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**06/06/2021**

**Exercise 5 Questions:**

1. Use the provided Cypher script to create the graph database

    a. You could use any names for your project and the graph database. -done

    b. Copy the ENTIRE Cypher code in the script and paste it in ne4oj$ prompt and then click the blue play button on the right. -done

    c. (DO NOT copy and paste one line at a time)  - done

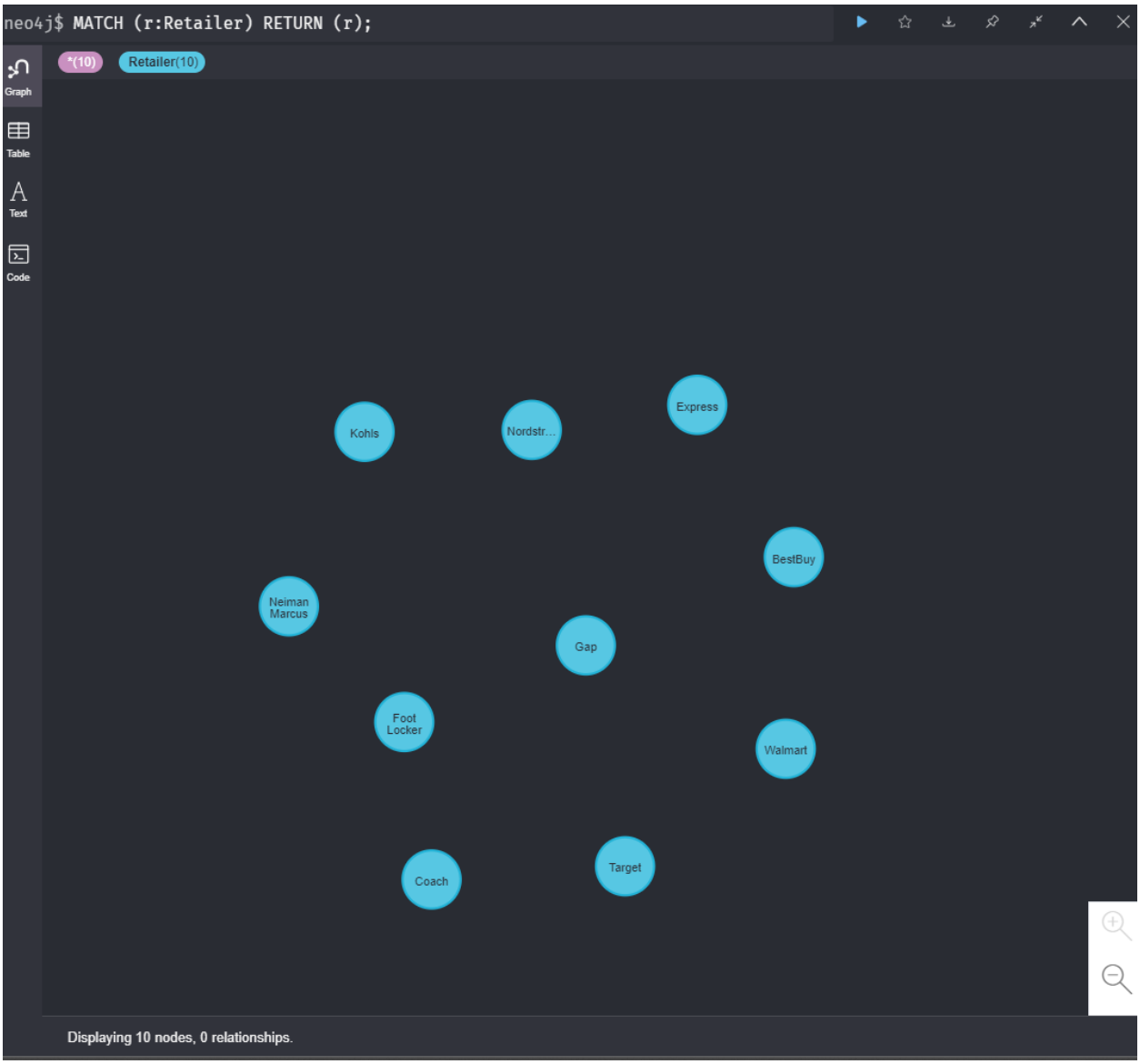
    d. Run the command below. Find the Customer Ashlee Reid and pull the node to the far left of the screen. Include a screen capture of this view to show you were able to load the database (6 points)

```
MATCH (n) RETURN (n);
```


