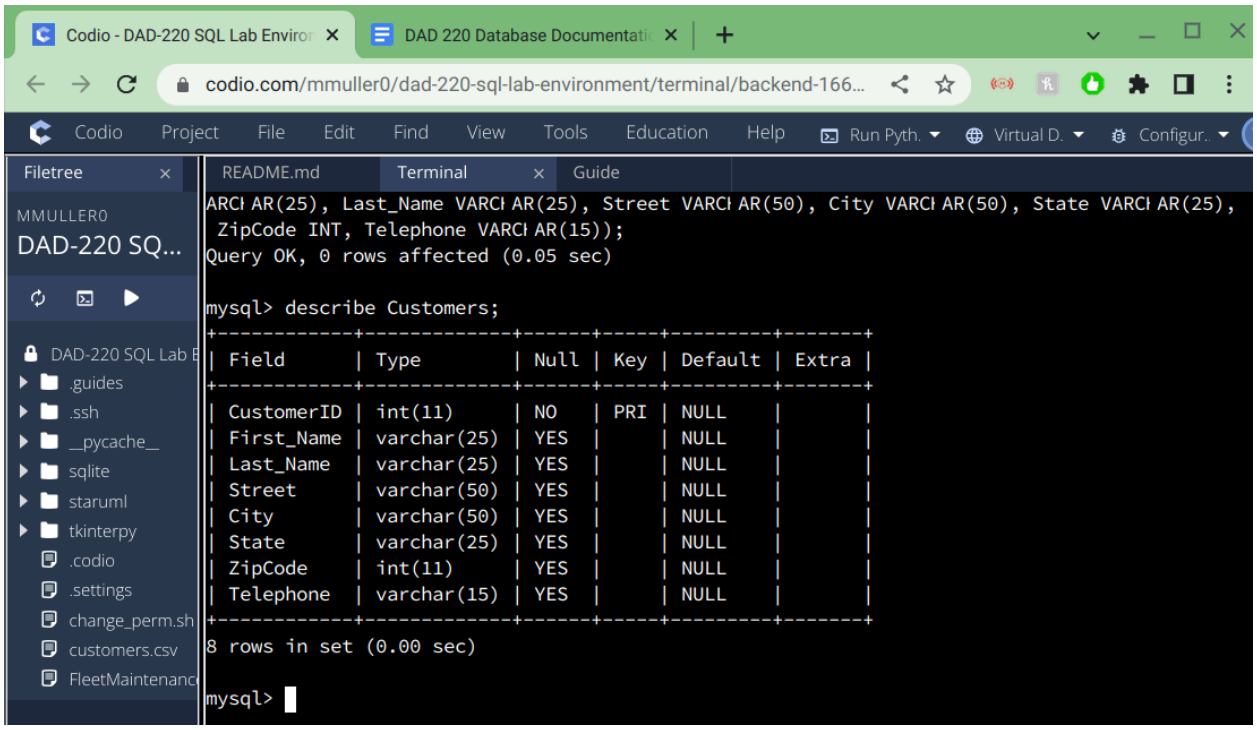
mysql

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:



