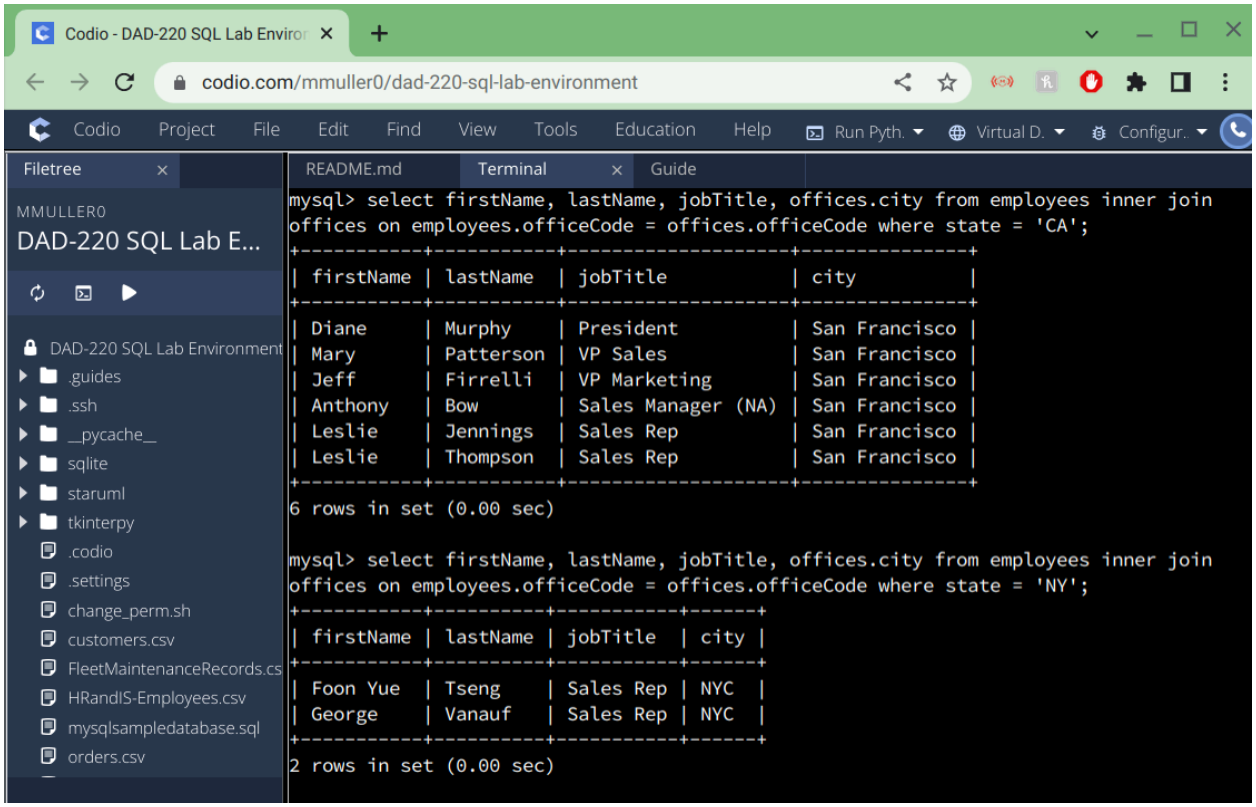
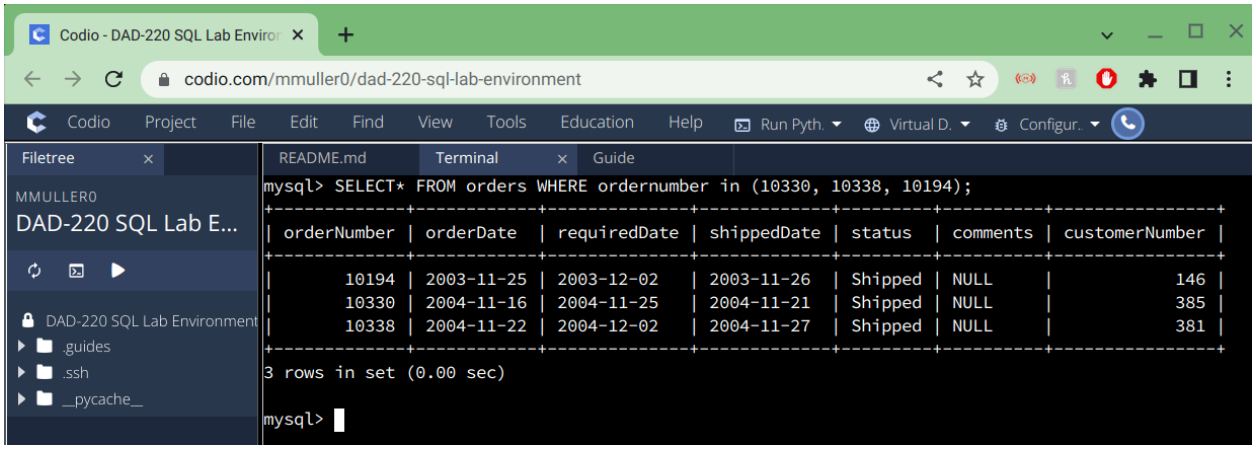
DAD 220 Cardinality and Targeted Data Template

