Dog Groomers Database Implementation

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Database: Conceptual & Logical Database Design

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System Description

A local dog grooming business wants to create a database to manage information about customers, payments, dogs, appointments, grooming services, staff, stock, orders, and suppliers.

The dog grooming business offers a range of individual grooming services along with a selection of pet accessories that customers can choose to purchase.

The business is small, with a team of four: one owner/manager and three groomers. All staff, including the owner, are involved in grooming dogs, with the owner also responsible for managing the team.

Suppliers provide orders which contain the business' stock.

Customer details to be recorded include customerId, name, address, up to two phone numbers, and email address.

Payment details to be recorded include paymentId, payment date and amount.

Dog details to be recorded include dogId, name, and age.

Breed details to be recorded include breed name, size and hair type.

Appointment details to be recorded include appointment reference number, date, time, and feedback.

Staff details to be recorded include staffId, PPS number, name, address, up to two phone numbers, email address, and rate of pay per hour.

Grooming services to be recorded include serviceId, name of service, and price.

Stock details to be recorded include productId, product type, quantity, and price.

Stock is divided into three sub-types: Accessory, Consumables, and Equipment.

Accessory details to be recorded include product name and size.

Consumables details to be recorded include product name and expiration date.

Equipment details to be recorded include serial number, date ordered and service date.

Order details to be recorded include order number, order date, delivery date, and quantity.

Supplier details to be recorded include supplierId, name, address, up to two phone numbers and email address.

Each customer owns 0 or more dogs, and each dog is owned by one customer.

Each dog attends 0 or more appointments and each appointment is attended by one dog.

Each appointment is handled by 1 to 3 staff members and each staff member can handle 0 or more appointments at any given time. The manager manages 1 or more staff members.

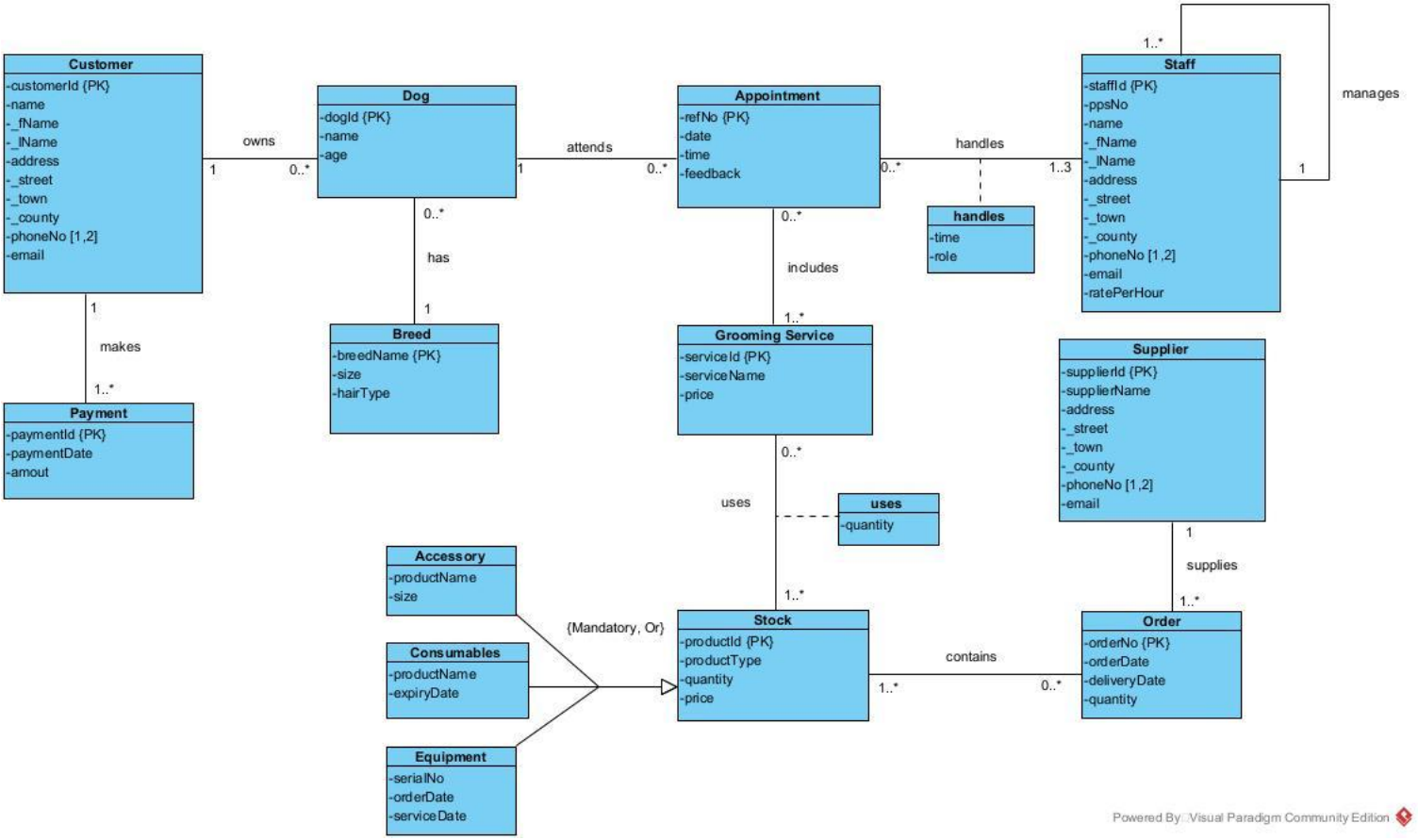
Each appointment includes 1 or more grooming services, and each grooming service can be a part of 0 or more appointments.

