Name: Natcha Jengjirapas

Student ID:85939811

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Q1:

A:

A picture containing graphical user interface

Description automatically generated

B:

A screenshot of a computer

Description automatically generated with medium confidence

C:

Graphical user interface

Description automatically generated

Q2:

Order node have Work For, For, Fulfill, Contain, Place, Used in, Contain, and Own. The labels that this node connected to are shopper, customer, store, orderItem, and vehicle.

Directions of each relationship:

|  |  |
| --- | --- |
| Name of relationship | Directions |
| Contain | (Order) 🡪 (OrderItem) |
| For | (Order) 🡪 (Store) |
| Fulfill | (Order) 🡨 (Shopper) |
| Place | (Order) 🡨 (Customer) |
| Used\_In | (Order) 🡨 (Vehicle) |

A screenshot of a computer

Description automatically generated with medium confidence

Q3:

Query:

MATCH (v:Vehicle)

WITH v LIMIT 1000

UNWIND (keys(v)) AS vKeys

RETURN DISTINCT vKeys

Results (screenshot below):

Table

Description automatically generated with medium confidence

Q4 A:

Query:

MATCH (o: OrderItem)

RETURN o

ORDER BY o.selling\_price DESC

LIMIT 10

Results (screenshot below):

Text

Description automatically generated

Q4 B:

Query:

MATCH path = ()-[:FOR]->(:Store {name: 'Sheetz'})

RETURN path

LIMIT 2

Results (screenshot below):

Text

Description automatically generated

Q4 C:

Query:

MATCH (c:Customer)

WHERE NOT EXISTS((c)-[:PLACE]->(:Order))

RETURN count(\*)

Results (screenshot below):

Graphical user interface

Description automatically generated

Q4 D:

Query:

MATCH (o:Order {order\_id: 'U7GWS'})-[:CONTAIN]->(o1:OrderItem)-[:ASSOCIATED]->(p:Product)

RETURN p.name

Results (screenshot below):Graphical user interface, text

Description automatically generated

Q4 E:

Query:

Match (c:Customer)-[:PLACE]->(o:Order)-[:FOR]->(s:Store)

WHERE size((:Order)-[:FOR]->(s)) < 10

RETURN c.user\_id

ORDER BY c.user\_id

LIMIT 10

Results (screenshot below):

Chart

Description automatically generated with low confidence

Q4 F:

Query:

Match (s:Shopper)

where s.capacity > 4 and size((s)-[:FULFILL]->(:Order)) > 5

return s.user\_id, s.capacity, size((s)-[:FULFILL]->(:Order)) as Order\_count

order by s.user\_id

limit 10

Results (screenshot below):

Calendar

Description automatically generated with low confidence

Q4 G:

Query:

match (c1:Customer)-[:PLACE]-(:Order)-[:FOR]->(s:Store {store\_id: '2TM62'})<-[:FOR]-(:Order)-[:PLACE]-(c2:Customer)

WHERE size((c1)-[:PLACE]-(:Order)-[:FOR]->(s)) >= 2 and

size((c2)-[:PLACE]-(:Order)-[:FOR]->(s)) >= 2 and

id(c1) > id(c2)

return distinct c1.first\_name, c2.first\_name

Order by c1.first\_name asc, c2.first\_name asc

limit 10

Results (screenshot below):

Diagram

Description automatically generated

Q4 H:

Query:

match (s:Shopper)-[:FULFILL]-(:Order)-[:PLACE]-(c:Customer) with s, c

match (c)-[:FULFILL]-(:Order)-[:PLACE]-(s)

where id(s) > id(c)

return distinct s.first\_name, c.first\_name

Order by s.first\_name asc, c.first\_name asc

limit 10

Results (screenshot below):

Table

Description automatically generated with medium confidence

Q4 I:

Query:

match (s:Shopper)-[:FULFILL]-(:Order)-[:PLACE]-(c:Customer) with s, c

match (c)-[:FULFILL]-(:Order)-[:PLACE]-(s)

where id(s) > id(c)

create (s)-[:SERVE]->(c), (c)-[:SERVE]->(s)

Results (screenshot below):

Text

Description automatically generated

Q4 J:

Query:

match (n) where n:Customer and n:Shopper with n

match (s:Shopper {user\_id:'SVT7J'}),

p = shortestpath((s)-[\*1..10]-(n))

where s<>n return max(length(p))

Results (screenshot below):

Graphical user interface, application

Description automatically generated

Q4 K:

Query:

match (n) where n:Customer and n:Shopper with n

match p1 = (s:Shopper {user\_id:'SVT7J'})-[r\*2]-(n)

return distinct n.user\_id

Results (screenshot below):

A picture containing diagram

Description automatically generated