2. Execute the following Cypher code to get the list of retailers: (1 point)

MATCH (r:Retailer)

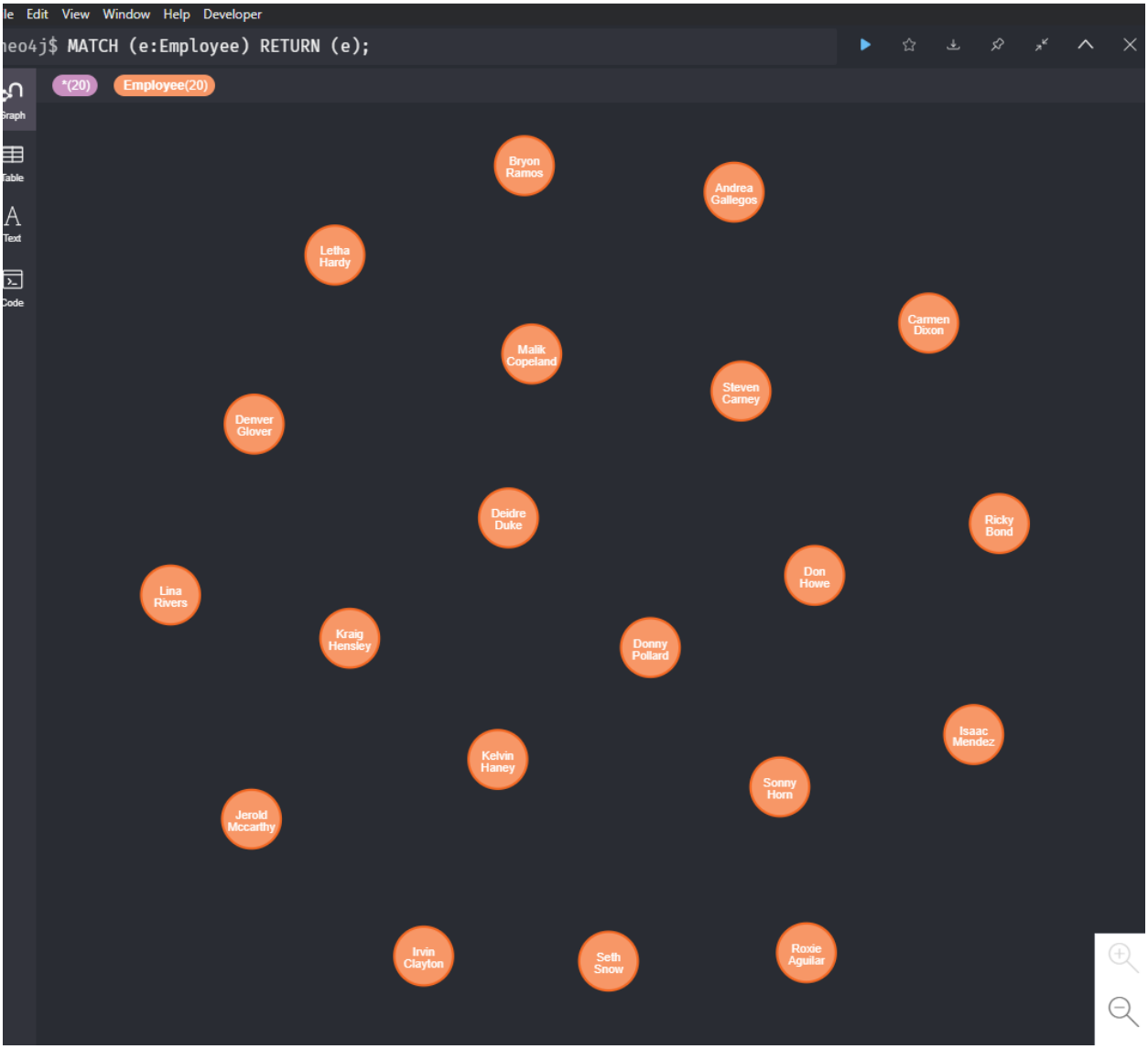
RETURN (r);