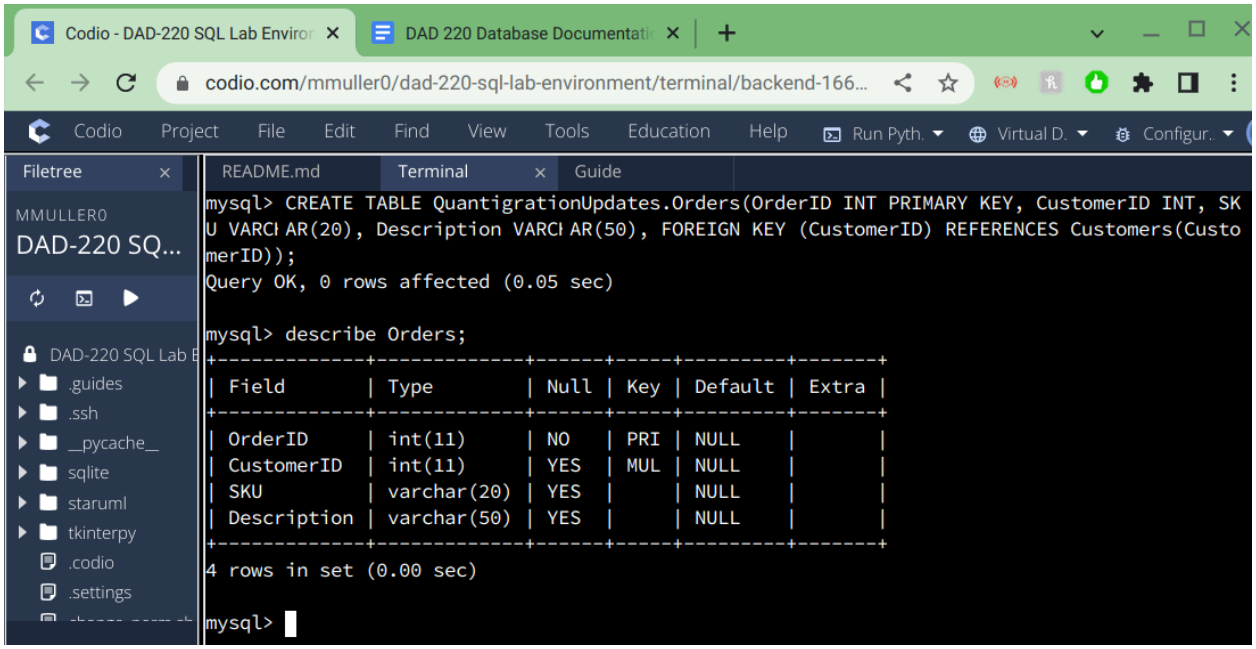
CREATE SCHEMA QuantigrationUpdates;
show databases;
use QuantigrationUpdates;

3. Using the entity relationship diagram (ERD) as a reference, create the following tables with the appropriate attributes and keys:
    a. 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:



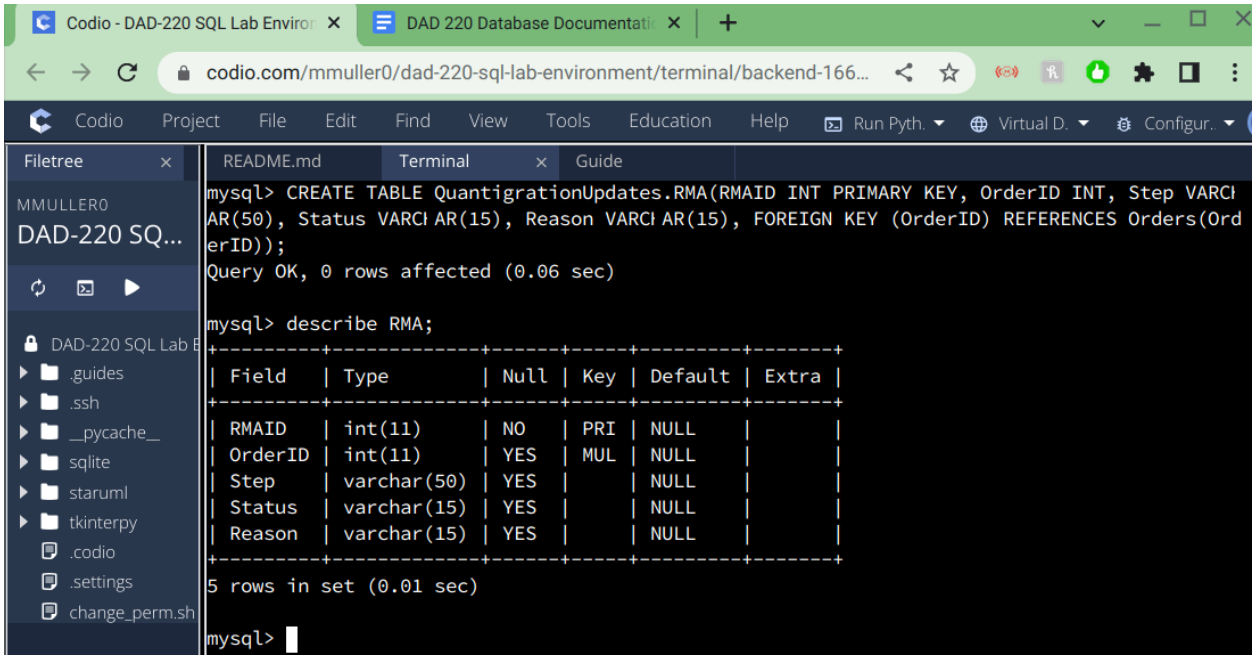
CREATE TABLE QuantigrationUpdates.Customers(CustomerID INT PRIMARY KEY, First_Name VARCHAR(25), Last_Name VARCHAR(25), Street VARCHAR(50), City VARCHAR(50), State VARCHAR(25), ZipCode INT, Telephone VARCHAR(15));

