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PET CARE SYSTEM

Scope of Work in Distributed Systems

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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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Introduction

Pet industry is expected to reach €334.52 billion by the year of 2027. This clearly shows that pet owners are willing to spend money and time to take care of their furry friends. Many people offer different services to pet owners in hopes to make their lives easier and the life of their pets better.

The purpose of this project is to make an application that helps pet professionals manage their activities. It also gives their clients an easy way to book services that they need, without having to search the Internet for separate services.

While it is true, that a lot of us can happily live with our pets without needing any extra services or fancy technologies, there are plenty of businesses that center around pet care: pet hotels, pet groomers, pet, dog walkers, pet trainers etc. These often provide fairly complex services to pets and their owners, and they would use an application to keep them organized. It is a lot easier to keep track of your services, if they are gathered in one place. It saves time because it automates the process of booking the appointments, so instead of having to take calls and manually writing down what they need to do and when, it is all done for them. The application keeps track of the history about the clients and services they have offered, while also showing the upcoming activities.

Pet owners benefit from the application by having an easy All-in-One application, where they can look for and book the services they need- all in one place. The user can sort through the list of services by selecting the service they need, the location where it takes place and what kind of animal the service is meant to be for. Owners too can keep track of their previous and upcoming appointments for their pets; therefore, they don't have to worry about forgetting whether their next vet visit was supposed to be on 17th of February at 12:00 or 18th of February at 12:30.

In conclusion, it doesn't matter if the pet business a person runs is small, one-person business, or a bigger one, those professionals still need something that lets them explain their services, organize their schedule, track in-progress and upcoming tasks and state their prices. As well as owners will always need those services, so why not make it easier for them. The application will be general enough to cover many different situations. It'll go with the assumption that the professional has a physical place where they provide services (like a pet hotel) or that they have a starting point for providing services (e.g. park name for a dog walker).

