RUFF HAVEN
Crisis Sheltering

IS 6420-002 Spring 2024 – Database Theory and Design

Group 1

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Executive Summary

Established in 2020, Ruff Haven has provided a safe haven for companion animals during times of crisis. We recommend that Ruff Haven implement a transactional database system to enhance its operational efficiency, collaboration, and impact. This transformative tool will serve as the organization's backbone, enabling seamless management of pets and owners in crisis sheltering, grooming services, and other vital programs.

Our group has chosen to focus on the rehoming, crisis sheltering, and grooming services provided by Ruff Haven for the scope of this project. Still, the database can be expanded to include other services such as vaccine clinics, pet pantries, and other community outreach activities.

To help promote growth for Ruff Haven, we created a model with 17 tables that track the owner and pet as they experience the different services Ruff Haven offers. It is crucial to maintain accurate and up-to-date data to track the journey of pets in the system and protect the owners' anonymity.

We used the applications Ruff Haven provided when an owner encounters the website to create the owner profile, pet profile, rehoming application, and foster information. The pet profile also includes information on listed pet behaviors and animals the pet has encountered and is friendly with.

For our new venture, we created mock domestic abuse safe house locations in Utah and examples of pet/owner stays at these safe houses.

General Description

Background and History

The founders of Ruff Haven aspired to create a safe place for people and their pets in times of crisis. Established in 2020, friends observed the need for crisis sheltering services to support the homeless and other vulnerable populations in Salt Lake County. Ruff Haven aims to increase pet retention and reduce the number of animals entering the shelter system by offering temporary homes for companion animals while their owners are in need. Ruff Haven believes in respecting people and pets, fostering a non-judgmental environment, and acknowledging that animal welfare coincides with human welfare.

In 2022, Ruff Haven served 228 families, with 101 cats and 220 dogs accepted into crisis sheltering. Of all pets sheltered, 86% were successfully reunited with their families. On top of offering crisis sheltering, Ruff Haven sponsored 110 spay and neuters, 777 animals vaccinated at vaccination clinics, and 58 dogs and cats groomed[4].

Mission Statement and Guiding Principles [7]

Ruff Haven's mission is to provide a temporary safe haven for companion animals in order to keep pets and their people together in times of crisis, increase pet retention, and decrease the number of animals entering the shelter system.

Respect – We treat the people and pets we serve with kindness and dignity. We strive to provide a non-judgmental environment where people feel safe entrusting their beloved pets into our care.

Community – We provide services to underserved and vulnerable people in our community to remove barriers to keeping their well-loved pets in their homes. We collaborate with other animal and social welfare agencies to provide wrap-around services to those in need. We also engage and rely on members of the community to volunteer, foster, and provide financial support.

Empowerment – We believe people are experts in their own lives and trust them to be able to make the best decisions for their pets with our guidance and support. We provide tools and resources for our clients to assist them with making informed choices and outcomes for themselves and their pets.

Compassion – We resolve to demonstrate understanding and empathy to our clients and their pets by always providing genuine service. We understand people from all backgrounds could experience hardship regardless of circumstance and seek to give attention to under-resourced community members.

Quality Care – We are driven by animal welfare best practices and evidence-based models when providing services to the pets in our program. Our top concern is the animal's well-being. We also provide transparent communication to our human clients, ensuring they receive accurate and timely updates about their pets.

Services

Crisis Sheltering: Ruff Haven provides temporary crisis pet sheltering for owners experiencing a temporary hardship or emergency and would otherwise be forced to surrender their animals or rehome them. Pets can be placed in their partner boarding facility, Dogs All Day, or placed with a foster family through the foster network for 60 to 90 days at no cost to the owner. All animals

receive needed medical treatment, including vaccinations, spay/neuter, and microchips while in Ruff Haven's care.

Grooming: Monthly free grooming is provided to all pets in the crisis sheltering system and to low-income community members.