b. 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:



CREATE TABLE QuantigrationUpdates.Orders(OrderID INT PRIMARY KEY, CustomerID INT, SKU VARCHAR(20), Description VARCHAR(50), FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID));
describe Orders;

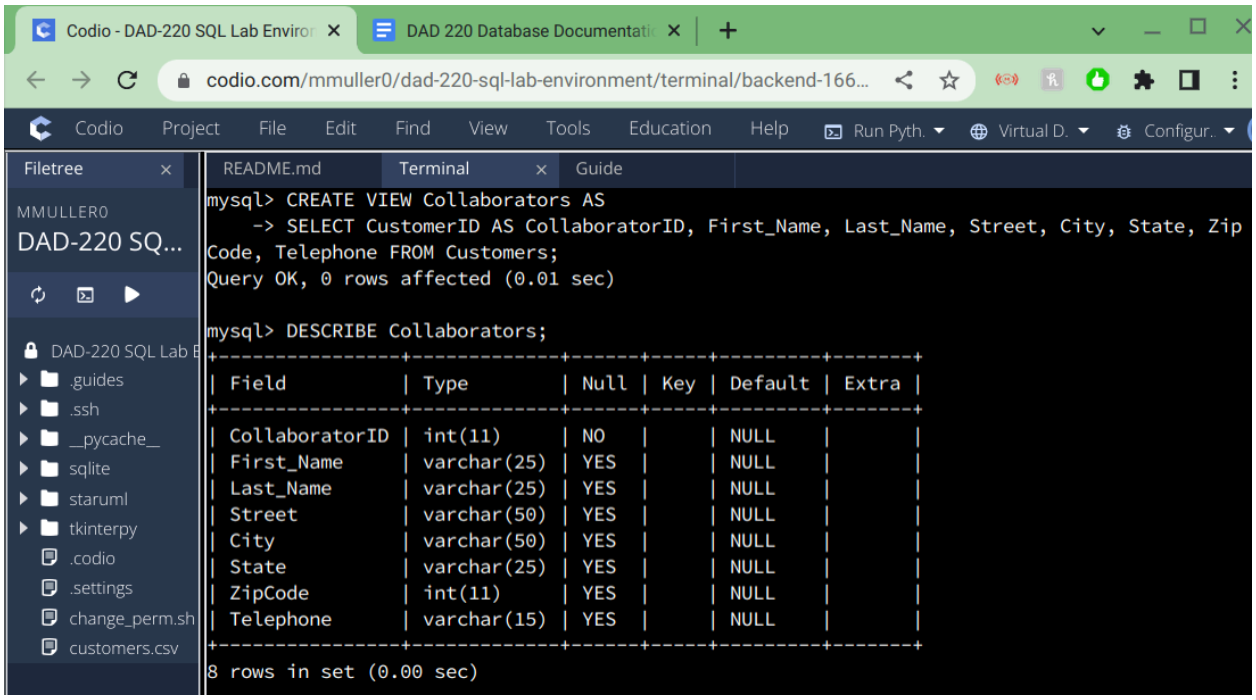
c. A table named **RMA** in the QuantigrationUpdates database, as defined on the project ERD. Provide the SQL commands you ran against MySQL to complete this successfully in your answer:



CREATE TABLE QuantigrationUpdates.RMA(RMAID INT PRIMARY KEY, OrderID INT, Step VARCHAR(50), Status VARCHAR(15), Reason VARCHAR(15), FOREIGN KEY (OrderID) REFERENCES Orders(OrderID));

describe RMA;

4. **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:
   a. Rename all instances of “Customer” to “Collaborator.”