Each grooming service uses 1 or more items of stock, and each item of stock can be used in 0 or more grooming services.

Each supplier supplies 1 or more orders, and each order can be supplied by 1 supplier.

Each order contains 1 or more items of stock, and each stock is part of 0 or more orders.

Enhanced ER Diagram



Logical Design

Customer(customerId, fName, lName, street, town, county, email)

Primary key customerId

CustomerPhones(phoneNo, customerId)

Primary key phoneNo

Foreign key customerId references Customer(customerId)

Payment(paymentId, paymentDate, amount, customerId)

Primary key paymentId

Foreign key customerId references Customer(customerId)

Dog(dogId, name, age, customerId, breedName)

Primary key dogId

Foreign key customerId references Customer(customerId)

Foreign key breedName references Breed(breedName)

Breed(breedName, size, hairType)

Primary key breedName

Appointment(refNo, date, time, dogId)

Primary key refNo

Foreign key dogId references Dog(dogId)

Handles(refNo, staffId, time, role)

Primary key refNo, staffId

Foreign key refNo references Appointment(refNo)

Foreign key staffId references Staff(staffId)

Staff(staffId, ppsNo, fName, lName, street, town, county, email, ratePerHour, manager)

Primary key staffId

Foreign key manager references Staff(staffId)

StaffPhones(phoneNo, staffId)

Primary key phoneNo

Foreign key staffId references Staff(staffId)

Includes(refNo, serviceId)

Primary key refNo, serviceId

Foreign key refNo references Appointment(refNo)

Foreign key serviceId references Grooming Service(serviceId)

Grooming Service(serviced, serviceName, price)

Primary key serviceId

Uses(serviceId, productId, quantity)

Primary key serviceId, productId

Foreign key serviceId references Grooming Service(serviceId)

Foreign key productId references Stock(productId)

Equipment(productId, productType, quantity, price, orderDate, serviceDate)

Primary key productId

Accessory(productid, productType, quantity, price, productName, size)

Primary key productId

Consumables(productId, productType, quantity, price, prodName, expiryDate)

Primary key productid

Contains(orderNo, productid)

Primary key orderNo, productId

Foreign key orderNo references Order(orderNo)

Foreign key productid references Stock(productId)

Order(orderNo, orderDate, deliveryDate, quantity, supplierId)

Primary key orderNo

Foreign key supplierId references Supplier(supplierId)

Supplier(supplierId, supplierName, street, town, county, email)

Primary key supplierId

SupplierPhones(phoneNo, supplierId)

Primary key phoneNo

Foreign key supplierId references Supplier(supplierId)