3. Execute the following Cypher code to the get the list of employees: (1 point)

MATCH (e:Employee)

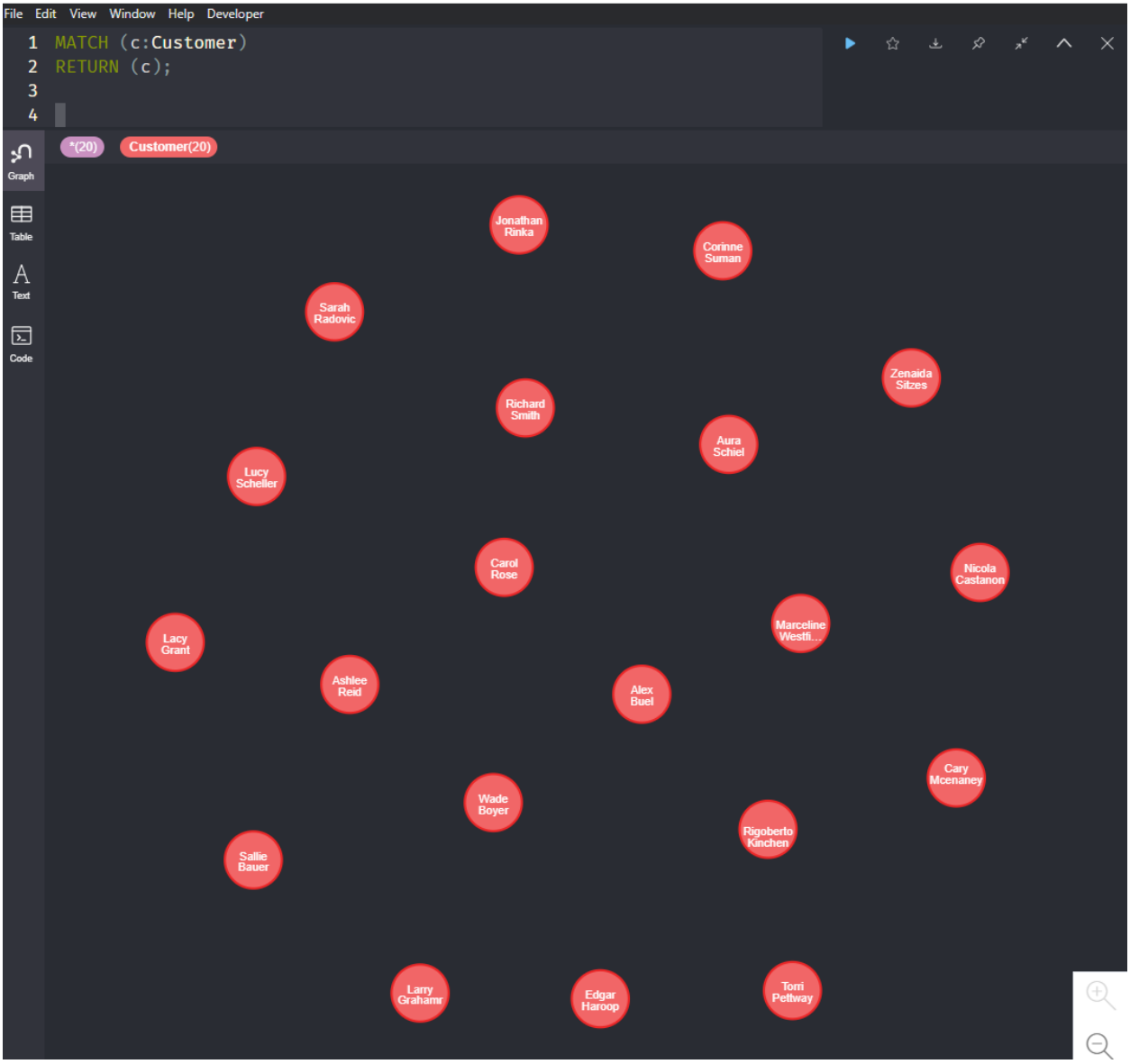
RETURN (e);




