

**SW Engineering CSC648/848 Spring 2021**  
**“Zooble”**  
**Section 04 Team 2**

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## Section I: Data Definitions V3

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### Entities:

1. **General User** - A General User is any user browsing the website, whether registered or unregistered. A General User has the ability to create an Account.
  - a. Registration Info
    - i. A General User shall provide a unique username on sign up
    - ii. A General User shall provide a password on sign up
    - iii. A General User shall provide a valid email address on sign up
    - iv. A General User shall provide a display name on sign up
2. **Account** - An Account is an entity that will be created by the system on user sign-up and will contain user information such as the username, email, and password.
  - a. Active Account: An account that currently has its information and activity stored in the database
  - b. Banned Account: An Account that has been banned by an Admin,
  - c. Deleted Account: An Account that existed in the database at a certain point in time, but the linked user chose to delete it. Their information and activity is no longer stored in the database
3. **Premium Business Account** - A Premium Business Account is a paid Account that Registered Businesses can sign up for that has all the attributes of a regular Account plus additional features below.
  - a. Search Advertising: Registered Businesses with a Premium Business Account will be featured prominently in searches by Registered Pet Owners near them, when General Users search for Registered Businesses that are in the same Business Category
  - b. Feed Advertising: Posts of Registered Businesses with a Premium Business Account will be featured prominently in the Feed of Registered Users near them
  - c. Posts Near You Advertising: Posts of Registered Businesses with a Premium Business Account will be featured prominently in the Posts Near You of General Users near them
4. **Registered User** - A Registered User is a General User that has created an Account and can be a Pet Owner, Pet Business, Pet Shelter, or Admin.
5. **Admin** - An Admin is a Registered User who moderates the site with elevated privileges, reviewing flagged content, removing content not compliant with site terms and conditions, and messaging or banning problematic users.

- 6. Registered Business** - A Registered Business is a Registered User who indicates that they're representing a business upon sign up.
  - a. Business Category: A Registered Business chooses Business Categories when they sign up, allowing them to show up in filtered search results
  - b. Business Address: The physical address of a Registered Business
  - c. Business Phone Number: The phone number of a Registered Business
  - d. Average Rating: The average of all the Ratings given to a Registered Business by Registered Owners
- 7. Registered Shelter** - A Registered Shelter is a Registered User who indicates that they're representing a shelter upon sign up.
  - a. A Registered Shelter shall have pets
    - i. Pets owned by Registered Shelters shall be available for adoption for General Users to see.
  - b. Shelter Address: The physical address of a Registered Shelter
  - c. Shelter Phone Number: The phone number of a Registered Shelter
  - d. Average Rating: The average of all the Ratings given to a Registered Shelter by Registered Pet Owners
  - e. Pet's Siblings: Is a list of an adoptable pet's siblings if available
- 8. Registered Pet Owner** - A Registered Pet Owner is a Registered User who indicates that they're representing a Pet owner upon sign up.
  - a. A Registered Pet Owner shall have pets
- 9. Pet** - A Pet is created when a Registered Pet Owner or Registered Pet Shelter chooses to add a Pet to their Account. A Pet will have identifying attributes about them assigned by their owner, which are displayed in their Profile and filterable when a General User searches through pets.
  - a. Adoptable Pet: A Pet that is owned by a Registered Pet Shelter shall be adoptable and will have an indicator on its Profile picture and show up in the location based search
- 10. Profile** - A Profile is created when a General User creates an Account and will display entity images and information (listed below) and will act as a conduit for users to interact with one another through private Messages and Post/Image interaction.
  - a. Display Name: The display name chosen by the General User when they create their Account and intended to be their real first name or in the case of Registered Businesses and Registered Shelters
  - b. Profile Picture: The Picture is the image chosen by the Registered User when creating the Profile for the first time or when editing
  - c. About Me: The About Me is a short text written by the Registered User when they create a Profile, and contains anything the Registered User

- wants to include to introduce or provide background for those who view the Profile
- d. Photos: Photos are images uploaded by the Registered User at any point during their use of the website.
  - i. This includes any Photos included in Posts to the Feed and Photos directly added to the Profile during editing
  - ii. Photos can be commented on and liked from
- e. Recent Posts: Recent Posts are a collection of the most recent posts submitted by the Registered User that the Profile belongs to
- f. Online Status: Allows Registered Users to see which Registered Users are currently online

**11. Pet Profile** - A Pet Profile is a Profile that displays the information/images associated with a Pet entity by the Registered Pet Owner or Pet Shelter Owner acting as its owner.

- a. Siblings: If a Pet is owned by a Registered Pet Owner, Pet's Siblings represent all the other pets the Registered Pet Owner owns. The Registered Pet Owner can display a selection of the Pet's Siblings on the Profile, with the rest of the pets available through a link to display all Siblings of a Pet in a list format
- b. Housemates: If a Pet is owned by a Registered Pet Shelter, Pet's Housemates represents all the other pets the Registered Pet Shelter owns. The Registered Pet Shelter can display a selection of the Pet's Housemates on the Profile, with the rest of the pets available through a link to display all Housemates of a Pet in a list format

**12. Registered Pet Owner Profile** - Registered Pet Owner Profiles are entities that display the owner information/images associated with a Registered Pet Owner.

- a. My Pets: Displays Profile Pictures and names of pets owned by a Registered Pet Owner and provides links to their Pet Profiles

**13. Registered Business Profile** - Registered Business Profiles are entities that display the business information/images associated with a Registered Business.