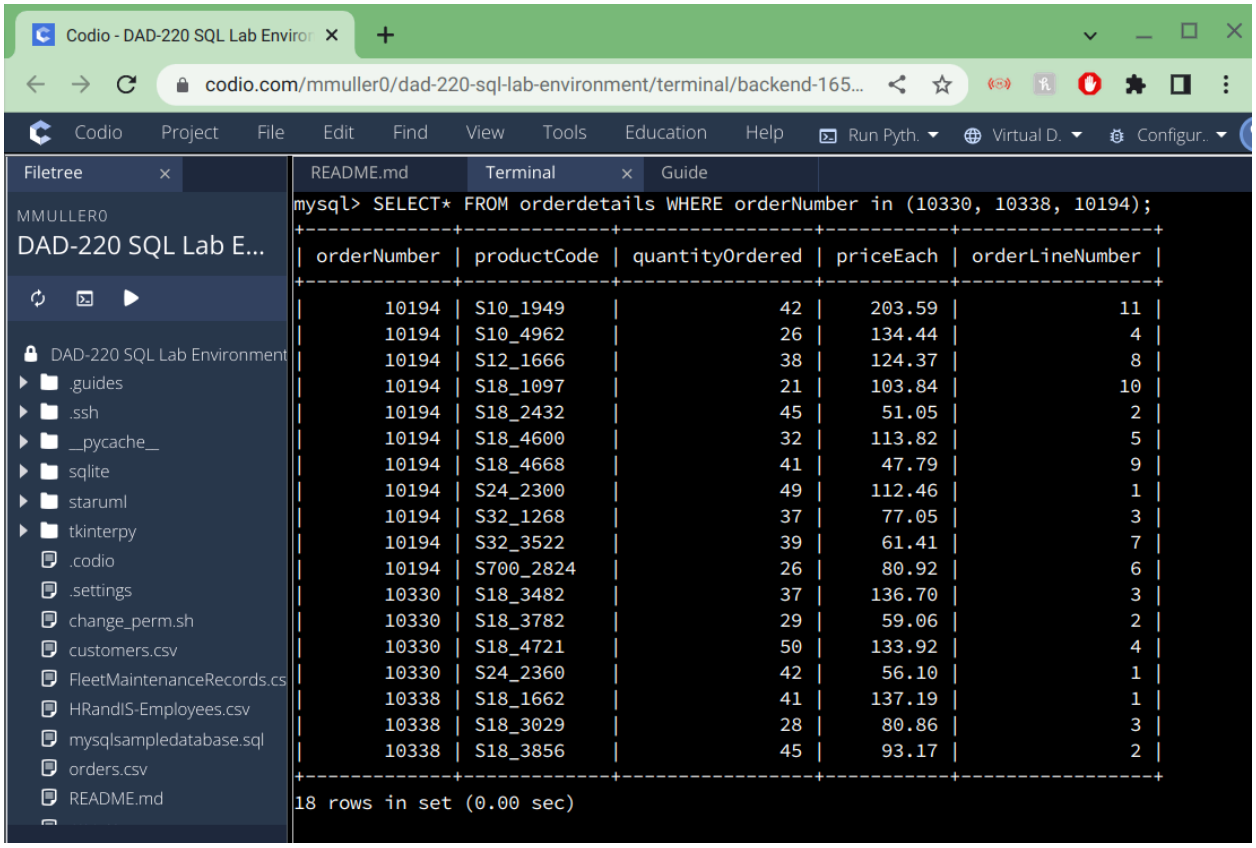
Replace the bracketed text in this template with your screenshots and responses. Then submit it to the Module Four Lab for submission, grading, and feedback. Screenshots should be sized to approximately one quarter of a page. Written responses should be in complete sentences. Rename this document by adding your last name to the file name before you submit.

