

Problem Description

We aim to design a database that enables the pet store to operate and serve customers more efficiently.

One of our primary areas of focus is customer management. The database will store detailed customer information. Each customer may own one or more pets. The database should be able to update existing customer's information and register new customers. For each customer at the pet store, they may own one or more pets. Each pet is associated with a specific customer.

The other area of focus is product management. One customer may make multiple orders, and each order is associated with one specific customer.

Update with Redis

Redis will be used to store the most recent 10 changed orders

Redis Data Structures

I used the Redis Lists to record recently added or edited orders

key = "cache:orders"

value = {

order_date: order_date ("order:id:order_date"),

total_amount: total_amount("order:id:total_amount"),

customer_id: customer_id("order:id:customer_id"),

}

Nouns

Customer

- customerID
- firstName
- lastName
- email
- phone
- address

Pet

- petID
- *customerID*
- petName
- age
- species
- breed

Order

- orderID
- *customerID*
- orderDate
- totalAmount
- status

OrderDetails

- orderDetailID
- *orderID*
- quantity
- unitPrice

Verbs/Actions

Own

Customers own pets

Make

Customers make orders

Associated with

Orders are associated with order details

Business Rules

Each customer makes any number of orders

Each order is made by only one customer

Each pet is owned by only one customer

Each customer owns one or more pets

Each order has one or more order details

Each order detail belongs to only one order

Challenge Questions

Can many customers own one pet?