- a. Contact Details: Is the Business Info for how users can contact a business
- b. Business Info: Displays the Address, Phone Number, and Business Hours of a Registered Business
  - i. Address: The Address for the business location/office/etc. provided by the Registered Business on sign up to the website, that is verified by the Admin and can be edited at any time, and links to the location on the interactive map search
  - ii. Phone Number: The Phone Number for the business location/office/etc. provided by the Registered Business on sign up

- to the website, that is verified by the Admin and can be edited at any time
- iii. Hours: The complete business hours provided by the Registered Business whom the Registered Business Profile belongs to and can be edited at any time
- c. Our Reviews: Displays Review Summaries and displays names for most recent reviews written by Registered Pet Owners for the Registered Business that the Profile belongs to. Provides a link to write a Review when viewed by a Registered Pet Owner
  - i. Average Rating: The computed Average Rating calculated from the Ratings provided by Registered Pet Owners
  - ii. Review Preview: The link to the full Review written by user that contains the short Reviewsummary and the name of the user who wrote the Review

**14. Registered Shelter Profile** - Registered Shelter Profiles are entities that display the business information/images associated with a Registered Shelter, and links to pets sheltered at a Registered Shelter.

- a. Our Pets: Displays the Profile Pictures and names of Pets, with links to their Pet Profiles, selected by the Registered Shelter
- b. Contact Details: Is the information(phone number, address) on how users can contact a shelter

**15. Posts** - Posts are entities created by Registered Users that are viewable by Registered Users, containing text and/or Photos.

- a. Post Body: The optional longform text written by a Registered User that is viewable by General Users when viewing multiple Posts in a list format and single Posts
- b. Post Photo: The Photo that is added to a Post by a Registered User that is viewable by General Users when viewing multiple Posts in a list format and single Posts
- c. Post Timestamp: The timestamp generated by the system and linked to a post when a Post is made
- d. Post Likes: The Likes associated with a Post, given to a Post by Registered Users

**16. Comment** - Comments are texts created by Registered Users that are posted as responses/replies to Posts created by Registered Users.

- a. Comment Body: The longform text written by a Registered User that is viewable by General Users when viewing multiple Comments in a list format

**17. Photo** - Photos are images uploaded by Registered Users and submitted as Posts or used as Profile pictures.

- a. Photos can be in the jpg or png format
  - b. Photos can have a max file size of 20 MB
- 18. Review** - Reviews are entities submitted by Registered Pet Owners to record their experiences at/with Pet Shelters, Businesses, and with Registered Users choosing to be Pet Sitters, whether online or in-person, which will be visible through those entity's profiles. Reviews require a Rating to be submitted.
- a. Review Summary: The summary of a review is the short form text summary of the full review written by a Registered Pet Owner that is displayed to other General Users browsing/viewing multiple reviews in a list format
  - b. Review Body: The body of a review is the long form text written by a Registered Pet Owner that is displayed to other General Users when they view a single review
- 19. Rating**
- a. Ratings are entities submitted by Registered Pet Owners to quickly record their satisfaction with experiences at/with Pet Shelters, Businesses, and Pet Sitters, whether online or in-person
  - b. Ratings make up the Average Rating of a Registered Business that is displayed to General User on a Registered Business's Profile
  - c. Ratings make up the Average Rating of a Registered Shelter that is displayed to General User on a Registered Shelter's Profile
  - d. Ratings make up the Average Rating of a Registered Pet Sitter that is displayed to Registered Users on a Registered Pet Sitter's Profile
- 20. Message** - A Message will have subject and body and will be sent from Registered Users of any type to Registered Users of any type.
- a. Message Subject: The short form text summary of the Message's contents written by the Registered User writing the Message and displayed to other Registered Users viewing multiple Messages in a list format and when they view a single Message
  - b. Message Body: Long form text written as the content of the Message by a Registered User and displayed to the Registered User viewing a single Message
  - c. Deleted Message: A Deleted Message is any Message that a Registered User deletes from their Messages. Deleted Messages will not be visible for the Registered User who deleted the Message but will not affect visibility for the other Registered User
- 21. Likes** - Likes are entities used by Registered Users to demonstrate a reaction to a Registered User's Posts or Comments.
- 22. Follow** - A Registered User can Follow another Registered User to see their Posts on their own Feed.

- 23. Follows** - Follows indicate the Registered Users who a Registered User is following.
- 24. Followers** - Followers indicate the Registered Users who are following a Registered User.
- 25. Feed** - This entity allows a user to view/interact with all the recent Posts of the Accounts they are following.
- 26. Park** - Parks are entities that are created by Registered Pet Owners to represent a real-world park at a given location.
- 27. Park Profile** - Park Profiles are entities that display the park information/images that are edited/uploaded by Registered Pet Owners.
- a. Park Address: The physical address of the Park
  - b. Park Reviews: Displays review Summaries and displays names for most recent reviews written by Registered Pet Owners for the Park that the Profile belongs to. Provides a link to write a review when viewed by a Registered Pet Owner
    - i. Average Rating: The computed average Rating calculated from the Ratings provided by Registered Pet Owners
    - ii. Review Preview: The link to the full review written by user that contains the short review summary and the name of the user who wrote the review
- 28. Forum** - Forums are a collection of Posts by Registered Users separated by topic, and further separated into user-created Forum Threads.
- a. Topics: The Topic of a forum that corresponds to an animal type or breed on the website
- 29. Forum Thread** - Forum threads are created by any user, and are continuous sequences of Posts and replies located in an encompassing forum.
- a. Forum Thread Title: The title of the Forum Thread chosen by the Forum Thread Creator and is displayed to other General Users browsing/viewing multiple Forum Threads in a list format
  - b. Forum Thread Starter: The first Forum Thread Post in a Forum Thread written by the Registered User who created the Forum Thread
  - c. Forum Thread Post: Long-form text Posts written by Registered Users in a forum thread
    - i. Forum Thread Posts can include a Photo uploaded by the Forum Thread Post creator
- 30. Flag** - A Registered User can flag any content that they find offensive
- a. Flagged Content: Flagged Content is any Photo, Post, Comment, Forum Thread Post, or Forum Thread that a Registered User has flagged

