Section: DBS211-NBB -Group 7

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Milestone 1 – Project Idea and Proposal

Milestone 2 – Data Design

Introduction:

As the number of people keeping pets increases, the requirement of the pet clinic is becoming more demanding, the connection between customers, clinics and veterinarians bind tightly. But according to the investigation into this industry, the process of making appointments for surgery and finding professional veterinarians for certain illnesses is complicated. The service of different clinics varies based on the veterinarians. So, the pet clinic calls for an application that could manage and simplify the process of visiting the clinic. As pet lovers, we think we can create a database to simplify the process and keep the medical history record and more information which is related to the medical records for each pet. For the clinic side, they can use data to upgrade their business model and update their services.

Problem Statement:

In this industry, both the pet clinic and pet owners need a precise record to trace the pet’s medical history. And the database will elevate the efficiency of visiting pet clinics.

Solution:

We are assuming that the application will combine the function of making appointments based on the services and veterinarians. We analysis the connections in this industry, so we will recognize the entities first. The entities will cover all the major functions in this application, providing the application sufficient data to implement the functions, and then we will figure out the relationships between each other. So far, the database framework will be built up. The details of each entity, we plan on dividing the whole

database into three parts (client, services, and veterinarian), each member will oversee one part, and fulfill the attributes of entities. The last step is that we finalize the design of database by connecting each part, carry out a mock implementation of the application to test our design.

In summary, the database will decompose the large and complicated data into several functional parts, it is able to support various functions via relationships between entities, it would facilitate the efficiency of the medical process.

Requirements:

According to the design of our database, the app can meet the following requirements:

- User login/registration.
- Browse services details.
- Check the available timeslot.
- Make appointments based on available time.
- Set up Appointment reminder.
- Make changes/cancel existing appointments.
- Check Appointment history.
- Profile management/editing.
- Business analysis

After creating a profile for their own, clients can store their pet’s information on the app and make appointments on their own instead of calling the clinic and making appointments with the help of a staff. Appointments can be made any time, not only when the clinic is open. Also, clients can check previous appointments and medical records through the app with no delay in case of an emergency. This can make the appointment making processes and medical record searching easier.

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Milestone 2 – Data Design

Business Rule:

1. Each clinic can have one or more veterinarians.

2. Each veterinarian can only work in one and only one clinic.

3. Each owner can have one or more pets.

4. Each pet can have one and only one owner.

5. Each pet can have zero (new pets that just registered to this clinic but didn’t make any appointment yet) or more appointments records.

6. Each appointment can only serve one pet.

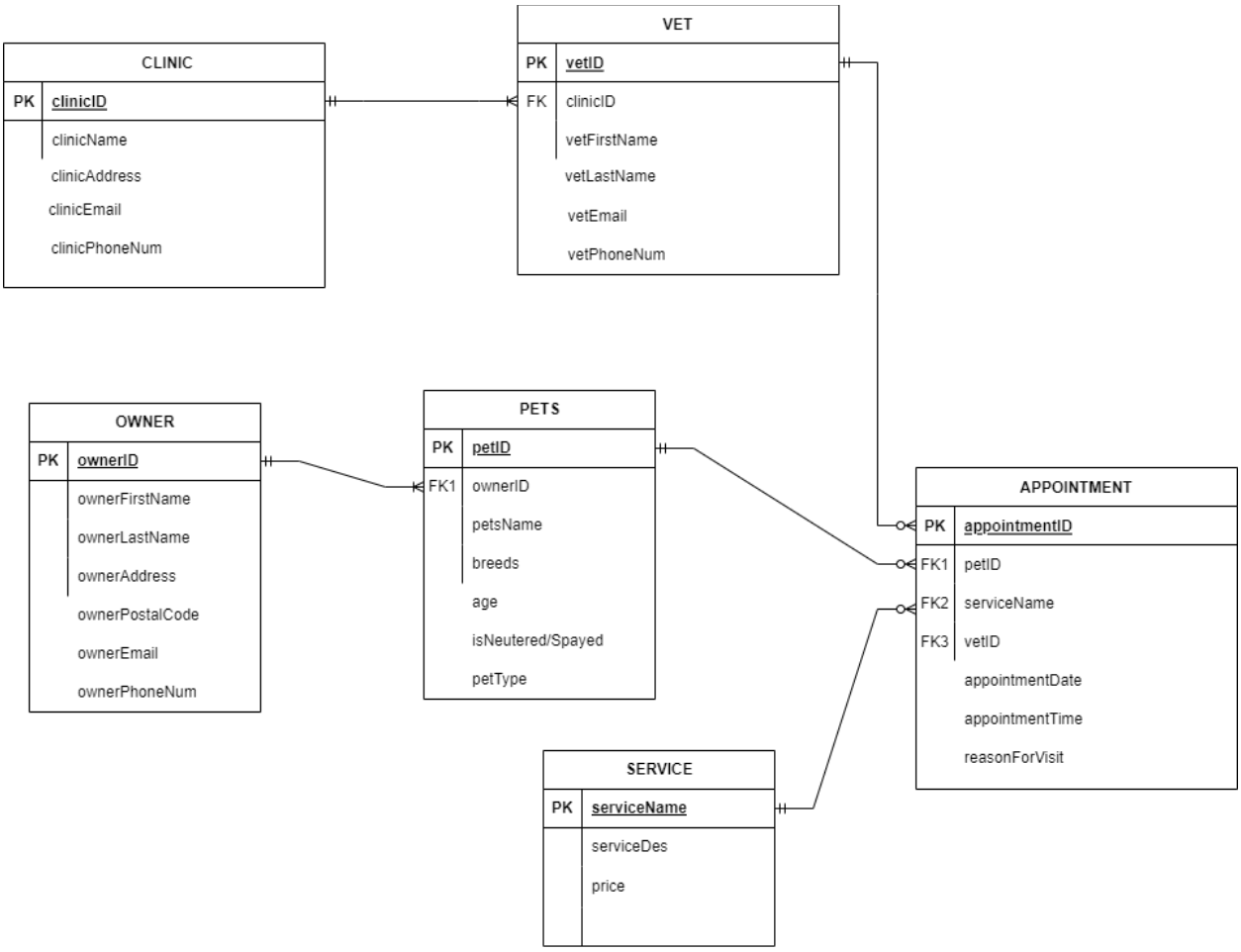
7. Each appointment can only be taken care of by one veterinarian.