1. **Retrieve employee tuples and identify the number of employees** in San Francisco and New York.



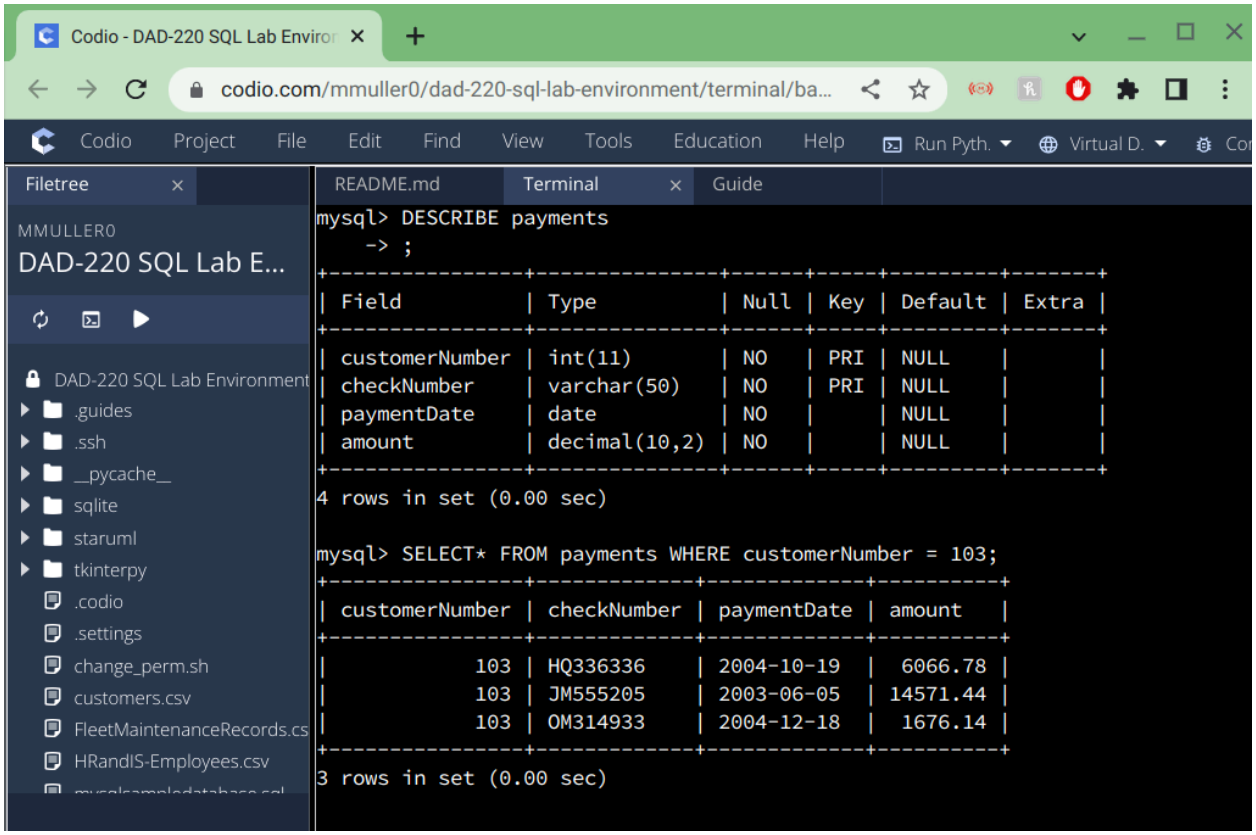
2. **Retrieve order details** for orderNumber 10330, 10338, and 10194 and **identify** what **type of cardinality** this represents in the entity relationship model.