- i. Flagged Content appears on the Admin Control Panel, where the Admin can take further action, in deleting, banning, and/or messaging the offending Registered User(s)

**31. Admin Control Panel** - The Admin Control Panel is a view available to the Admin that shows Flagged Content and Users Pending Approval.

- a. Users Pending Approval: Any Registered Shelter or Registered Business wishing to create an Account for their shelter or business who have not yet been approved

**32. Deleted Content** - Deleted Content is any content that has been deleted by an Admin, or created by a Registered User who has deleted their account.

- a. Deleted Post: Deleted Posts and their Comments are not visible to General Users
- b. Deleted Comment: Deleted Comments on any Post are not visible to General Users

**33. Banned Content** - Banned Content is any content that was previously created by a now-banned Registered User.

- a. Banned Post: Banned Posts and their Comments are not visible to General Users
- b. Banned Photos: Banned Photos and their Comments are not visible to General Users
- c. Banned Forum Threads: Forum Threads made by banned users will be visible, but any forum Posts within the thread made by the banned user will not be

**34. Search** - The action of searching through website entities that are taken by General Users.

- a. Standard Search: A standard search allows General Users to search Registered Pet Owners, Registered Businesses, and Registered Pet Shelters, Parks, and Pets (Forums, Forum Threads, and Posts) in a traditional text-based fashion with filtering and sorting options
- b. Location-Based Search: The Location-Based Search is a search wherein a General User inputs a location, either manually or with the browser's location tracking, to see all the entities (Registered Businesses, Registered Pet Shelters, and Pets at Registered Pet Shelters) near that location. They can then sort and filter the results based on their needs

**35. Updated Review** - An Updated Review is an entity submitted by Registered Pet Owners that amends or records a different experience to their original Review. It will be linked to the original Review and requires a Rating to be submitted.

- a. Updated Review Summary: The summary of an updated review is the short form text summary of the full review written by a Registered Pet

Owner that is displayed to other General Users and is connected to the original Review

- b. Updated Review Body: The body of a review is a long-form text that is displayed to other General Users when the Updated Review is viewed

**36. Chat** - Chat is a functionality that allows Registered Users to send short informal Messages to each other in real-time.

**37. Block List** - Block List shall belong to a Registered User and shall contain a list of Registered Users that the Registered User does not wish to receive Messages from, or see their activity.

**38. Siblings** - Siblings are the pets that share at least one parent with each other that are assigned by their owner(Registered Pet Owner or Registered Shelter).

**39. Recent Activity** - Recent Activity encapsulates the actions taken by a Registered User recently including Posting, Commenting, Liking, and Following.

- a. Recent Activity Links: Users can click on Recent Activity Links (can be Recent Post) to jump to the location where the activity was performed

**40. Advertising Analytics** - Advertising Analytics is the use of data and tools to help Business Owners to determine the marketing efforts.

**41. Advertising Time Slots** - An Advertising Time Slot is a period of time that the advertisement will be shown in our application.

**42. Friends** - Registered Users whose Friend Requests are accepted by a Registered User.

- a. Friend Request: A Request sent by a Registered User to another Registered User that is accepted or declined and decides whether a Registered User becomes a Registered User's Friend

## **Section II: Functional Requirements V3**

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### **Priority 1:**

1. General User
  - 1.1. General Users shall be able to search for Registered Users (e.g. businesses, shelters, pet owners)
  - 1.2. General Users shall be able to search for Pets
  - 1.3. General Users shall be able to view the Pet Profiles of Registered Users
  - 1.4. General Users shall be able to use search filtering
  - 1.5. General Users can choose to share their location
  - 1.6. General Users shall be able to create an Account
2. Account:
  - 2.1. An Account shall be created by a General User of at least 13 years of age
3. Registered User:
  - 3.1. Registered Users shall inherit the functionality given to General Users
  - 3.2. Registered Users shall be able to log in to the website
  - 3.3. Registered Users shall be able to log out of the website
  - 3.4. Registered Users shall be able to create a Profile
  - 3.5. Registered Users shall be able to provide a Profile Picture
  - 3.6. Registered Users shall be able to change their Profile Picture
  - 3.7. Registered Users shall be able to write an About Me
  - 3.8. Registered Users shall be able to edit their About Me
  - 3.9. Registered Users shall be able to post Posts
  - 3.10. Registered Users shall be able to edit their Posts
  - 3.11. Registered Users shall be able to add Photos to their Profile
  - 3.12. Registered Users shall be able to post under their own Display Name
  - 3.13. Registered Users shall be able to follow other Registered Users
  - 3.14. Registered Users shall be able to be followed by other Registered Users
  - 3.15. Registered Users shall be able to view the profiles of Registered Users
  - 3.16. Registered Users shall be able to retract their likes.
  - 3.17. Registered Users can follow Registered Users
  - 3.18. Registered Users can unfollow Registered Users
  - 3.19. Registered Users can view the Registered Users who Follow Them
  - 3.20. Registered Users can search the Registered Users that Follows/Following them
  - 3.21. Registered Users shall be able to change the ownership of their Pets
  - 3.22. Registered Users shall be able to reset their password