CREATE VIEW Collaborators AS
SELECT CustomerID AS CollaboratorID, First_Name, Last_Name, Street, City, State, ZipCode, Telephone FROM Customers;
DESCRIBE Collaborators;

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.

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

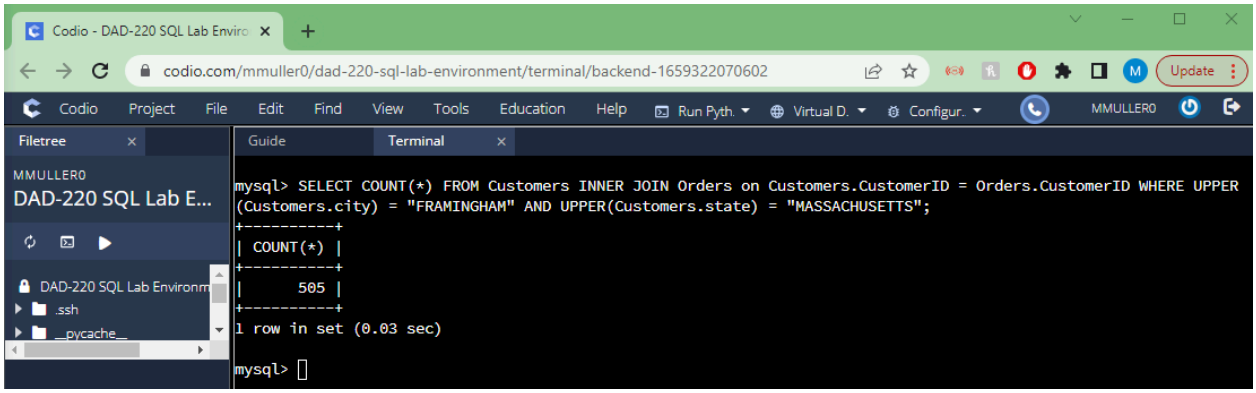
LOAD DATA INFILE '/home/codio/workspace/orders.csv' INTO TABLE Orders FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n';

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

2. **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.
    i. How many records were returned?

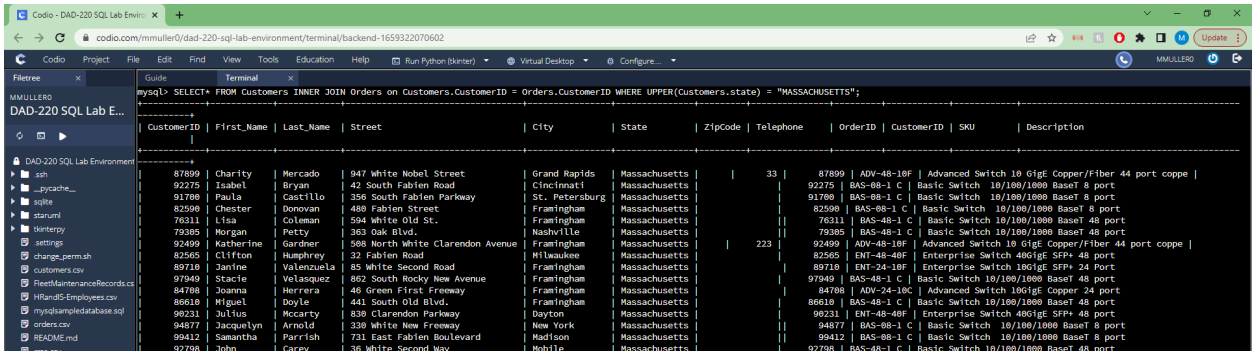
This query returned 505 records. The query joined the Customers and Orders tables via the CustomerID and returned a count of all orders where the customer's city was Farmington and their state was Massachusetts.



