

Report 1

CSC 775

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### **Project Report 1**

For the project I will be creating a simple database for a veterinary clinic that stores basic information about pets, owners, veterinarians, appointments, and vaccines.

#### **Task 1: Requirement Analysis**

The database stores information for a veterinary clinic. It needs to store data on each pet, the pet's owner, appointments, veterinarians, and vaccines. Vaccines need to have a unique vaccine event id (VID), date of administration, and type of vaccine. Vets must have an employee ID, first name, last name, home address, phone number, and medical license number. Each pet has a unique pet ID, first name, last name, age, gender, weight, species, and breed. Each owner has a unique owner ID, first name, last name, phone number, and address. Appointments must include a unique appointment id, exam room number, date, and time.

Each pet must have exactly one owner.

Each owner must have at least one pet.

Each pet has one or more appointments.

Each appointment is with exactly one pet.

Each appointment is administered by only one vet.

Each vet must administer at least one appointment.

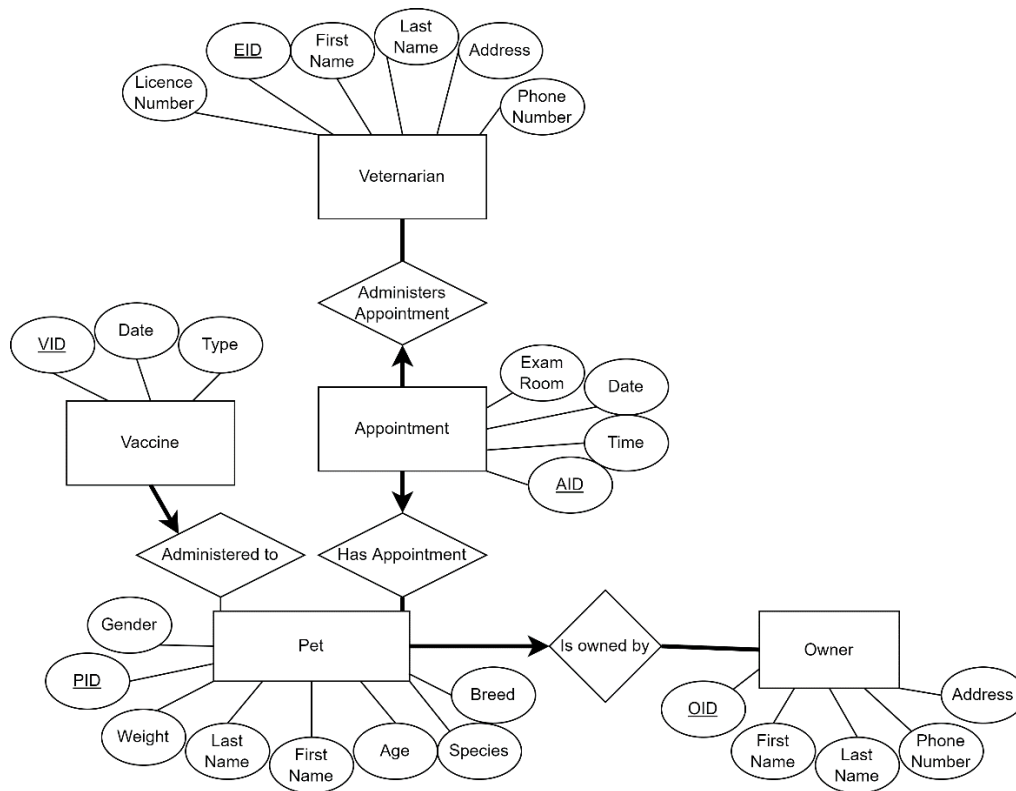
Each vaccine is administered to only one pet.

A pet can have zero or more vaccines.

## Task 2: Conceptual Design – Entity Relation diagram

Entities: pets, vets, owners, appointments, and vaccines

Relationships: vets administer appointments, pets have appointments, pets are owned by owners, and vaccines are administered to pets.



## Task 3: Logical Design

Pets(PID: char(10), first\_name: string, last\_name: string, gender: string, weight: float, age: int, species: string, breed: string)

Vets(EID : char(10), first\_name: string, last\_name: string, address: string, phone\_number: char(10), license\_number: char(10))

Owners(OID: char(10), first\_name: string, last\_name: string, address: string, phone\_number: char(10))

Appointments(AID: char(15), exam\_room: int, date: date, time:time)

Vaccines(VID: char(15), date: date, type: string)

Vet\_appointments(EID, AID)

Pet\_appointments(PID, AID)

Pet\_vaccines(VID, PID)

Pet\_owners(PID, OID)