- 3.23. Registered Users shall be able to stay logged in indefinitely until they manually log out (Remember Me)
5. Registered Business
  - 5.1. Registered Businesses shall inherit the functionality given to Registered Users
  - 5.2. Business Addresses of Registered Businesses can be viewed by Registered Users
  - 5.3. Business Hours of Registered Businesses can be viewed by Registered Users
  - 5.4. Registered Businesses shall be able to upgrade to a Premium Business Account.
6. Registered Shelter
  - 6.1. Registered Shelters shall inherit the functionality given to Registered Users
  - 6.2. Registered Shelters shall be able to add Pets to their Account
  - 6.3. Registered Shelters shall be able to delete Pets from their Account
  - 6.4. Registered Shelters shall be able to edit the Profiles of their Pet(s)
  - 6.5. Business Addresses of Registered Shelters can be viewed by Registered Users
  - 6.6. Business Hours of Registered Shelters can be viewed by Registered Users
  - 6.7. Registered Shelters shall be able to change the ownership of their Pets
  - 6.8. Registered Shelters shall be able to change Pet's Availability for Adoption
7. Registered Pet Owner
  - 7.1. Registered Pet Owners shall inherit the functionality given to Registered Users
  - 7.2. Registered Pet Owners shall be able to add Pets to their Account
  - 7.3. Registered Pet Owners shall be able to delete Pets from their Account
  - 7.4. Registered Pet Owners shall be able to edit the Profiles of their Pet(s)
  - 7.5. Registered Pet Owners shall be able to change the ownership of their Pets
  - 7.6. Registered Pet Owners shall be able to change Pet's Availability for Adoption
8. Pet
  - 8.1. Pets shall allow General Users to filter pets by age

- 8.2. Pets shall allow General Users to filter pets by size
  - 8.3. Pets shall allow General Users to filter pets by color
  - 8.4. Pets shall allow General Users to filter pets by breed
  - 8.5. Pets shall allow General Users to filter pets by type
9. Profile
- 9.1. Profiles shall be able to display a Profile picture
  - 9.2. Profiles shall be able to display Photos posted by the Registered User it belongs to
  - 9.3. Profiles shall be able to display an About Me (biography)
  - 9.4. Profiles shall provide a way for the browsing Registered User to send a private Message to the profile's affiliated Registered User
  - 9.5. Profiles shall display follows.
  - 9.6. Profile shall display a Registered User's Online Status
10. Pet Profile
- 10.1. Pet Profile shall inherit the functionality given to Profiles
  - 10.2. Pet Profile shall be able to provide a link to the Registered Pet Owner that owns the Pet that the Pet Profile belongs to
  - 10.3. Pet Profile shall be able to provide a link to the Registered Shelter that owns the Pet that the Pet Profile belongs to
  - 10.4. Pet Profile shall be able to display Pet's Availability for Adoption
  - 10.5. Pet Profile shall display a Pet's Owner's Online Status
  - 10.6. Pet Profile Picture shall be able to be changed by their Owner
  - 10.7. Pet Profile About Me shall be able to be changed by their Owner
11. Registered Pet Owner Profile
- 11.1. Registered Pet Owner profiles shall inherit the functionality given to Profiles
  - 11.2. Registered Pet Owner Profiles shall provide links to Pet Profiles of pets owned by the Registered Pet Owner
12. Registered Business Profile
- 12.1. Registered Business Profiles shall inherit the functionality given to Profiles
  - 12.2. Registered Business Profiles shall be able to provide Contact Details
  - 12.3. Registered Business Profiles shall be viewable by General Users
13. Registered Shelter Profile
- 13.1. Registered Shelter Profiles shall inherit the functionality given to Profiles

- 13.2. Registered Shelter Profiles shall be able to provide Contact Details
- 13.3. Registered Shelter Profiles shall be viewable by General Users
- 13.4. Registered Shelter Profiles shall provide links to Pet Profiles of pets housed by the Registered Shelter

#### 14. Posts

- 14.1. Posts shall display the Display Name of the Registered User who posted them
- 14.2. Posts shall direct Registered Users to the Profile of Registered User who posted them
- 14.3. Posts shall be able to be edited after they are posted by the Registered Users who created them
- 14.4. Posts shall be able to be liked by Registered Users
- 14.5. Posts shall be able to be commented on by Registered Users
- 14.6. Posts shall allow General Users to view the time they were posted
- 14.7. Posts shall allow General Users to view the date they were posted
- 14.8. Posts shall be able to display the number of likes.
- 14.9. Posts shall be able to be deleted by the Registered User who posted them
- 14.10. Posts shall be able to include a Photo

#### 15. Comments

- 15.1. Comments shall display the Display Name of the Registered User who posted the comment
- 15.2. Comments shall direct Registered Users to the Profile of Registered User who posted the comment
- 15.3. Comments shall be able to be Liked.
- 15.4. Comments shall be able to display the number of likes.
- 15.5. Comments shall be able to be deleted by the user who posted them.
- 15.6. Comments shall allow General Users to view the time they were posted.
- 15.7. Comments shall allow General Users to view the date they were posted.