ERD and Analysis

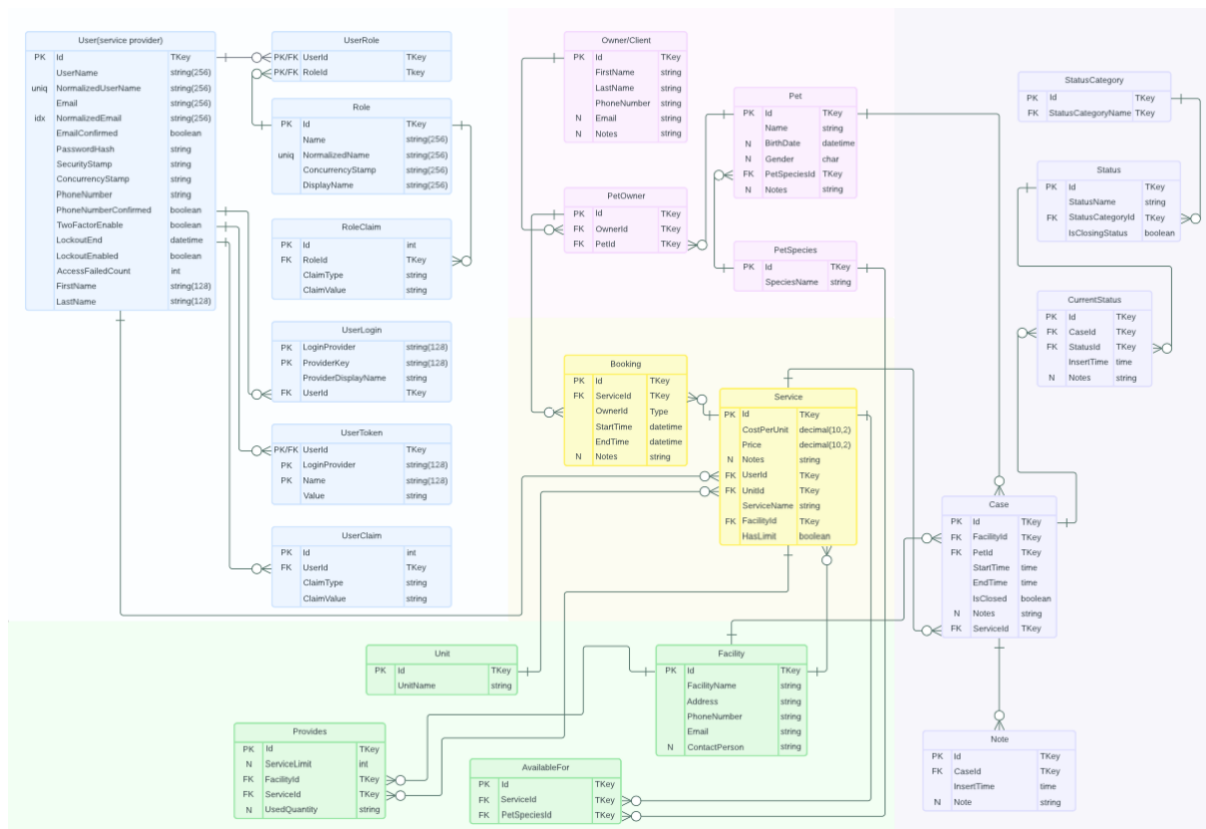


Figure 1. ERD schema.

Pets (pink)

For each pet we'll store a name given by the owner, their species, birthday, gender and notes, although last three are not mandatory to have. In the Owner table, a list of past and current clients is held, along with their personal and contact details. One owner can have many pets and one pet can have many owners. The species table holds information about the different animal species available, which in this scope are cat, dog, bird, rodent, reptile, farm animal. If the project was to grow bigger, a more complex structure with specific breeds could be built.

Facilities and service (green and yellow)

This area holds information about the services offered. The service table is used to store a list of all services offered to the clients. For each service we have: name, unit (depends on the service provided, can be measured in time or material), cost per unit, price (for the entire service), facilityId (where the service is provided), notes and hasLimit (defines whether the

service is limited by anything, e.g. beds in the hotel). “AvailableFor” holds the unique service-species pairs stating, which services apply to which animal species. Facility table stores information like it’s name, address, phone and contact person. There is also the need to hold data on what services the specific facility provides, which is why we need the “Provides” table. In the provides table, we’ll store a facilityId - serviceId pair. In case that service.hasLimit for the referenced service is true, we’ll also need to define the serviceLimit for that facility as well the usedQuantity. That value should be recalculated each time we start providing that service for one more pet in that facility or we stop providing it to a pet.

Cases (purple)

The Cases subject area will describe and store all data related to visits or sessions. The case table stores pets and facilities related to sessions, calls, or visits. Each case will have one or more statuses assigned to it. StatusCategory contains a list of statusCategoryName values. All possible statuses are stored in the status dictionary. For each status, we’ll store its statusName, the ID of the status category it belongs to, and the isClosingStatusvalue. If the isClosingStatus value is “True”, it means that when we assign this status, the case will be marked as closed. In the case_status table, we’ll store all statuses that were actually assigned to cases. For each record in this table, we’ll store references to the case and the status tables, any additional notes, and the insertTime of that status.