Vaccinations: Community vaccination events are held regularly to provide free vaccinations, microchips, food, leashes, collars, and other needed items for free to families in need. People experiencing homelessness or are given a referral from a social services agency are also offered free pet vaccinations.

Miscellaneous Services: Owners living in a resource center needing temporary daily pet care services for working hours, medical appointments, or court hearings can bring their pets to Dogs All Day for doggie day camp.

Ruff Haven has created a fund for housing applications and pet deposit fees for pet owners involved in the crisis sheltering program. It also has pet pantries on-site and at other locations for families in need.

Use of Transactional Database

The use of transactional databases will aid in Ruff Haven's rapid growth and continued expansion to serve larger populations. Staff will utilize the database to track pets and owners entering the system for rehoming, crisis sheltering (boarding, domestic abuse safe house, and foster program), and grooming services provided. A table of existing foster volunteers is also maintained for outreach. The database is a key enabler for Ruff Haven's commitment to quality care and effective community engagement.

Prioritized Requirements

The database will streamline these core activities to help pets stay with their people.

Pet: Before any services can be provided, a form is submitted by the owner providing information about the pet. It is important to know its current medical status and typical behavior so the right care can be provided.
Priority: Critical

Owner: The form will also provide information about pet owners or adopters.
Priority: Critical

Crisis Shelters: Two tables will represent stays at the boarding facility or foster home. While only one boarding location currently exists, there are multiple foster homes for which different information will be stored such as animal and time preferences.
Priority: Critical

Safe Home: A safe home will have multiple rooms for both pets and owners. Capacity will be tracked to ensure the homes are not over utilized.
Priority: Significant

Rehome: Pets needing to be rehomed will be placed on a listing for adopters to view. When arranged, the time, place and result of a meeting will be stored. If the meeting is successful and the pet is adopted, the system will store information from a digital contract.
Priority: Moderate

Grooming: As grooming is provided to a larger population, the times and services of each grooming session will be stored so Ruff Haven can plan for forecasted demand.
Priority: Low

New Venture

Domestic Abuse Safe House for Owners and Pets

In 2022, Ruff Haven worked with other local partners to help pass Utah House Bill 175, a bill that enables victims of domestic violence to include their pets in domestic violence protective orders. In Utah, 1 in 3 women will experience domestic abuse during their lifetime[3], and up to 89% of pet-owning women entering shelters for domestic violence report that their abuser had injured, killed, or threatened family pets[2]. While HB 175 will help to reduce violence towards pets of abuse victims, it will not eliminate the threat completely. Ruff Haven offers owners a safe place to keep their pets through their crisis sheltering program until they return safely. However, being separated from what most consider a family member or emotional support in a pet can make an already difficult situation harder.

We propose that Ruff Haven invest in opening or partnering with an existing domestic violence safe house that not only creates a short-term safe haven for victims but also allows them to be housed with their companions. With fifty-five pets of domestic abuse victims helped in 2022[4], Ruff Haven can continue to reach more people in need by keeping owners and their companions together. A survey of 12 studies on domestic violence and pets found that between 18-48% of domestic violence victims either delayed leaving an abusive situation or returned to the abuser “out of fear” for the welfare of their pets[3].

