Fetch: The Tinder for Doggy Playdates
Software Requirements Specification

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1. SRS Revision History

This lists every modification to the document. Entries are ordered chronologically.

Date	Author	Description
2-13-2021	cw	Added initial document into the repository
2-15-2021	cw	Filled in template for 1.0-2.4
2-16-2021	cw	Filled in template for 2.5-2.6
2-17-2021	cw	Filled in template for 3.1-5.0
3-11-2021	kn	Updated sections 2-3.2 to match final project

2. The Concept of Operations (ConOps)

The concept of operations (ConOps) “describes system characteristics for a proposed system from the users’ viewpoint.” (IEEE Std 1362-1998) The ConOps document communicates overall system characteristics to all stakeholders.

2.1. Current System or Situation

Any dog’s social life is completely in the hands of its owner. For dogs to have meaningful connections with other dogs, two or more owners must already know each other in order to plan playdates, walks, or exercises. Much like humans, dogs need to have companionships with each other to stay happy and healthy. Unfortunately, not all owners have family or friends that are also dog owners themselves, leaving their precious pups with limited fun. The amount of individuals that comprise the canine community is massive and their desire to meet as many people and dogs like them doesn’t fall short. Dogs and their owners alike are in dire need of a platform that allows for communication, advice, and connections.

2.2. Justification for a New System

Dog parks have always been and will always be an option for anyone to socialize their pups. In fact they are so popular that more than half (55%) of parks and rec agencies have at least one dog park. While their basic functionality is great, there are several inconsistencies that come with visiting them. The most crucial being that every owner treats, trains, and cares for their dogs differently. When an owner visits a dog park, or any public area on a whim, they have no clue who else will be there. Yes, this allows for the meeting of new dogs. However, the behavior or preferences of one dog/owner pair may not be the same as another. Anything from vaccination responsibility to feelings on rough play can contribute to these differences in opinion. While it may not seem fair, there is no way to manage these disagreements at a public place other than leaving and hoping a future visit will go smoother. The consistency of dog parks is not there and never will be.

As of now there are only a few options that allow owners and dogs to connect in some way online, whether that be through dating sites or social media platforms made specifically for dog

lovers. The missing piece is an existing app that's purpose is centered around the dog, is well known, and easy to use. The similar applications and websites that do exist are not focused on the dogs' companionships and they don't emphasize a relaxed, ease of use ideology. For these reasons, there isn't one existing, well-known application that has normalized this sort of experience. While this area has been explored by others, there remains mass potential and need for a new system that will completely reinvent the pet community.

2.3. Operational Features of the Proposed System

The new system, Fetch, would be a phone application for owners to try and match their dogs with other dogs. The matches would be based on the owner's perception of their dog's compatibility with another dog. Using the information provided by other users' profiles, an owner will have endless opportunities to match with dogs they see fit. Everything from breed to personality traits will be displayed in the deck of potential dog matches in order for owners to get a good insight into what they feel their final decision should be. What the owners would like to do with these matches is ultimately up to them, anything from scheduling playdates to providing advice to other owners is encouraged. Through using Fetch, puppies can finally meet with other puppies to solve the issues regarding dog parks and the community of dog lovers can be expanded to a whole new level.

2.4. User Classes

For the proposed application, Fetch, there will be one major user class: dog owners. Since the application will be used to make matches for dogs to play with other dogs, we are assuming all users will have experience with dogs. Fetch will not be useful for the adoption of pets.

2.5. Modes of Operation

There will only be one mode of operation, the single mode for all of the users. This mode will allow users to sign in or create an account from the start up page. From there, the single mode will allow users to use the Fetch application as intended.

2.6. Operational Scenarios (Also Known as "Use Cases")

Use Case 1: Create an Account

Brief description: This use case describes how a user would be able to start using Fetch and creating a profile for their dog.

Actors: A user

Preconditions:

1. The user has a dog.
2. The user has access to a mobile device to download the Fetch application.
3. The user has internet access.
4. The user has an email address.