4. Execute the following Cypher code to the get the list of customers: (1 point)

MATCH (c:Customer)

RETURN (c);




5. Execute the following Cypher code to the get the list of all disputed transactions: (1 point)

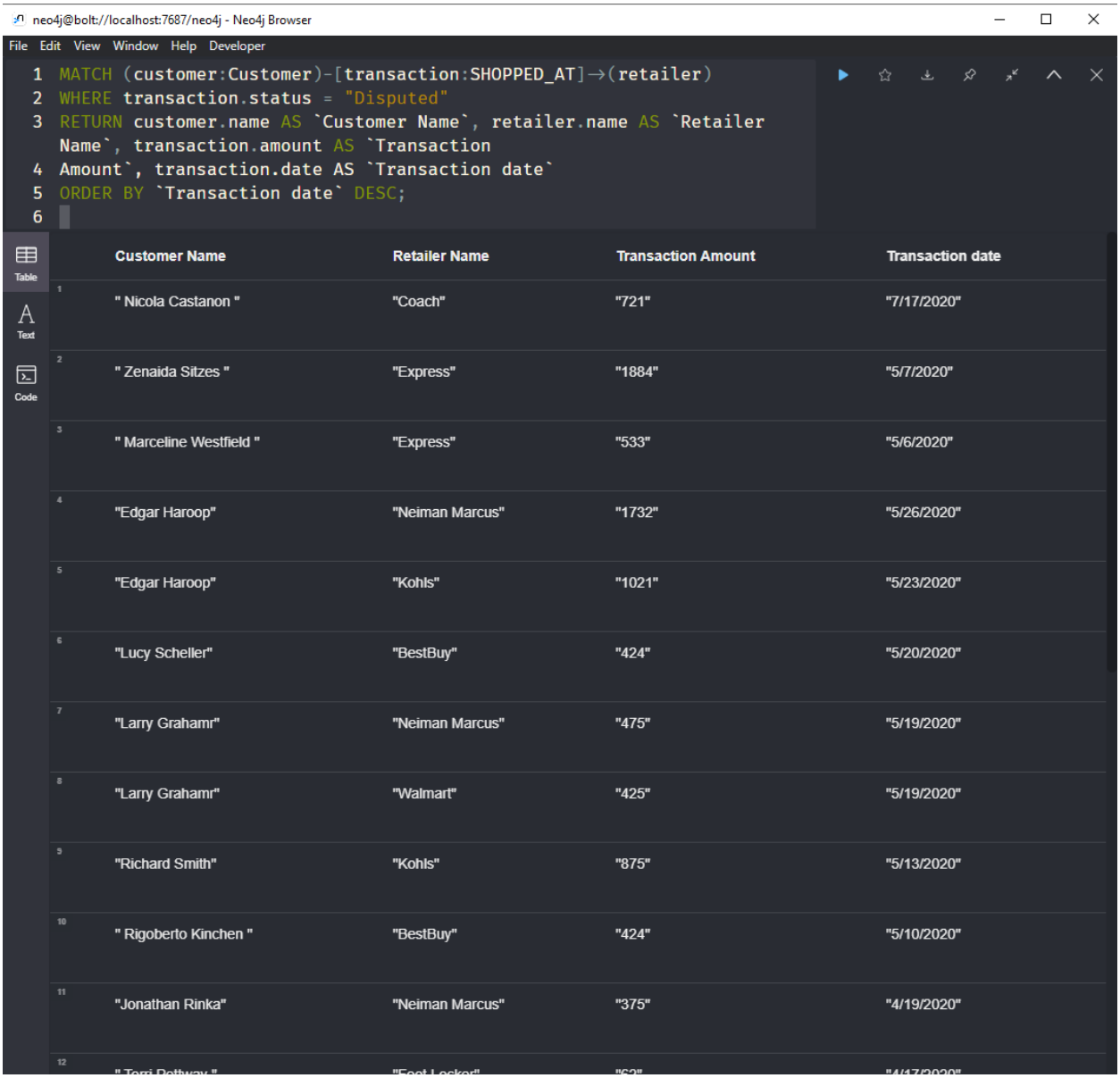
MATCH (customer:Customer)-[transaction:SHOPPED_AT]->(retailer)