#### 16. Messages

- 16.1. Messages shall be sent from Registered User to Registered User
- 16.2. Messages shall be viewable by the Registered User it was sent to
- 16.3. Messages shall be viewable by the Registered User it was sent by
- 16.4. Messages shall be able to be replied to
- 16.5. Messages shall allow Registered Users to view the sent time
- 16.6. Messages shall allow Registered Users to view the Display Name of the Registered User who sent the Message
- 16.7. Messages shall allow users to provide a Subject

16.8. Messages shall allow users to provide a Body

17. Follows

17.1. Follows shall provide a way for Registered Users to access the Profile of the Registered Users who they are Following

18. Followers

18.1. Followers shall provide a way for Registered Users to access the Profile of the Registered Users who they are Following

19. Feed

19.1. Feed shall display the Recent Posts of the Registered Users that a Registered User is Following

19.2. Feed shall allow Registered Users to post Posts

19.3. Feed shall display the Recent Posts of Registered Business with a Premium Business Account.

20. Map Search

20.1. Map Search shall display the location of Registered Businesses.

20.2. Map Search shall display the location of Registered Shelter

20.3. Map Search shall display the Pets located at Shelters

20.4. Map Search shall allow General Users to search Pets

20.5. Map Search shall allow General Users to search Registered Businesses

20.6. Map Search shall allow General Users to search Registered Shelters

20.7. Map Search shall allow General Users to filter results by Proximity

20.8. Map Search shall allow General Users to filter Pet results by Breed

20.9. Map Search shall allow General Users to filter Pet results by Type

20.10. Map Search shall allow General Users to filter Pet results by Age

20.11. Map Search shall allow General Users to filter Pet results by Color

20.12. Map Search shall allow General Users to filter Pet results by Size

20.13. Map Search shall allow General Users to sort Pet results by Age

20.14. Map Search shall allow General Users to sort Pet results by Pet Account Age

20.15. Map Search shall allow General Users to sort Registered Business results by Proximity

20.16. Map Search shall allow General Users to sort Registered Business results by Category (checkboxes of business categories)

20.17. Map Search shall allow General Users to sort Registered Shelter results by Proximity

- 20.18. Map Search shall allow General Users to sort Registered Shelter results by Types Of Pets
  - 20.19. Map Search shall allow General Users to search Pets by Name
  - 20.20. Map Search shall allow General Users to search Pets by Type
  - 20.21. Map Search shall allow General Users to search Pets by Breed
  - 20.22. Map Search shall allow General Users to search Pets by Color
  - 20.23. Map Search shall allow General Users to search Pets by Size
  - 20.24. Map Search shall allow General Users to search Pets by Age
  - 20.25. Map Search shall allow General Users to search Registered Businesses by Name
  - 20.26. Map Search shall allow General Users to search Registered Businesses by Address
  - 20.27. Map Search shall allow General Users to search Registered Businesses by Category
  - 20.28. Map Search shall allow General Users to search Registered Shelters by Name
  - 20.29. Map Search shall allow General Users to search Registered Shelters by Address
  - 20.30. Map Search shall allow General Users to search Registered Shelters by Available Types of Pets
21. Notification
    - 21.1. Notifications shall display when a Registered User receives a Message

## **Priority 2:**

1. General Users
  - 1.1. General Users shall be able to send a Message to Registered Businesses
  - 1.2. General Users shall be able to send a Message to Registered Shelters
  - 1.3. Messages can be sent from General Users to Registered Shelters
  - 1.4. Messages can be sent from General Users to Registered Businesses
  - 1.5.
  - 1.6. General Users shall be able to receive correspondence from Registered Businesses at an email address provided by them
  - 1.7. General Users shall be able to receive correspondence from Registered Shelter at an email address provided by them
  - 1.8. General Users can filter for adoptable pets (owned by Shelters)
  - 1.9. General Users shall be able to search followers
  - 1.10. General Users shall be able to filter followers
  - 1.11. General Users shall be able to sort followers

- 1.12. General Users shall be able to search reviews
  - 1.13. General Users shall be able to filter reviews
  - 1.14. General Users shall be able to sort reviews
  - 1.15. General Users shall be able to search messages
  - 1.16. General Users shall be able to filter messages
  - 1.17. General Users shall be able to sort messages
3. Registered Users
- 3.1. Registered Users shall be able to Flag Posts
  - 3.2. Registered Users shall be able to Flag Comments
  - 3.3. Registered Users shall be able to Flag Messages
  - 3.4. Registered Users shall be able to attach images to messages
4. Admin
- 4.1. Admin shall be able to Delete Photos posted by Registered Users
  - 4.2. Admin shall be able to browse Registered User Profiles
  - 4.3. Admin shall be able to Delete Posts
  - 4.4. Admin shall be able to Delete Comments from Posts
  - 4.5. Admin shall be able to ban Accounts
  - 4.6. Admin shall be able to remove Accounts
  - 4.7. Admin shall be able to reactivate Accounts
  - 4.8. Admin shall be able to Message Registered Users
  - 4.9. Admin shall be able to approve Registered Businesses for use of the site
  - 4.10. Admin shall be able to approve Registered Shelters for use of the site
7. Registered Pet Owner
- 7.1. Registered Pet Owners shall be able to leave Reviews to Registered Business
  - 7.2. Registered Pet Owners shall be able to leave Reviews to Registered Shelter.
  - 7.3. Registered Pet Owners shall be able to leave Ratings to Registered Business.
  - 7.4. Registered Pet Owners shall be able to leave Ratings to Registered Shelter.
  - 7.5. Registered Pet Owners shall be able to leave Reviews to Parks.
  - 7.6. Registered Pet Owners shall be able to leave Ratings to Parks.
8. Pets
- 8.1. Pets shall be able to be marked as missing Pets by their owners