SELECT COUNT(*) FROM Customers INNER JOIN Orders on Customers.CustomerID = Orders.CustomerID WHERE UPPER(Customers.city) = "FRAMINGHAM" AND UPPER(Customers.state) = "MASSACHUSETTS";

- 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 who are located in Massachusetts.
    ii. Record an answer to the following question: How many records were returned?

This query returned 982 records. The query joined the Customers and Orders tables via the CustomerID and returned all of the orders where the customer's state was Massachusetts.

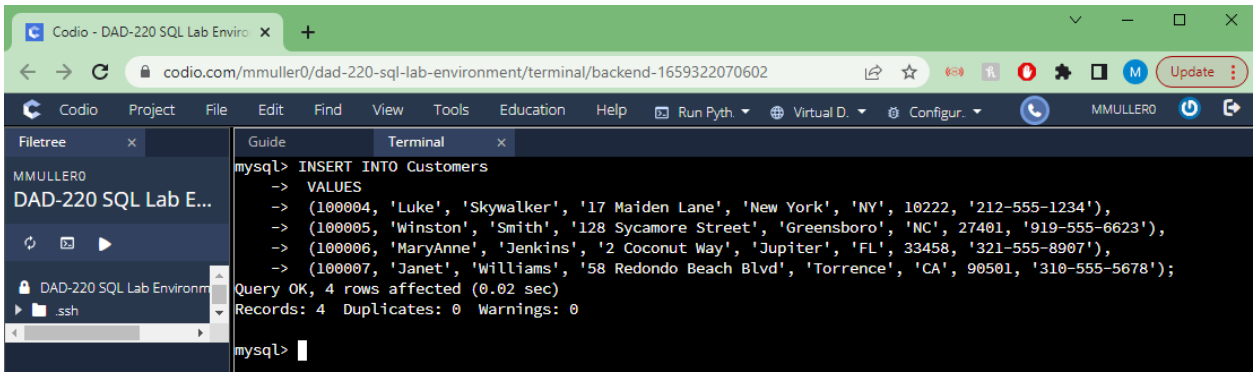


SELECT* FROM Customers INNER JOIN Orders on Customers.CustomerID = Orders.CustomerID WHERE UPPER(Customers.state) = "MASSACHUSETTS";

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

    i. Customers Table

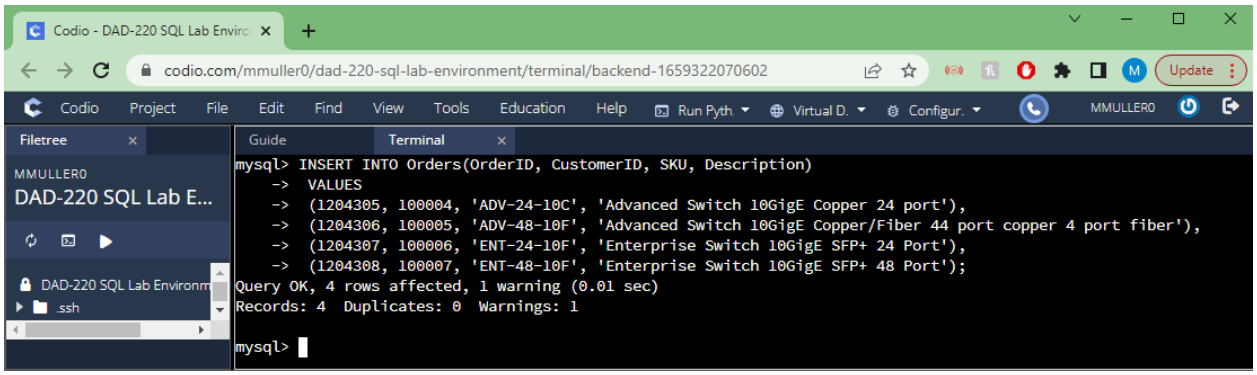
CustomerID	FirstName	LastName	StreetAddress	City	State	ZipCode	Telephone
100004	Luke	Skywalker	15 Maiden Lane	New York	NY	10222	212-555-1234
100005	Winston	Smith	123 Sycamore Street	Greensboro	NC	27401	919-555-6623
100006	MaryAnne	Jenkins	1 Coconut Way	Jupiter	FL	33458	321-555-8907
100007	Janet	Williams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



