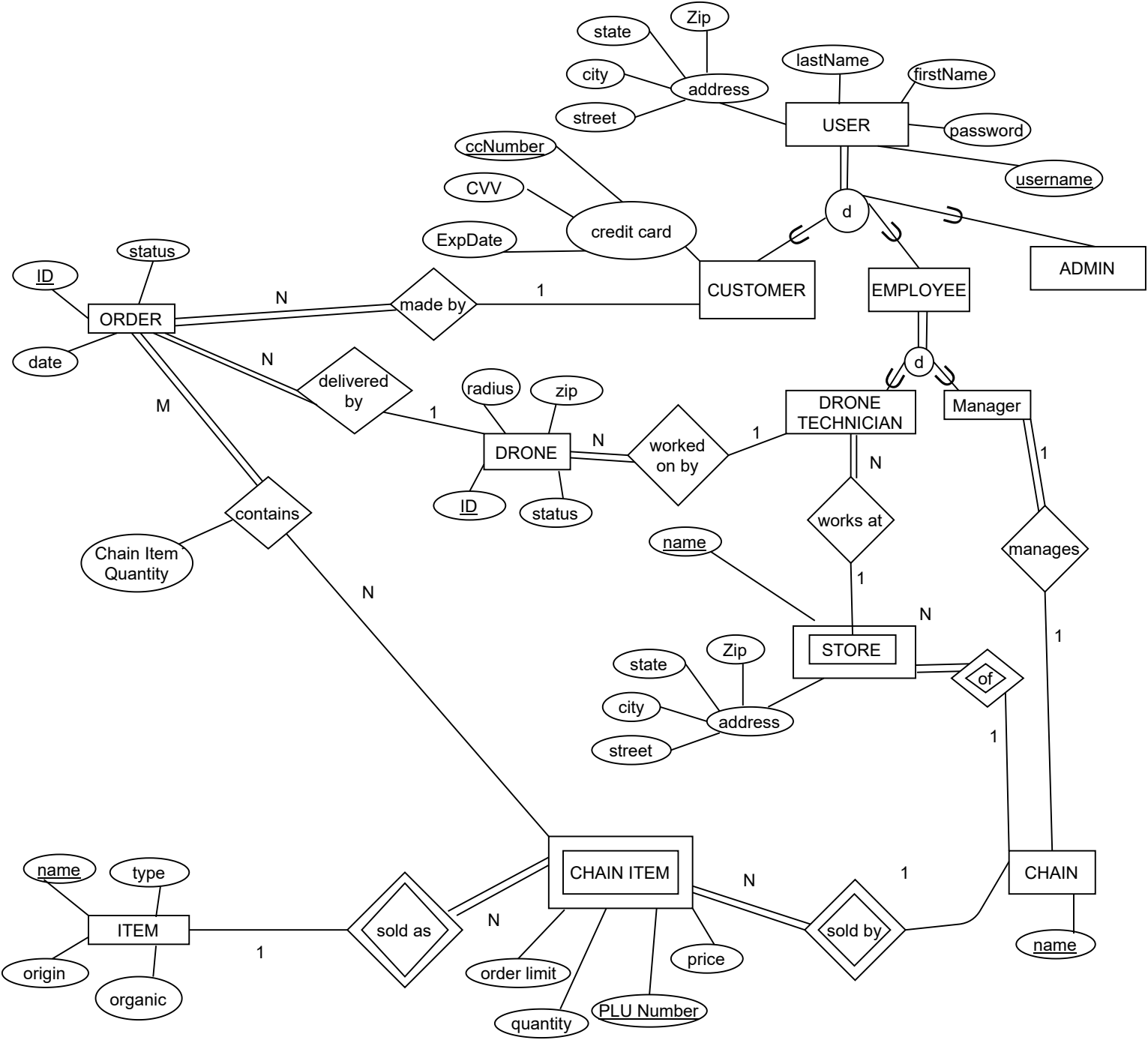


CS 4400 Phase I

Neo Pak

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CS4400 Phase 1: Logical Constraints

Customer

- Customers may only shop at one store at a time
- If there is any quantity available within the chain, a customer from any store within the chain can order the item

Employee

- If an employee registers by entering both chain and store name, they are registered as a drone technician
- When an employee registers by entering only a chain name, they are registered as a chain manager

Drone Technician

- Both the drone ID and the drone technician should be assigned together. You cannot assign one by itself.

Drone

- The drone should only be operated to fulfill orders for stores that have a matching zip code

Grocery Chain

- Chain Items must only include general Item options that have already been created by an Admin

CS4400 Phase 1: Assumptions

Customer Holds Credit Card

1. Customers must have a credit card to be able to pay for what they buy and every credit card that exists has to be owned by a customer
2. Each credit card can only belong to 1 customer

Customer Places Order

3. Each customer can place many orders, but each order can only belong to one customer.
4. Each placed order must be placed by a customer

Stores Consists of Grocery Chain

5. Each store can only be owned by 1 grocery chain but a grocery chain can consist of many stores
6. Every store must belong to a grocery chain

Chain Manager Manages Grocery Chain

7. A chain manager can only manage 1 chain, but doesn't have to manage a chain.
8. Every grocery chain needs a chain manager

Grocery Chain Contains Chain Item

9. Each grocery chain can have many chain items but each chain item can only belong to one grocery chain
10. Every chain item must belong to a grocery chain but not all grocery chains have to have chain items

Drone Technician Works for Store

11. Drone technicians can only work for 1 store but stores can have multiple drone technicians
12. Every store needs a drone technician

Drone Technician Operates Drones

13. Every drone has to be operated by a drone technician but not all drone technicians have to operate a drone
14. Every drone technician can operate many drones