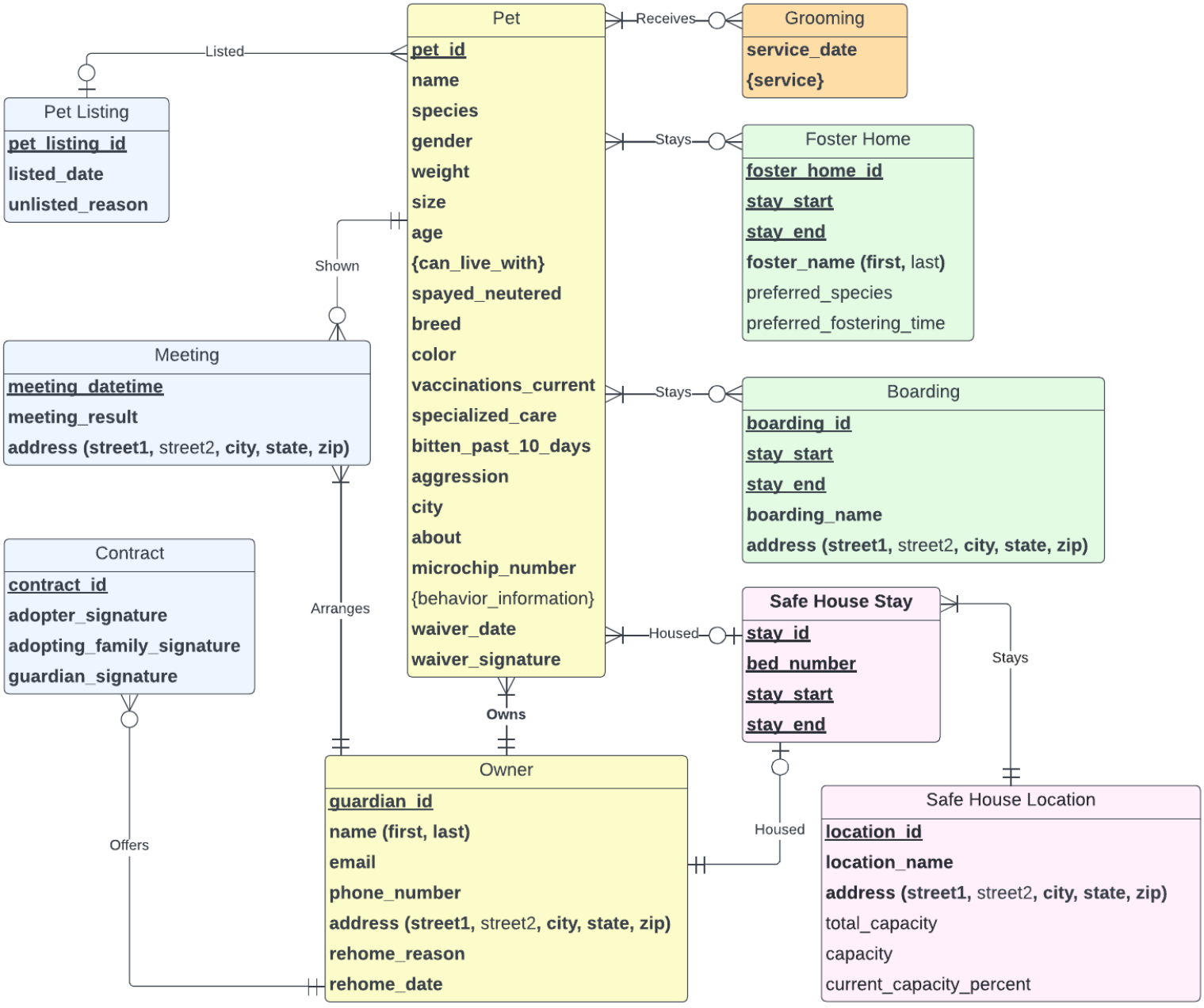
We have created two tables in our database to describe this new venture:

The safehouse_stay table is designed to track an owner's and pet's individual stay at a certain domestic abuse safehouse location. Information obtained includes the identification ID assigned to the pet and owner, assigned bed number, and stay start and end date. The names of the pet and owner are not included to maintain the safety and security of abuse victims.

The safehouse_location table is designed to track the individual locations of the domestic abuse safe houses. The table includes the safe house address and location id.