9. Profile
  - 9.1. Profiles shall display recent Posts
10. Pet Profile
  - 10.1. Pet Profiles shall be able to display Siblings
  - 10.2. Pet Profiles shall display if the Pet is missing
12. Registered Business Profile
  - 12.1. Registered Business Profiles shall provide a way for Registered Pet Owners to view Registered Business Reviews
  - 12.2. Registered Business Profiles shall provide a way for Registered Pet Owners to view Registered Business Ratings
  - 12.3. Registered Business Profiles shall provide a way for Registered Pet Owners to view a Registered Business's Average Rating
  - 12.4. Registered Business Profiles shall provide a way for Registered Pet Owners to leave Ratings
13. Registered Shelter Profile
  - 13.1. Registered Shelter Profiles shall provide a way for Registered Pet Owners to view Reviews
  - 13.2. Registered Shelter Profiles shall provide a way for Registered Pet Owners to view Ratings
  - 13.3. Registered Shelter Profiles shall provide a way for Registered Pet Owners to view Registered Business Reviews
  - 13.4. Registered Shelter Profiles shall provide a way for Registered Pet Owners to view their Ratings
  - 13.5. Registered Shelter Profiles shall provide a way for Registered Pet Owners
15. Comments
  - 15.1. Comments shall be able to be edited by the user who posted them
16. Messages
  - 16.1. Messages shall be deletable by the Registered User who receives them
  - 16.2. Messages shall be deletable by the Registered User who sends them
  - 16.3. Message Thread shall be deletable
20. Map Search
  - 20.1. Map Search shall display the location of Parks

- 20.2. Map Search shall allow General Users to sort Registered Business results by Average Rating
  - 20.3. Map Search shall allow General Users to sort Registered Shelter results by Average Rating
21. Notification
- 21.1. Notifications shall display when a Registered User's Post is Liked
  - 21.2. Notifications shall display when a Registered User's Comment is Liked
  - 21.3. Notifications shall display when a Registered User gains a Follower
  - 21.4. Notifications shall display when a Registered User's Post is Commented on
22. Park
- 22.1. Parks shall be able to be created by Registered Users
  - 22.2. Parks shall be able to be edited by Registered User(s)
  - 22.3. Parks shall be searchable by General Users
  - 22.4. Parks shall display an Average Rating
23. Park Profile
- 23.1. Park Profiles shall provide a way for Registered Pet Owners to view Reviews
  - 23.2. Park Profiles shall provide a way for Registered Pet Owners to view Ratings
  - 23.3. Park Profiles shall display Photos uploaded by Registered Users
  - 23.4. Park Profiles shall display an Address uploaded by a Registered User
  - 23.5. Park Profiles shall display Hours uploaded by a Registered User
  - 23.6. Park Profiles shall display an About section edited by a Registered User
  - 23.7. Park Profiles shall be viewable by General Users
24. Reviews
- 24.1. Reviews shall be editable by the Registered Pet Owners who posted them.
  - 24.2. 25.2 Reviews shall be provided with a Summary.
  - 24.3. 25.3 Reviews shall be provided with a Body.
  - 24.4. Reviews shall be able to be viewed by General Users
  - 24.5. Reviews shall display a creation date
  - 24.6. Review shall display the last edited date
  - 24.7. Reviews shall display their Author
  - 24.8. Reviews shall provide a link to their Author's Profile

25. Ratings

- 25.1. Ratings shall be able to be edited by the Registered User who gave the Rating

**Priority 3:**

3. Registered Users

- 3.1. Registered Users shall be able to Flag Forum Threads
- 3.2. Registered Users shall be able to Flag Forum Posts
- 3.3. Registered Users shall be able to hide Posts on their Feed
- 3.4. Registered Users shall be able to hide Comments on their Posts
- 3.5. Registered Users shall be able to retract their flags
- 3.6. Registered Users shall be able to add Registered Users to their Block List
- 3.7. Registered Users shall be able to remove Registered Users from their Block List.
- 3.8. Registered Users shall be able to apply formatting to their posts in forum threads
- 3.9. Registered Users shall be able to view when a user was last online
- 3.10. Registered Users shall be able to upload multiple photos at once

6. Registered Shelter

- 6.1. Registered Shelters can choose a Pet's Siblings
- 6.2. Registered Shelters shall be able to Post under the name of their Pets.
- 6.3. A Registered Shelter can transfer ownership of their Pets to Registered Pet Owners