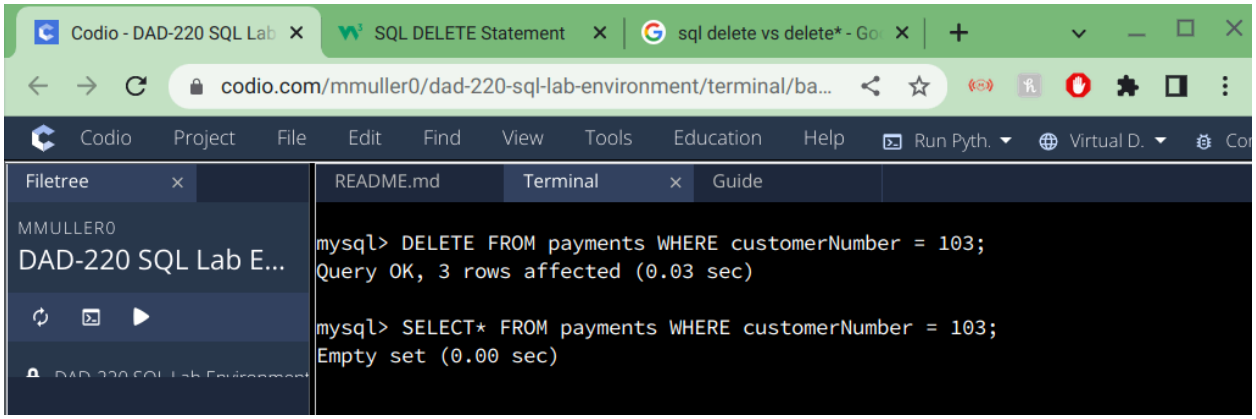




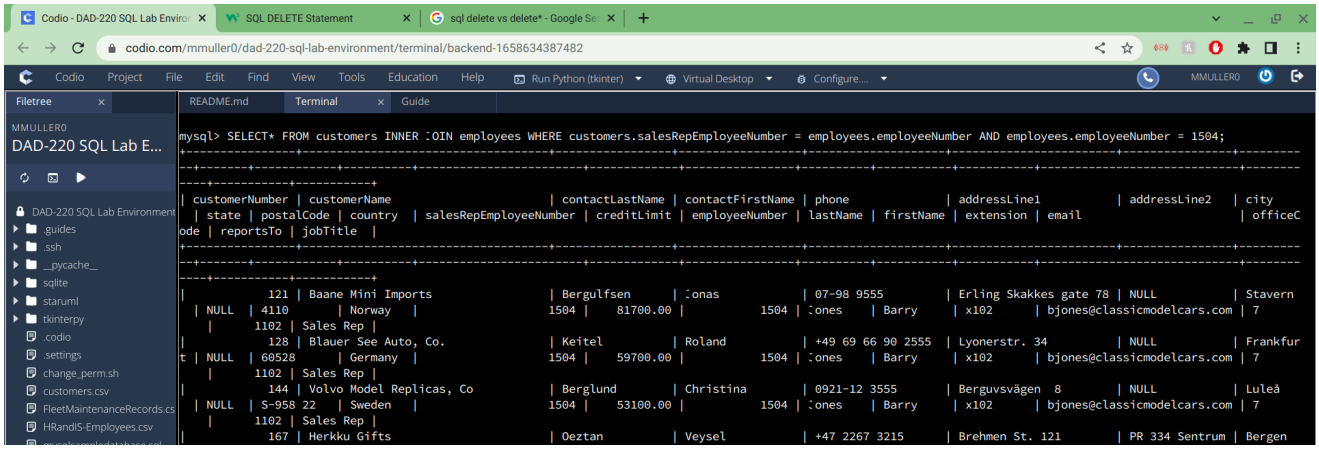
High cardinality as each orderNumber in the orders table is unique.
This relationship has One-to-Many cardinality as each unique orderNumber in the orders table can have multiple records in the orderdetails table.