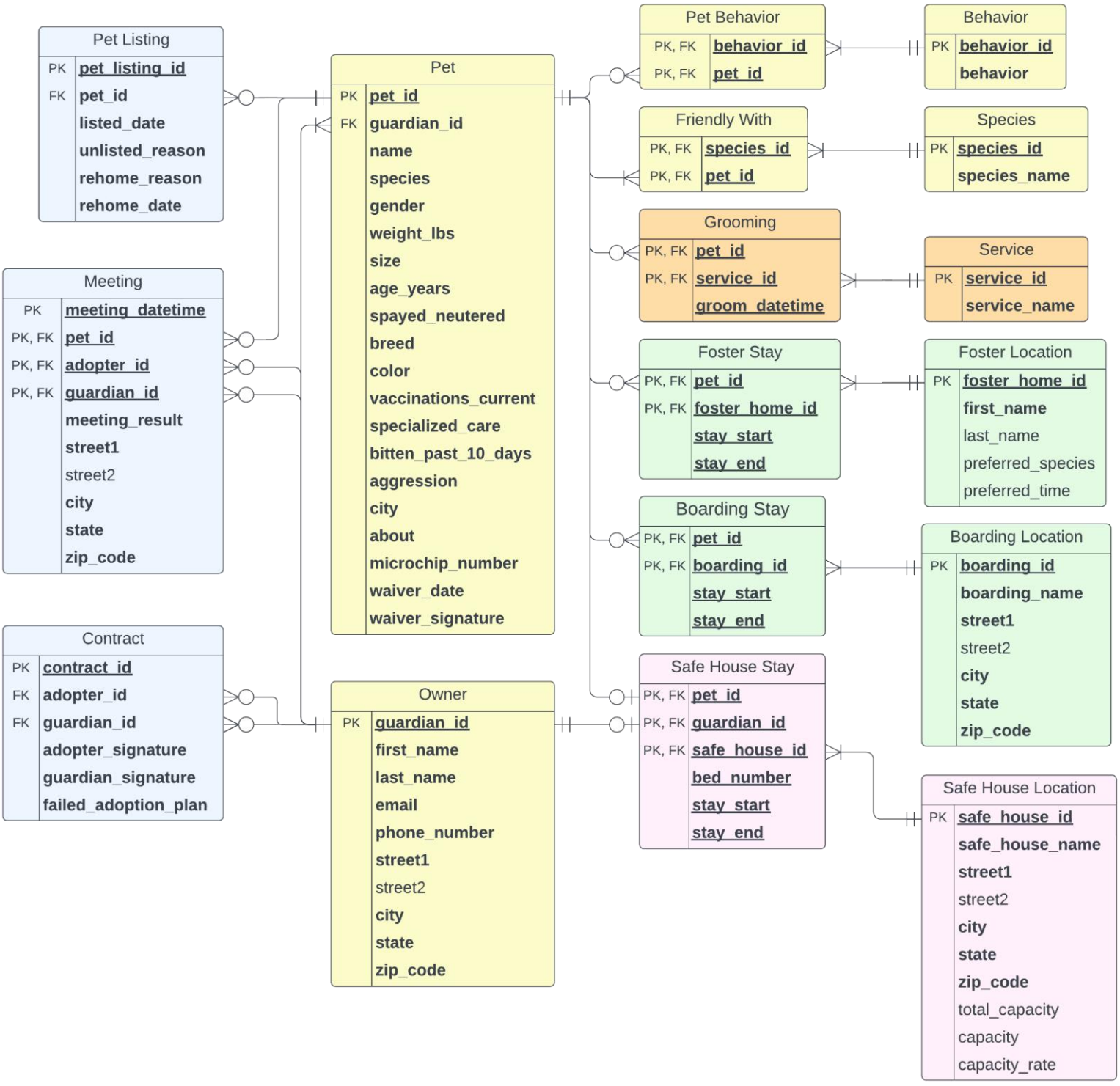
Conceptual Model

Pet and owner are the core entities in the database. Highlighted in yellow, they will hold information that enables all the major activities of Ruff Haven. Other than having an owner, each pet does not have to participate in all the services. However, it is expected that each pet will participate in at least one. In blue are tables that can be used to visualize a funnel of all pets listed for adoption to those who met with potential adopters and finally which ones were successfully rehomed. In green will house pets residing at boarding or a foster home while the owner is tending to their crisis. In pink is a new venture to record the use of new safe house locations. We decided to keep the foster home, boarding and safe house locations separate for two reasons. First, some attributes for each location vary. Second, each location isn't owned by Ruff Haven, so the current structure allows for further customization without the need to restructure the database. Finally in orange, grooming services will be tracked for pets.