WHERE transaction.status = "Disputed"

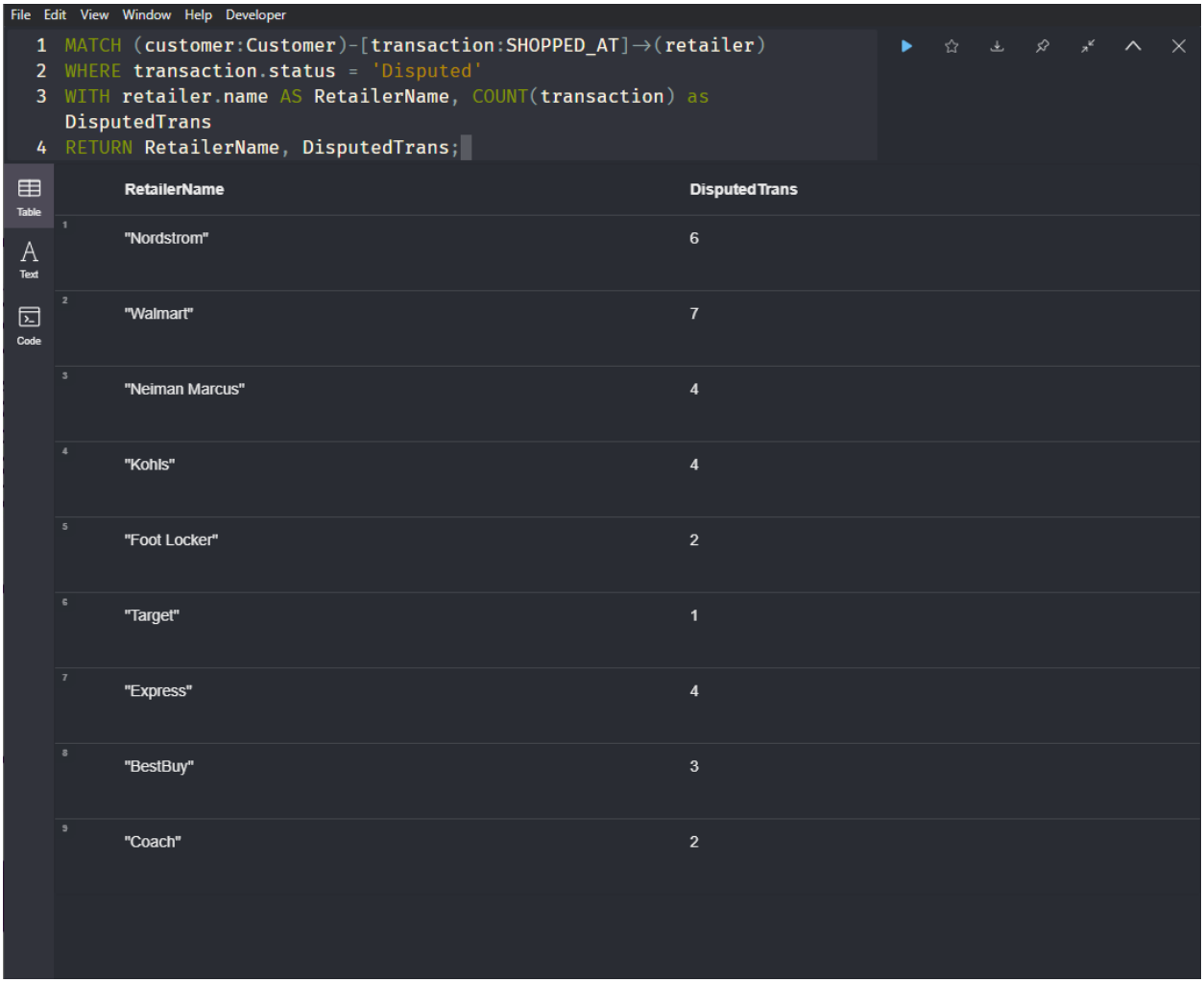
RETURN customer.name AS `Customer Name`, retailer.name AS `Retailer Name`, transaction.amount AS `Transaction