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');

ii. Orders Table

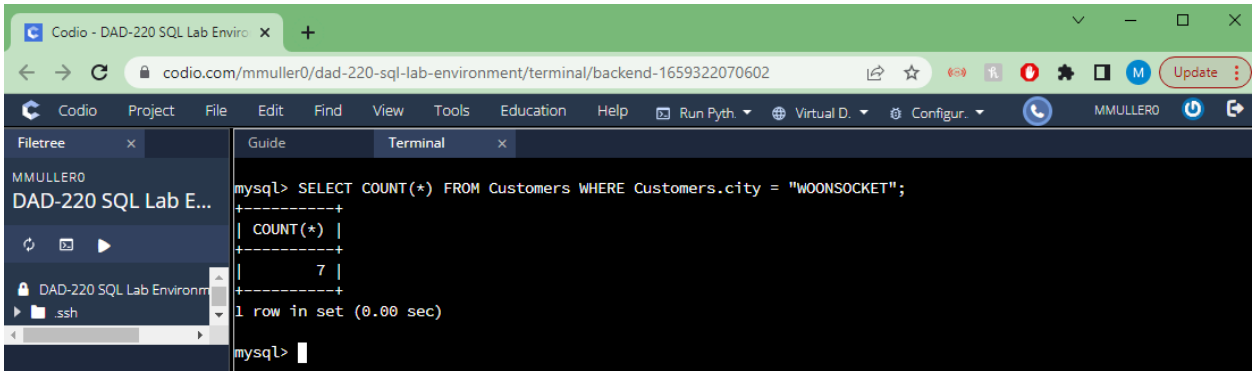
OrderID	CustomerID	SKU	Description
1204305	100004	ADV-24-10C	Advanced Switch 10GigE Copper 24 port
1204306	100005	ADV-48-10F	Advanced Switch 10 GigE Copper/Fiber 44 port copper 4 port fiber
1204307	100006	ENT-24-10F	Enterprise Switch 10GigE SFP+ 24 Port
1204308	100007	ENT-48-10F	Enterprise Switch 10GigE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



INSERT INTO Orders(OrderID, CustomerID, SKU, Description)
-> VALUES
-> (1204305, 100004, 'ADV-24-10C', 'Advanced Switch 10GigE Copper 24 port'),
-> (1204306, 100005, 'ADV-48-10F', 'Advanced Switch 10GigE 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');

- 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”?

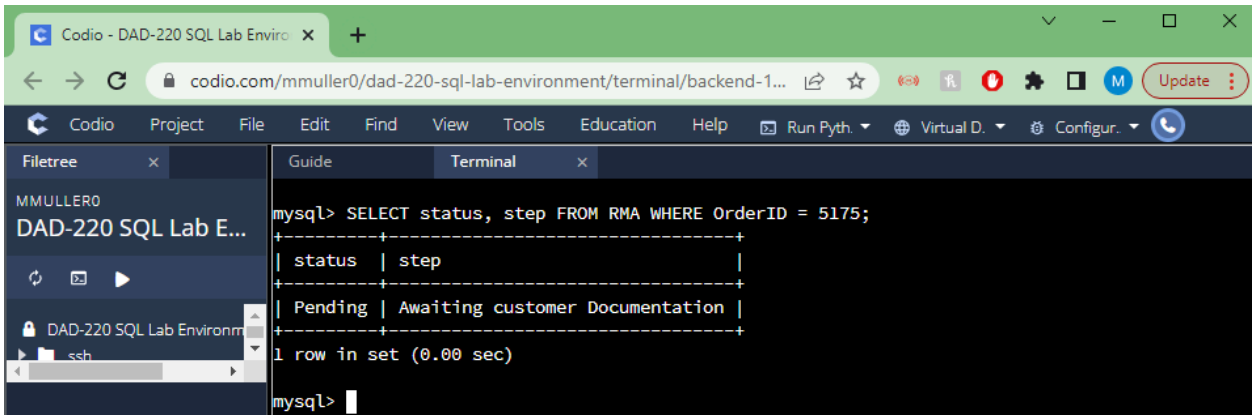
This query returned 7 records. The query counted all records in the Customers table where city equals “Woonsocket”.