Steps to Complete the Task:

1. The user follows the prompts on the initial screen and enters their existing email along with a password.

2. The user adds information about their dog to create a profile for their dog.

Postconditions:

The user has successfully created an account and a profile for their pet on the Fetch application. This will allow the user and their pet to begin matching with other compatible dogs.

Use Case 2: Match with another dog for a dog playdate

Brief description: This use case describes how a user would use their existing profile to match with another dog.

Actors: A user

Preconditions:

1. The user has an account and a profile for their dog on the Fetch application.
2. The user has internet access.
3. The user is logged in.

Steps to Complete the Task:

1. The user will open the application to their profile.
2. The user must navigate to the deck of profiles.
3. The user will look at each individual profile, reading about the dog's size, breed, age, etc. The user will then use this information to decide if this dog would be a good match for their own dog. If the decision is yes, the user will select the green heart button. If the decision is no, the user will select the red 'x' button.
4. If the user selects the yes button, the match will be saved and this owner will be able to view the match on their matches page.
5. Regardless of what the user decides, a new profile card will appear next, and allow the user to repeat steps three and four until they choose to exit or until they have viewed all other profiles.

Postconditions:

The user's dog has matched with other dogs and the two owners can begin messaging each other to plan a playdate for their pets.

3. Specific Requirements

3.1. External Interfaces (Inputs and Outputs)

3.1.1 C*reating an account*

1. Purpose: To create an account on the Fetch application to allow future matches to occur.
2. Source of input/source of output: Input will be the user's personal information. The output will be a successfully created account on the Fetch application.
3. Valid ranges of input/output: All authentication information for the user must be unique (no existing account). Output will only create a single account for the new user.
4. Units of measure: N/A

5. Data formats: ?

3.1.2 Matching/Declining a dog

1. Purpose: To accept or decline potential communication or playdates with another owner and dog.
2. Source of input/source of output: Input will be a user's decision on another dog profile. Output will be a successfully matched or declined profile.
3. Valid ranges of input/output: A decision must be input in order to view the next profile.
4. Units of measure: True/False
5. Data formats: ?

3.2. Functions

1. Validity checks on the inputs: The program must verify that no user is using the same email as an already registered user. This will prevent multiple of the same dogs appearing in the deck multiple times.
2. Sequence of operations in processing inputs: After the new user has filled out the required authentication they will have access to the profile page and other components. After the new user has filled out all required components on the profile page, the user may then start browsing the deck. Without the completed profile information, they will show up blank or incomplete in the deck that other user's are viewing.
3. Responses to abnormal situations, including error handling and recovery: The verification will lead to the completion of a new account or asking the new user to use different information if there is a conflict in the stored user information.

3.3. Usability Requirements

The Fetch application will be able to allow new users to create an account as well as a profile for their pet. The matches will be based on both of the users discrepancy, so matches will be as accurate as the users enter their information. Additionally, matches at the beginning if the stack will be more accurate than the matches toward the end of the stack. There is no guarantee that the matches will result in a playdate, since after a match is made the conversation to meet up is left for the users to sort out together.

3.4. Performance Requirements

Numerous users can look through their stack of compatible potential matches at the same time. Additionally, numerous users can also chat with their matches at the same time.

The number of matches that a user will have will vary based on their characteristics, breed, size, and other information about their pet. The number of potential matches also depends on the other user's information as well. Each dog should have one match in their range of location.

3.5. Software System Attributes

The software must protect the **privacy** of the users. None of the users private information (phone number, email, location) will be displayed to any other user. All users can choose how much detail to include in their pet's profile. The software will allow the users to communicate using the chat feature, additionally protecting the users from not having to give their phone number to a stranger.

Since the software will be able to use the pet's attributes to find compatible matches, the software must be **reliable**. Fetch wants the owners to trust the matching algorithm when looking to match with another dog.

4. References

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5. Acknowledgements

The SRS template was provided by Juan Flores, who changed the original document created by Anthony Hornof.