Main Client Positive Flow Screen Sketches

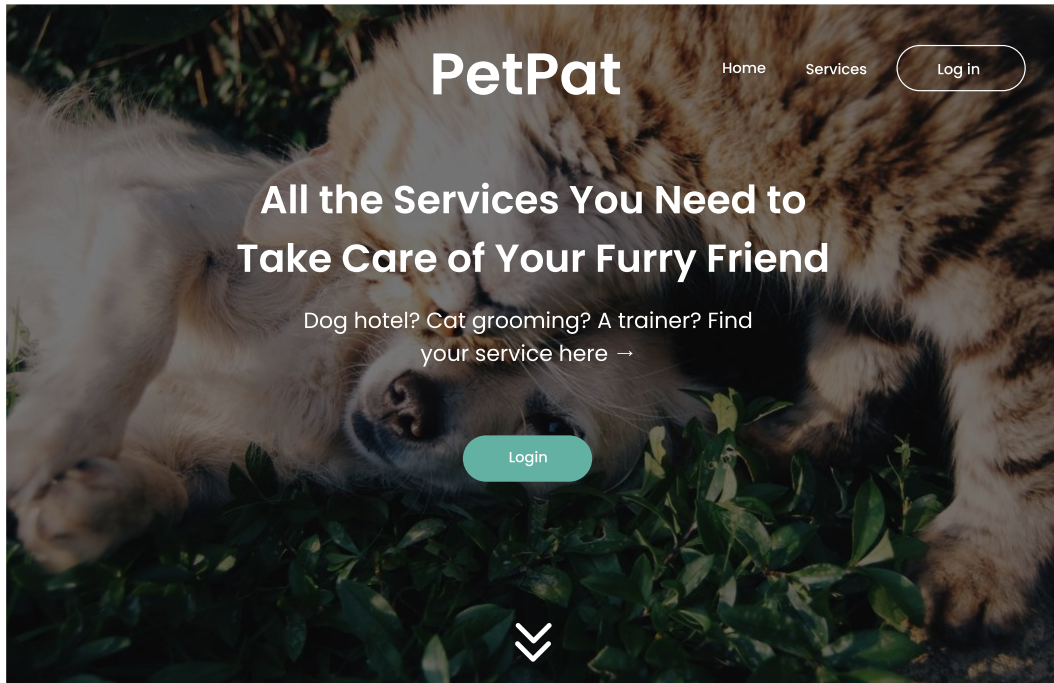


Figure 2. Login view.

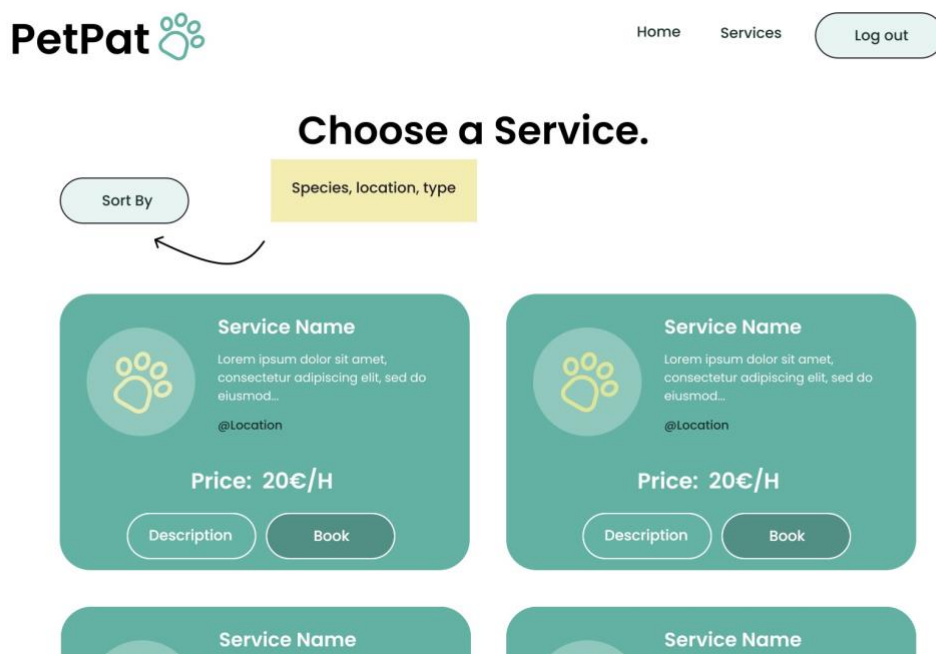


Figure 3. Services view.

Service Description.

Service Name

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod...
 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod...
 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod...

@Location

@Provider

Price: 20€/H

Back to List

Book

Figure 4. Service description

PetPat

Home Services Log out

Book {service name}

Select a date >>

18/04/2023

▼

Choose a time >>

12:00

▼

Client Info:

First name >>

Last name >>

Email >>

Phone >>

Confirm

<< Description

Same thing but for the pet as well.

Figure 5. Booking the service view.