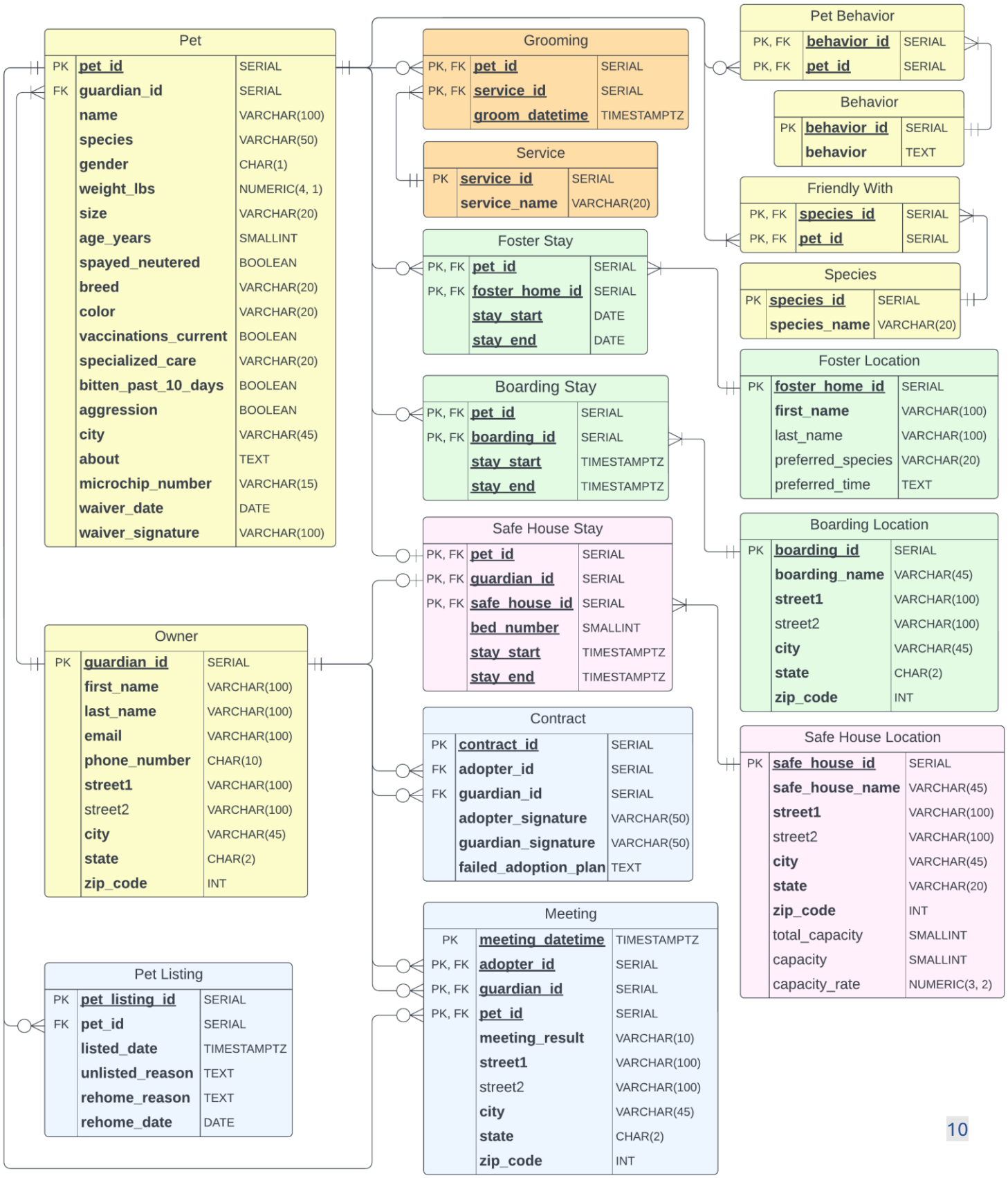
Logical Model

Several bridge tables have been added to facilitate the many to many relationships. All the bridge tables use every column to uniquely identify an instance of grooming or stay at a location. Boarding, foster homes and safe houses now have relations to store each stay a pet and/or owner may have. The pet entity expanded to collect their many behaviors or species they are friendly with.



Physical Model

Although the pet and owner tables are now on the side to optimize readability, it remains the central part of the model. Notice the about column in pet and failed adoption plan in contract. These data types will permit long descriptions about pets without chopping off any data.



Requirements Review

Critical Requirements:

Pet Information Form (Complete): The implementation of the pet information form requirement is complete. We successfully integrated a digital form that captures essential details about each pet, including medical status and typical behavior. This form serves as the initial step for pet intake and ensures appropriate care provision.

Owner Information Collection (Complete): The owner information collection requirement has been fulfilled. We have implemented a form that collects location and contact information of pet owners or adopters. This data is crucial for communication and coordination throughout the sheltering and rehoming process.

Crisis shelter Tracking (Complete): The Safe haven tracking requirement has been implemented. We have established two tables to monitor stays at the boarding facility or foster homes. These tables efficiently track pets and owner's movements within the Ruff Haven sheltering system.

Significant Requirements:

Safe Home Capacity Tracking (In Progress): The safe home capacity tracking requirement is currently in progress. While we have initiated the development of a system to monitor safe home capacities, additional improvements are needed to ensure accurate tracking and prevent overutilization.

Moderate Requirements:

Rehoming Process (Blocked): The rehoming process requirement has encountered a blockage. Due to unforeseen complexities and resource constraints, we were unable to proceed with this feature. Further analysis is required to determine the feasibility of integrating rehoming functionalities into the database system.

