

DRAFT PROPOSAL

DATABASE CAPSTONE

ORGANIZATIONAL DETAILS

The organization I'm designing a database for is a so-called small business called **Babler's Veterinary Clinic¹**, which provides medical services to domesticated pets.

This document provides an overview of the types of services provided by Babler's Veterinary Clinic [BVC or just "the Clinic"], followed by some of the challenges that a functional database will need to overcome. These challenges are both related to the fact that BVC functions like any other small business with invoices etc.; along with, unique critical requirements related to veterinary clinical settings (such as pharmacological tracking).

This document will lay out as much detail about the overall staff and services as relevant not only to focus the elicitation of requirements, but as a reminder that databases are designed for the humans that use them. Some of the requirements listed in this document will be listed as user-stories, and some will be listed as obvious observations based on business operations. Without considering the operating environment and userbase of a database any database structure is doomed to ultimately fail.

As the database is developed no-doubt new challenges and requirements will present themselves; however, it is the goal of this document to begin to lay out the preliminary scope of the project.

AN OVERVIEW OF BABLER'S VETERINARY CLINIC

DESCRIPTION OF SERVICES AND AMENITIES

PRIMARY CARE

1. Appointments
2. Tests
3. Small outpatient procedures
4. Pharmacological therapy
5. Dietary care
6. Euthanasia
7. Referrals to external specialists

¹ This business does not actually exist and is a fantastical imagining for this project.

SPECIALIZED CARE

1. Dentistry
2. Births & Hatchings
3. Physical Therapy
4. Cancer Care
5. Surgery

HUMAN CARE

1. Grief Counselling
2. Follow ups regarding veterinary medical procedures
3. Adoption facilitation

DESCRIPTION OF STAFF

CAREGIVING STAFF

VETERINARY DOCTORS

- All doctors have a base specialization in domestic mammalian primary care (house pets). Each vet has one of the following specializations:
 - a) Mammalian oncology
 - b) Mammalian Obstetrics; domestic avian and reptile primary care & hatching
 - c) Physical therapy and Orthopedic surgery
 - d) Dental & Beak health

REGISTERED VETERINARY NURSES

- 4 full-time²

VETERINARY TECHNICIANS

- 2 full-time

GRIEF COUNSELOR & ADOPTION SPECIALIST

- 1 part-time & on-call

SUPPORT STAFF

CHEMISTS

- 1 full-time
- 1 part-time paid intern from local college

² This is for informational purposes only—human resource and examination/operation room scheduling is not *currently* part of the scope of this database project.

RECEPTION

- 1 full-time
- 2 part-time

MANAGEMENT

- General Clinic Manager (also happens to be owner, also by chance a DBA) –part time
- Full-Time operations manager and accountant

INFORMATION TECHNOLOGY

- Part-time on call consultant

REQUIREMENTS THAT NEED TO BE ACHIEVED

It is assumed that the General Manager and the IT consultant will have global administrative access.

SECURITY REQUIREMENTS

BACKGROUND

HIPPA does not apply to animals³, patient and owner/parent⁴ privacy is still a significant legal concern for any small business especially a veterinary clinic. The clinic also provides pharmacological and lab work services creating additional security concerns regarding need-to-know information on chemical availability.

CRITICAL REQUIREMENTS

1. Only veterinarians and nurses need to see how much of a pharmacological agent is on hand.
2. Reception and management needs to know how much items cost, but not what is available.
3. Only, chemists and vets need to know what chemicals & tests are available.
4. Reception and management need to know what a test costs for charging owners.
5. Management needs to know what the cost is for ordering the chemicals, testing equipment, pharmacological compounding agents, and pre-made pharmacological therapies (drugs/medicine).

³ Yet...

⁴ Since animals are considered by many Americans to be family members, though legally considered property the terms owner and parent will be used interchangeably throughout this project. The owners and the vets have specified that they prefer on all internal documentation to use family terms "Mom/Dad/Parent" rather than ownership because it respects the bond that the humans have with their animal family members. Due to this being a business they may also be referred from time-to-time as customers.

6. Chemical and Pharmacological ordering will be handled by the Chemist under supervision of the vets and nurses. Management only needs to know cost in and out, not how much is on hand.

SMALL BUSINESS CONCERNS

BACKGROUND

All small businesses have some of the same functional and critical requirements; these are listed here.

CUSTOMER RELATIONS MANAGEMENT

GENERIC CRM

1. Owner information needs to be tracked
2. Animal information needs to be tracked and related to the owner's information

SPECIALIZED CRM

1. *From a user story:* Jorge a part-time receptionist:
"Ms. Harrison brought in her two cats for vaccines and I asked her how her dachshund 'Spencer' was doing, I knew he was having some health issues, but I had just gotten back from vacation, so I wanted to see how he was. She started crying, apparently Spencer had passed away last week, and even though we handled getting the body to the crematory for her the dog was still listed on her account; there was no way to archive, or mark animals that had died,".
--When a receptionist calls up a customer's profile only their living companion animals should show.
2. The grief counselor would like to know right away what type of animals the grieving pet parent has been looking for so that an adoption can be facilitated potentially during a grief counselling appointment.
3. Vets, nurses, and techs need to know the full list of current medications an animal is on, recent tests results, and recent operations/procedures as soon as they pull up their chart.
4. Vets need to be able to access historical data for a patient, and not just current data.
5. Vets need to be able easily access all related charts for sibling pets in the same household; to see if symptoms have crossed between pets, or if there are environmental concerns, (i.e. tracking animal abuse).
6. Any time a doctor performs a procedure, orders a test, or adds medication to the patient's therapy it should be added to their chart.
7. If an animal is euthanized on site it should immediately be marked as deceased in the CRM files.

INVOICING

1. Invoices need to be generated.

2. Past Due Bills need to be flagged for call back and late fees.
3. Estimates that expire after a set time need to be generated.
4. When a doctor orders a test once the chemist marks the test as complete it should apply to the most current invoice for a customer.
5. When a doctor marks a service as complete the cost of the service and all associated costs should be exported to an invoice.
6. If a customer has an unpaid invoice, looking at their account should show a flag for this.
7. When a doctor prescribes a medicine, it should also be added to the invoice.

INVENTORY MANAGEMENT

1. Medication in and out needs to be tracked and updated.
2. Equipment for lab tests needs to be tracked and updated.
3. Blood type and blood availability needs to be stored and tracked.
4. Disposable equipment usage needs to be tracked.

Some notification needs to happen (such as a flag turning from False to True) when a critical level is reached in any/all these supplies.

CLOSING COMMENTS

This document is a draft that outlines the structure of the business, the services it provides, and the types of data requirements it has. This document will be the basis of developing the scope and business rules required for the project. There may be items on this document that no longer become relevant as the scope and additional items may be added to the scope upon further requirements study.