SELECT COUNT(*) FROM Customers WHERE Customers.city = "WOONSOCKET";

- 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?

The current status is Pending and the current step is Awaiting customer Documentation.

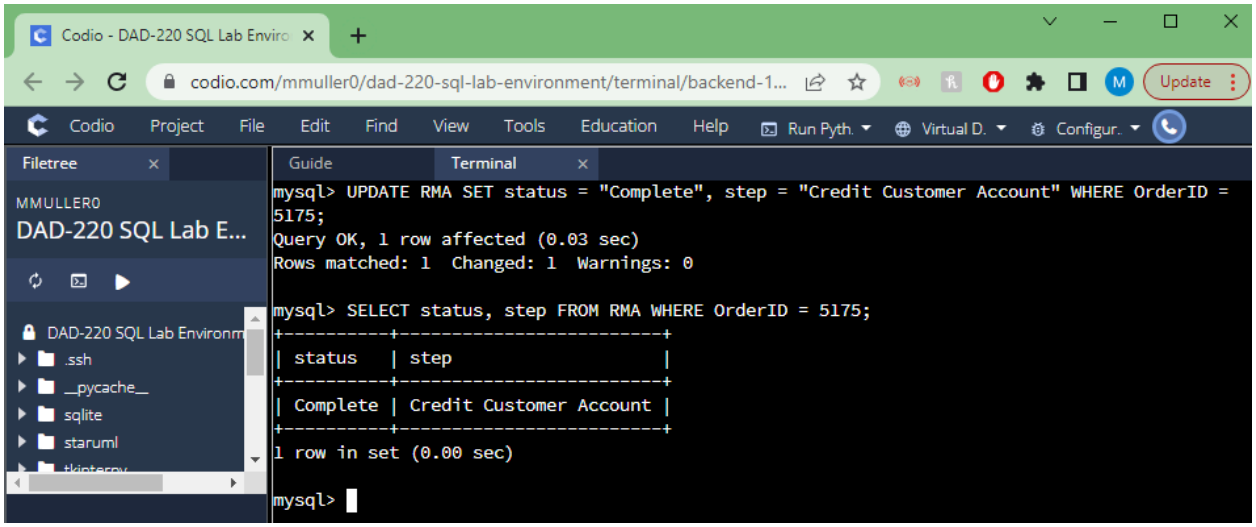


SELECT status, step FROM RMA WHERE OrderID = 5175;

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?

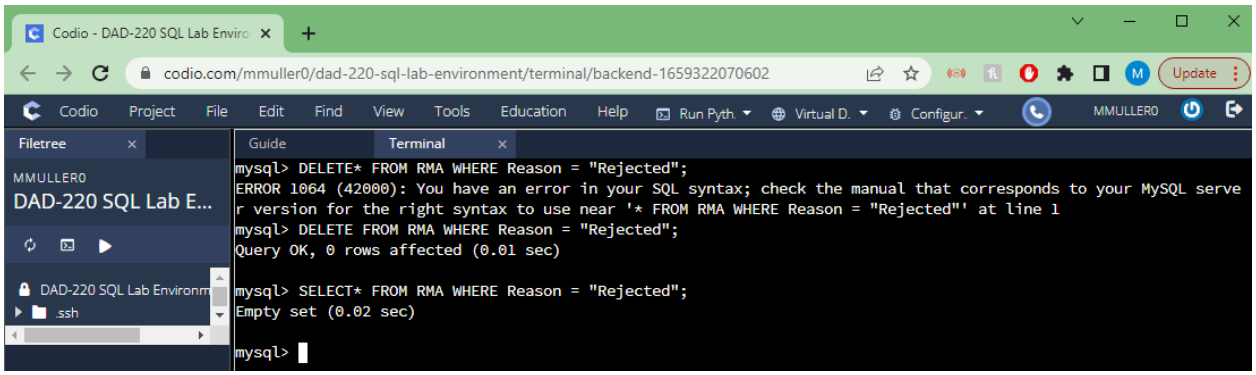
After updating, the values of status and step for the record with OrderID 5175 are “Complete” and “Credit Customer Account,” respectively.