Low Priority Requirements:

Grooming Session Management (Complete): The grooming session management requirement has been successfully completed. We have established a system to record grooming session details, enabling effective planning and resource allocation for grooming services.

New Venture Requirements:

Domestic Abuse Safe House Tracking (In progress): The domestic abuse safe house tracking requirement has been fulfilled. We have developed tables to monitor stays at domestic abuse safe houses, ensuring the safety and security of both owners and their pets.

Ethical Considerations

If Ruff Haven chooses to implement this transactional database, it must follow the ethical guidelines to protect owners' anonymity and avoid data collection and analysis bias. Anonymity is required to ensure trust between Ruff Haven and the vulnerable populations they work with. Without anonymity, individuals may hesitate to utilize Ruff Haven's excellent resources.

Privacy and Confidentiality: Data within the transaction database can contain sensitive identification information about owners and potential adopters. For this reason, each owner, potential owner, and pet will be given an ID number to reference in other tables. The pet and owner table that includes identification information will only be accessible to a few identified administrative roles within the organization.

Responsible Data Analysis: Random identifiers will be used in all reporting and analysis to remove accidental identification. Remove bias by relying on existing algorithms and modules that do not discriminate against individuals and populations that utilize the program's resources.

Informed Consent for Data Usage: Owners, fosters, and potential adopters will also be asked for consent to include specific information in the data for reporting purposes. The data collected will also be clearly communicated to the individuals involved, and any other partners' information can be shared.

Security: Ensure there is no unauthorized access to sensitive data by creating read/write access to limited individuals and roles within the organization.