7. Registered Pet Owners

- 7.1. Registered Pet Owners can manually enter the Type of their Pet
- 7.2. Registered Pet Owners can manually enter the Breed of their Pets
- 7.3. Registered Pet Owners can choose a Pet's Siblings
- 7.4. Registered Pet Owners shall be able to Post under the name of their Pets
- 7.5. Registered Pet Owners shall be able to send a Friend Request to other Registered Pet Owners
- 7.6. Registered Pet Owners shall be able to accept Friend Requests
- 7.7. Registered Pet Owners shall be able to decline Friend Requests
- 7.8. Registered Pet Owners shall be able to share their Location with Friends
- 7.9. Registered Pet Owner Profiles shall be able to indicate Pet Sitting availability

9. Profiles

- 9.1. Profiles shall display the Recent Activity of a Registered User's Followers

10. Pet Profiles

10.1. Pet Profiles shall be able to display the Registered Shelter they were adopted from

14. Posts

14.1. Posts shall be able to be saved by Registered Users

14.2. Posts can display multiple photos.

14.3. Posts that are liked shall be able to be viewed by the Registered Users who liked them.

14.4. Posts shall be able to be shared by Registered Users

15. Comments

15.1. Comments shall be able to be replied to

16. Messages

16.1. Messages shall allow the General User to read the display name of the Registered Business who sent them the Message