UPDATE RMA SET status = "Complete", step = "Credit Customer Account" WHERE OrderID = 5175;

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

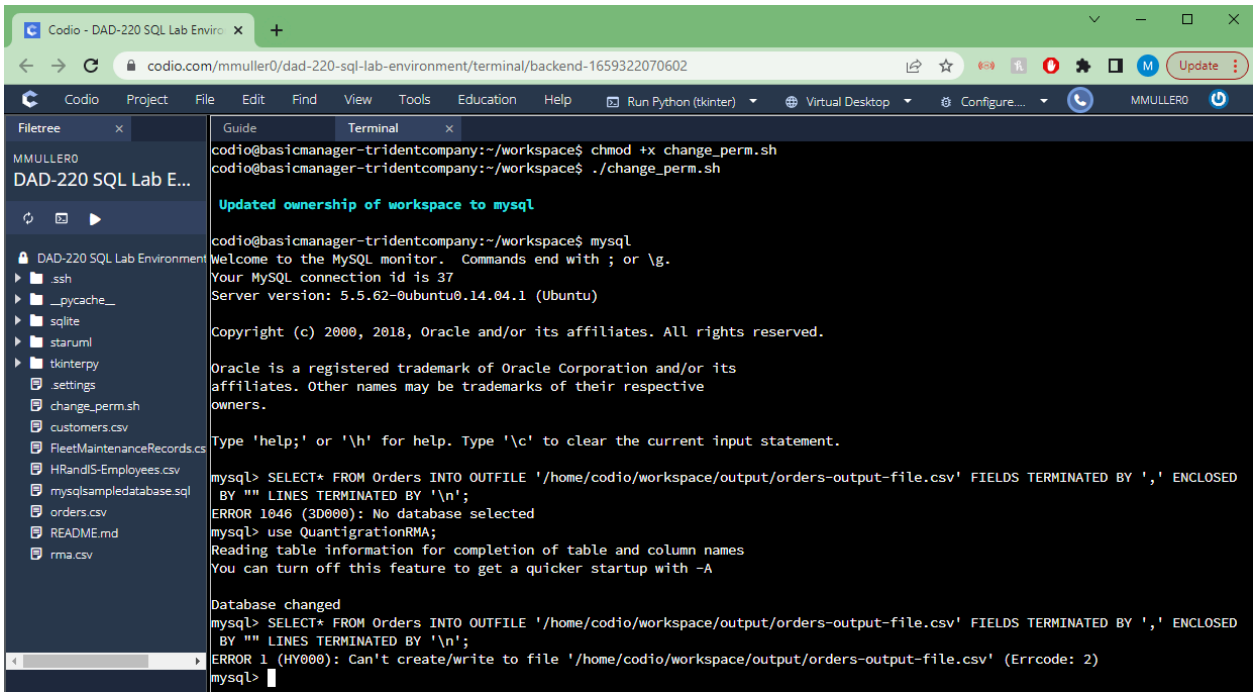
This query did not delete any records. I’m not sure if this was supposed to be the case but I performed a SELECT* operation afterwards and it says that there are no records in the RMA table where Reason = “Rejected.”



DELETE FROM RMA WHERE Reason = "Rejected";
SELECT* FROM RMA WHERE Reason = "Rejected";

3. **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.

   I believe that I have performed the correct command to create an output file for the Orders table but it is saying that I am unable to create the file. I am not sure how to grant myself permission to do this but I think that the code is correct.



SELECT* FROM Orders INTO OUTFILE '/home/codio/workspace/output/orders-output-file.csv' FIELDS TERMINATED BY ',' ENCLOSED BY "" LINES TERMINATED BY '\n';