Amount`, transaction.date AS `Transaction date`

ORDER BY `Transaction date` DESC




6. Write the Cypher code to get the number of disputed transactions for every retailer (4 points)




7. Write the Cypher code to get the number of disputed transactions and the list of customer names for these disputed transaction for every retailer (4 points)

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```
MATCH (customer:Customer)-[transaction:SHOPPED_AT]→(retailer)
WHERE transaction.status = 'Disputed'
WITH retailer.name AS RetailerName, customer.name AS CustomerName,
COUNT(transaction) as DisputedTrans
RETURN RetailerName, count(DisputedTrans) as Total_Disputed_Trans,
collect(CustomerName) as Customer_List
Order By Total_Disputed_Trans DESC;
```

Table Text Code

| | RetailerName | Total_Disputed_Trans | Customer_List |
|---|---|---|---|
| 1 | "Nordstrom" | 6 | ["Edgar Haroop", " Rigoberto Kinchen ", " Zenaida Sitzes ", " Corinne Suman ", "Sarah Radovic", "Lacy Grant"] |
| 2 | "Walmart" | 6 | ["Edgar Haroop", " Rigoberto Kinchen ", " Zenaida Sitzes ", "Jonathan Rinka", "Ashlee Reid", "Larry Grahamr"] |
| 3 | "Neiman Marcus" | 4 | ["Edgar Haroop", " Aura Schiel ", "Jonathan Rinka", "Larry Grahamr"] |
| 4 | "Kohls" | 4 | ["Edgar Haroop", " Cary Mcenaney ", "Jonathan Rinka", "Richard Smith"] |
| 5 | "Express" | 4 | [" Rigoberto Kinchen ", " Marceline Westfield ", " Zenaida Sitzes ", "Carol Rose"] |
| 6 | "BestBuy" | 3 | [" Rigoberto Kinchen ", " Zenaida Sitzes ", "Lucy Scheller"] |
| 7 | "Foot Locker" | 2 | [" Torri Pettway ", "Sallie Bauer"] |
| 8 | "Coach" | 2 | [" Nicola Castanon ", "Richard Smith"] |