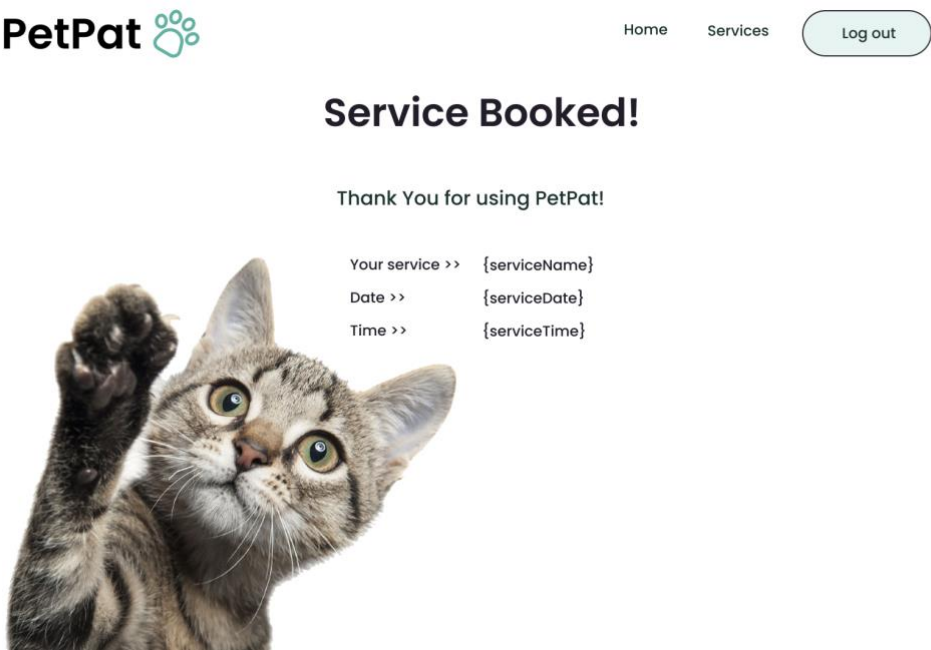


Figure 6. “Service Booked!” view.

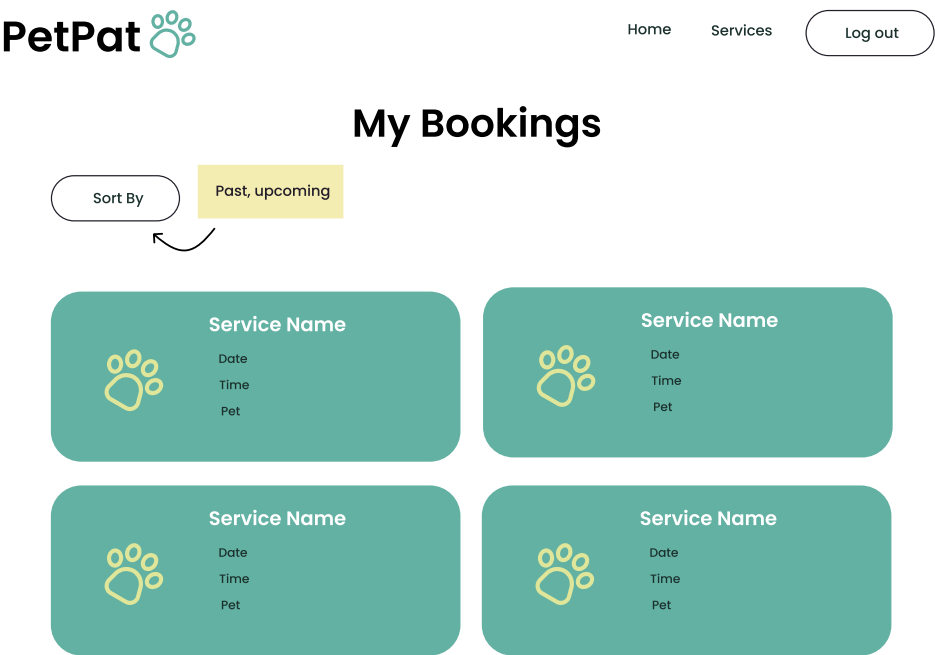


Figure 7. Client services’ bookings.