8. Each veterinarian can be responsible for zero (newly hired veterinarian) or more appointments.

9. Each appointment can only provide one service.

10. Each service can be booked for zero (new services) or more appointments.

ERD:



Business Rule

1. Each clinic can have one or more vets.
2. Each vet can only work in one and only one clinic.
3. Each owner can have one or more pets.
4. Each pet can have one and only one owner.
5. Each pet can have 0 (new pets that just registered to this clinic but didn't make any appointment yet) or more appointments records.
6. Each appointments can only serve one pet.
7. Each appointment can only be taken care of by one vet.
8. Each vet can be responsible for 0 (new hired vet) or more appointments.
9. Each appointment can only provide one service.
10. Each service can be booked for 0 (new services) or more appointments.

Data Dictionary:

TABLE: Clinic

Column	Data Type	Size, Precision	Default	PK/FK	Required	Range	Sample Data	Notes
clinicID	NUMBER	5		PK	Y	1-99999	12345	The unique identifier
clinicName	String	30			Y		"Seneca Pet Clinic"	
clinicAddress	String	50			Y		"3020 Finch Avenue"	
clinicEmail	String	50			Y		petclinic999@gmail.com	
clinicPhoneNum	NUMBER	11			Y	1234567890-9999999999	4163057799	Assuming North American phone number

TABLE: Veterinarians

Column	Data Type	Size, Precision	Default	PK/FK	Required	Range	Sample Data	Notes
vetID	NUMBER	5		PK	Y	1-99999	12345	The unique identifier
clinicID	NUMBER	5		FK	Y	1-99999	12345	Connect to Clinic Table
vetFirstName	String	25			Y		"Tony"	
vetLastName	String	25			Y		"Stark"	
vetEmail	String	30			Y		doctor999@gmail.com	
vetPhoneNum	NUMBER	11			Y	1234567890-	4163057799	Assuming

						999999 99999		North American phone number

TABLE: Services

Column	Data Type	Size, Precision	Default	PK/ FK	Required	Range	Sample Data	Notes
serviceName	String	30		PK	Y		"ultrasound"	The unique identifier
price	NUMBER	6,2			Y	1-999999	102.33	Unit: Canadian dollar
serviceDes	String	100			Y		"Diagnostic imaging, guiding surgeries"	The service introduction

TABLE: Owners

Column	Data Type	Size, Precision	Default	PK/ FK	Required	Range	Sample Data	Notes
ownerId	NUMBER	5		PK	Y	1-99999	12345	The unique identifier
ownerFirstName	String	25			Y		"Tony"	
ownerLastName	String	25			Y		"Stark"	
ownerEmail	String	30			Y		peter99@gmail.com	
ownerAddr	Strin				N		"2030	

ess	g						Markham Road"	
ownerPostalCode	String	6			N		L6E0N4	
ownerPhoneNum	NUMBER	11			Y	1234567890-99999999999	14163057799	Assuming North American phone number

TABLE: Pets

Column	Data Type	Size, Precision	Default	PK/FK	Required	Range	Sample Data	Notes
petID	NUMBER	5		PK	Y	1-99999	12345	The unique identifier
ownerId	NUMBER	5		FK	Y	1-99999	12345	The connection to Owners
petsName	String	25			Y		"Stark"	
breeds	String	25			Y		"Husky"	
age	NUMBER	2			Y	1--99	12	
isNeutered/Spayed	String	5			Y		Yes	
petType	String	25			Y		"Dog"	

TABLE: Appointments

Column	Data Type	Size, Precision	Default	PK/FK	Required	Range	Sample Data	Notes
appointID	NUMBER	5		PK	Y	1-99999	12345	The unique identifier
petID	NUMBER	5		FK	Y	1-99999	12345	The connection to PETS
serviceName	NUMBER	5		FK	Y	1-100001	12345	The connection to Service
vetID	NUMBER	5		FK	Y	1-100002	12345	The connection to veterinarians
appointmentDate	Date				Y		3/22/2023	Appoint Date (YYYY-MM-DD)
appointmentTime	String	10			Y		10:30 AM	Appoint Time (HR:MN A/PM)
reasonForVisit	String	1000			Y		"Regular checkup"	