| 9 | "Target" | 1 | [" Torri Pettway "] |

8. Write the Cypher code to get the number of disputed transactions for every customer that has more than one disputed transaction (4 points)

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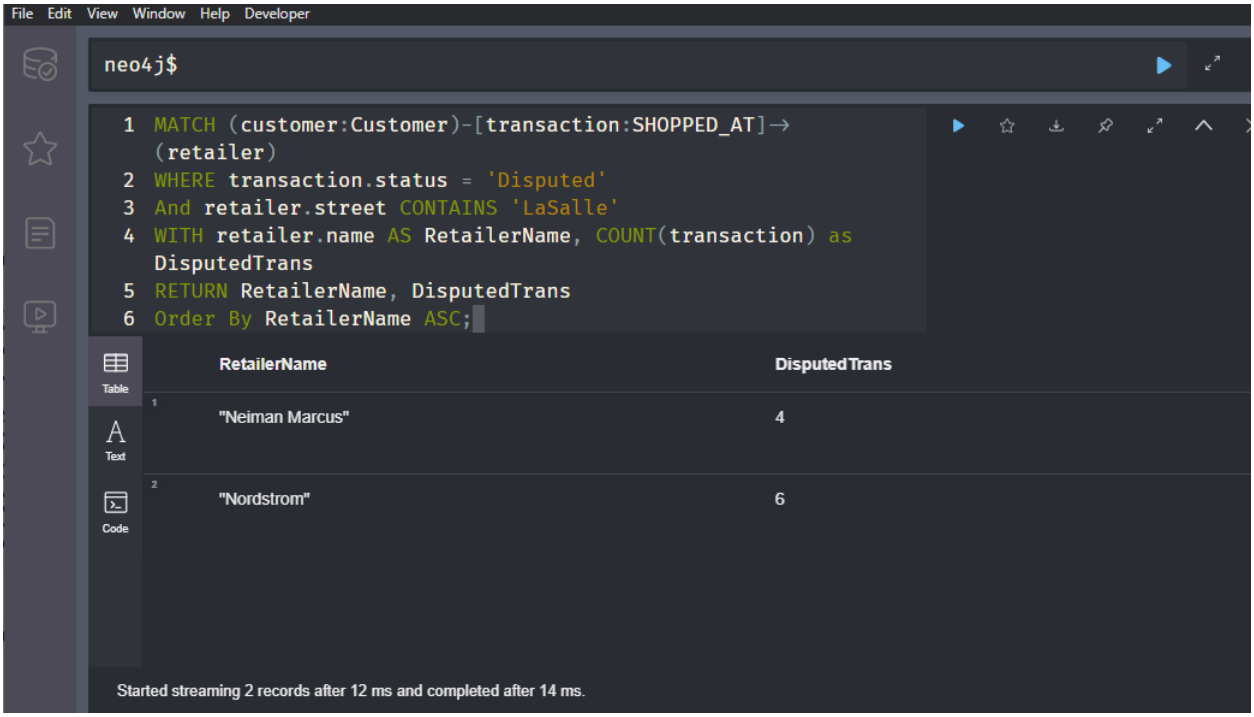
```
1 MATCH (customer:Customer)-[transaction:SHOPPED_AT]→(retailer)
2 WHERE transaction.status = 'Disputed'
3 WITH customer.name AS CustomerName, COUNT(transaction) as
  DisputedTrans
4 Where DisputedTrans>1
5 RETURN CustomerName, DisputedTrans
6 Order By DisputedTrans DESC;
```

Table | Text | Code

| | CustomerName | DisputedTrans |
|---|---|---|
| 1 | "Edgar Haroop" | 5 |
| 2 | " Rigoberto Kinchen " | 4 |
| 3 | " Zenaida Sitzes " | 4 |
| 4 | "Jonathan Rinka" | 3 |
| 5 | " Torri Pettway " | 2 |
| 6 | "Richard Smith" | 2 |
| 7 | "Larry Grahamr" | 2 |

9. Write the Cypher code to get the list of stores on LaSalle street that have disputed transactions and the number of disputed transactions for every store; the store list must be sorted by store name in ascending order. (4 points)




10. Write the Cypher code to get the list of Employees who work in at least 2 stores where disputed transactions were reported in these retailers (4 points)

```
MATCH (customer:Customer)-[transaction:SHOPPED_AT]->(retailer)
Match (employee:Employee)-[worked:WORKS_AT]->(retailer)
WITH employee.name AS EmployeeName, COUNT(Distinct retailer.name) as num_stores
Where num_stores >= 2
With COUNT(transaction.status ='Disputed') as disp_tran
Where disp_tran > 0
Return collect(EmployeeName);
```