

Entities:

Person (super-type) (SO-specialized & overlapping)--- (sub-types): Employee, Customer, Owner

Attributes: ID, Fname, Lname, primary address, primary card, email

Order

Attributes: Order #, Shipping Info, Billing Info, Date, Note, Status

Shopping Cart

Attributes: Cart ID, CurrentPrice

Product

Attributes: Product ID, name, price, type, genre

Inventory

Attributes: Inv ID, type

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Relationships:

OwnsCart – Customer, Shopping Cart

Keeps track of who owns which cart

InCart – Shopping Cart, Product: ProductQuantity, TotalProdPrice

Keeps track of how much of a product is being added and the total price of that specific product being added to the shopping cart

Holds – Product, Inventory: QuantityInStock

Keeps track of how much of a specific product are in stock

Fulfills – Employee, Order

Keeps track of which employee is fulfilling which order

Places – Customer, Shopping Cart, Order: TotalPrice, TackingNumber

Creates an order, with a total price and tracking number, placed by a customer and their shopping cart

Inside – Order, Product: QuantityOfProducts

Keeps track of which products are inside an order and how many of each product

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Cardinalities:

Customer/ShoppingCart (1-1): each customer has one shopping cart, and each shopping cart can only have one owner

Employee/Order (1-m): each employee can be working on many orders, and each order should only have one employee working on it

ShoppingCart/Product (m-m): each shopping cart can have many products, and each product can be part of many shopping carts

Product/Inventory (m,m): each product is part of the inventory, and the inventory can have many products

Customer/ShoppingCart/Order (1-1-m): Each order has one customer and one shopping cart, and a customer and shopping cart can place many orders

Order/Product (m-m): Each order can have many products and each product can be part of many orders