Conclusion

The successful implementation of the transactional database system marks a significant milestone for Ruff Haven Crisis Sheltering, enabling streamlined management of pet sheltering services and enhancing operational efficiency. Looking ahead, there are several potential future requirements and directions that the project could explore to further improve the system and expand its capabilities.

Future Features

In the future, as part of our ongoing efforts to enhance the services offered by Ruff Haven Crisis Sheltering, we plan to incorporate additional features related to the establishment and management of Domestic Abuse (DA) Safe Houses. These features aim to provide a safe and secure environment for both owners and their pets who are victims of domestic violence. Here are some potential future features we plan to implement:

Safe House Location Tracking: Enhance the database system to include functionality for tracking the locations of DA Safe Houses. This feature would enable the identification of available safe house options for individuals seeking refuge with their pets.

Stay Management: Develop capabilities within the database system to manage the stays of owners and their pets at DA Safe Houses. This includes recording check-in/check-out dates, tracking occupancy levels, and managing bed assignments for both individuals and their companion animals.

Anonymity and Security Measures: Implement robust security measures to protect the anonymity and safety of individuals seeking shelter at DA Safe Houses. This may include restricting access to sensitive information, such as personal details and shelter locations, and implementing encryption protocols to safeguard data.

Pet Accommodation Details: Incorporate fields within the database system to capture essential information about pets staying at DA Safe Houses, including species, breed, medical needs, and behavioral considerations. This information can help staff provide appropriate care and support for the animals.

Collaboration with Partner Organizations: Establish interfaces within the database system to facilitate collaboration with partner organizations involved in the provision of support services, such as domestic violence shelters, animal welfare agencies, and social service providers. This can streamline communication and coordination efforts to better meet the needs of individuals and their pets.

References

1. Cleary, Michelle; Thapa, Deependra K.; West, Sancia; Westman, Mark; Kornhaber, Rachel. "Animal abuse in the context of adult intimate partner violence: A systematic review," Aggression and Violent Behavior, Volume 61, 2021, 101676. ISSN 1359-1789. https://doi.org/10.1016/j.avb.2021.101676

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3. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Smith, S.G., Chen, J., Basile, K.C., Gilbert, L.K., Merrick, M.T., Patel, N., Walling, M., & Jain, A. (2017). "The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012 State Report." Atlanta, GA.

4. Ruff Haven. "Annual Report." (https://www.ruffhaven.org/annualreport)

5. Ruff Haven. "Canyons Veterinary Clinic."(https://www.ruffhaven.org/copy-of-canyons-veterinary-clinic)

6. ScholarWorks, University of Baltimore Law Review. (https://scholarworks.law.ubalt.edu/cgi/viewcontent.cgi?article=2291&context=lf)

7. https://www.ruffhaven.org/about

Appendix

Hours

Team Member	Hours Spent	Description of Work
Dallin Webb	6	Group Meetings
	13	Data Modeling
	5	SQL
	11	Written Report
	1	Presentation
Maddie Lee	6	Group Meetings
	6	Modeling
	5	SQL Tables
	10	Written Report
	11	Presentation
Pankaja Kopulkar	6	Group Meetings
	1	Modeling
	9	SQL Tables
	7	Written Report
	13	Presentation

Detailed Requirements

	Requirement	Table	Status	Notes
Critical	Pet	Pet	Complete	
		Pet Behavior	Complete	
		Behavior	Complete	
		Friendly With	Complete	
		Species	Complete	
	Owner	Owner	Complete	
	Safe Haven	Foster Home	Complete	
		Foster Stay	Complete	
		Boarding	Complete	
		Boarding Stay	Complete	
Significant	Safe Home	Safe Home	Complete	
		Safe Home Stay	Complete	
Moderate	Rehome	Pet Listing	Complete	
		Meeting	Complete	
		Contract	Complete	
Minor	Grooming	Grooming	Complete	
		Service	Complete	