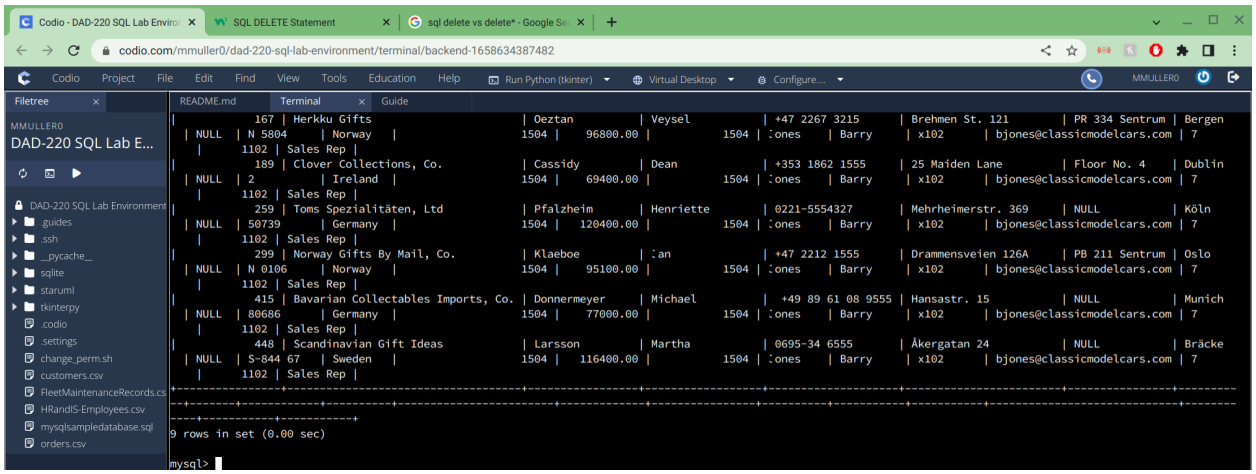
3. **Delete records** from the payments table where the customer number equals 103.





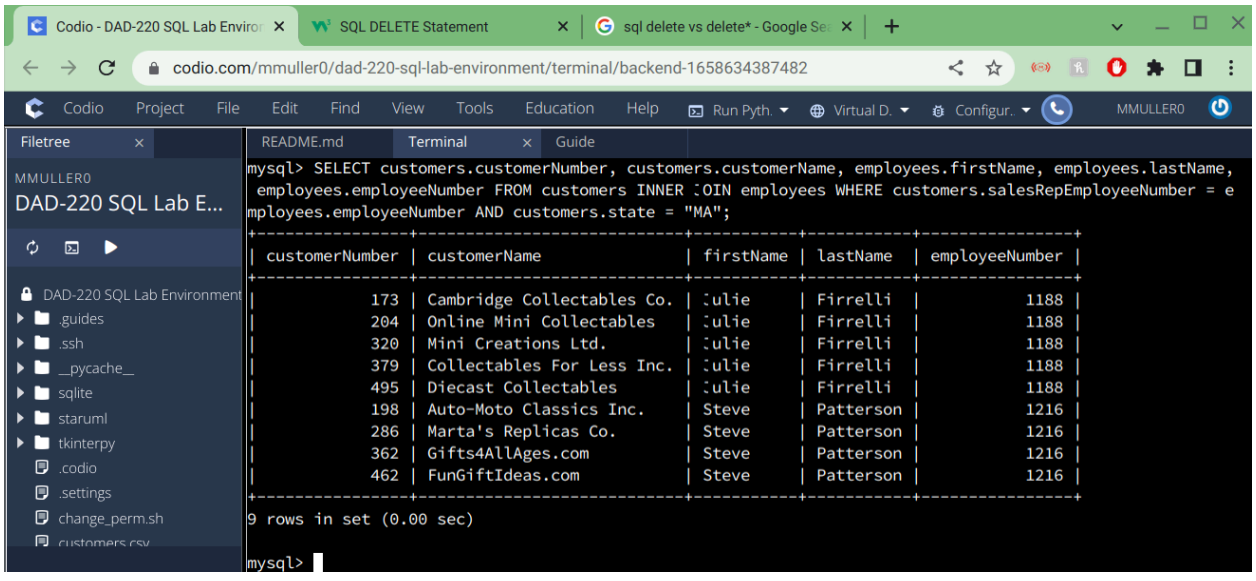
4. **Retrieve customer records** for sales representative Barry Jones and **identify** if the **relationships** are one-to-one or one-to-many**.**





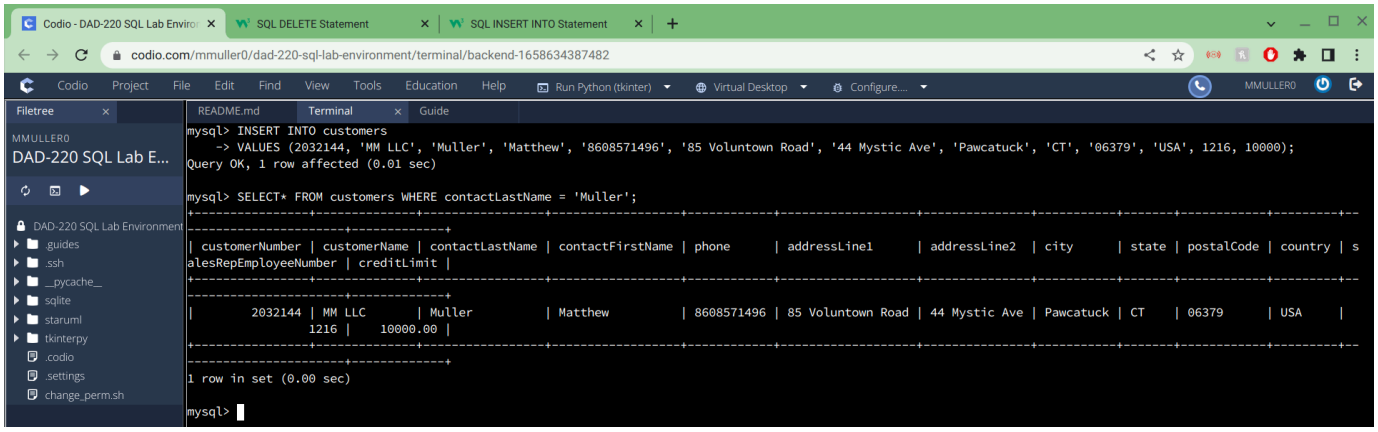
This represents a one-to-many relationship.

5. **Retrieve records** for customers who reside in Massachusetts and **identify their sales rep and the relationship of entities**. Identify if these entities demonstrate one-to-one or many-to-many relationships.



These entities demonstrate a many-to-many relationship.

6. **Add one customer record** with your last name using an INSERT statement. You may use the name of a celebrity or fictional character if you don't use your own name.



7. **Reflection**
    a. **Define how cardinality is applied** to the databases you've been working with and why different numbers of records returned from the different offices.
        i. Cardinality has been applied to the databases that I've been working with through the relationships between the different tables in a database. Cardinality refers to how many instances of different entities are related to each other. The one-to-many cardinality between offices and employees is the reason why different numbers of records returned from the different offices. Every one office entity can have any number of employees attached to it.
    b. **Compare and contrast** the different **queries** you ran and how cardinality applies to them.
        i. The different queries that I ran on the database displayed the different levels of cardinality in the relationships between tables in the database. For example, the relationship between orders and orderdetails is one-to-many, which was exemplified by the query that returns the orderdetails of items with certain orderNumbers. This contrasts with the relationship between sales reps and customers, which is many-to-many.
    c. **Describe two** of the crucial **benefits of cardinality** in this type of database.
        i. Cardinality helps to link records in different tables together, providing improved ability to search the data.
        ii. It helps to tell us if values are unique or if they are duplicates.