16.2. Messages shall allow the General User to read the display name of the Registered Shelter who sent them the Message

18. Followers

18.1. Followers shall allow Registered Users to search through their Followers

19. Feed

19.1. Feed shall display the most liked Posts of the current day Registered Users

20. Map Search

20.1. Map Search shall display the location of Pets

21. Notifications

21.1. Notifications shall display when a Registered User's Forum Post is Liked

22. Likes

22.1. Likes shall be able to be given to Forum Threads by Registered Users

22.2. Likes shall be able to be given to a Forum Post by Registered Users

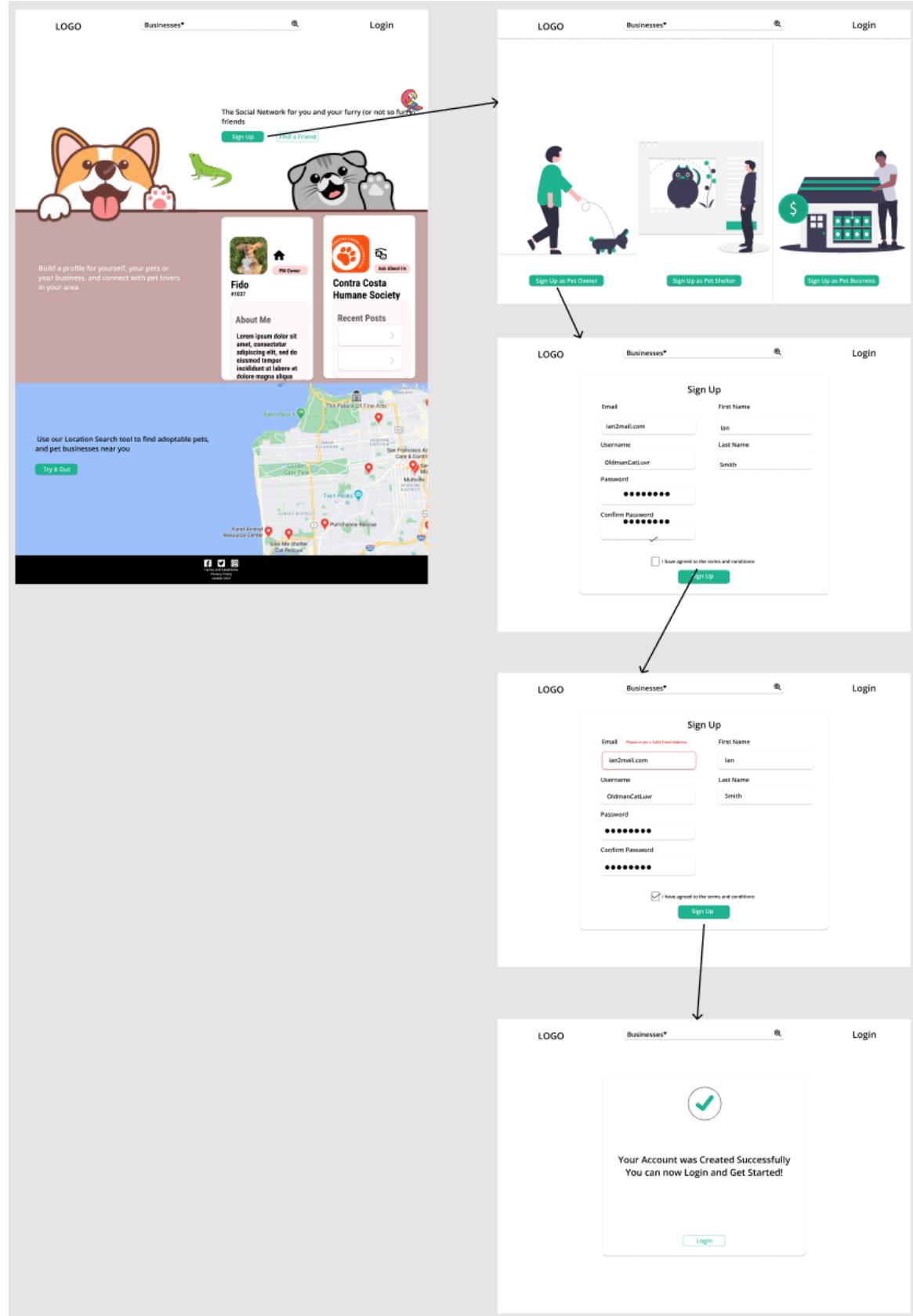
23. Reviews

23.1. Reviews can be updated by the Registered Pet Owner who Posted Them.

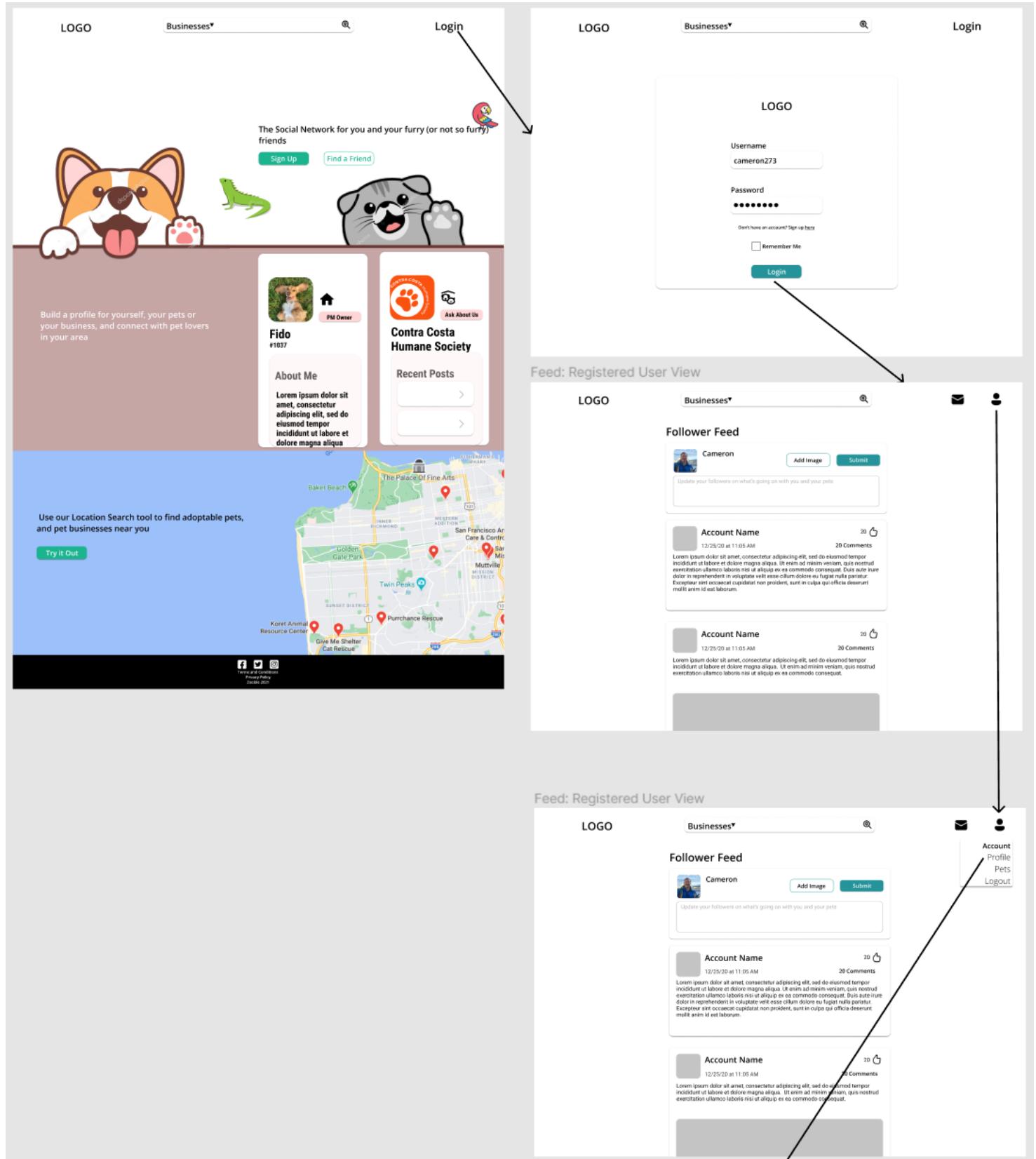
- 24. Chat
  - 24.1. Chats can be sent from Registered User to Registered User
  - 24.2. Chat shall be viewable by the Registered User it was sent to
  - 24.3. Chat shall be viewable by the Registered User it was sent by
  - 24.4. Chat shall be able to be replied to
  - 24.5. Chat shall allow Registered Users to view the sent time
  - 24.6. Chat shall allow Registered Users to view the Display Name of the Registered User who sent the text
  - 24.7. Chat shall be deletable by the Registered User who receives them
  - 24.8. Chat shall be deletable by the Registered User who sends them
- 25. Forums
  - 25.1. Forums shall allow General Users to search through them.
  - 25.2. Forums shall be viewable by General Users.
  - 25.3. Forums shall be searchable by General Users.
  - 25.4. Forums shall be filterable by General Users.
- 26. Premium Business Account
  - 26.1. A Registered Business with a Premium Business Account shall be able to track Advertising Analytics
  - 26.2. A Registered Business with a Premium Business Account shall be able to choose Advertising Time Slots.
- 27. Photos
  - 27.1. Photos shall allow General Users to download them.
- 28. Forum Post
  - 28.1. Forum Post shall be able to be liked by Registered Users.
- 29. Forum Thread
  - 29.1. Forum Threads shall be able to be replied to
  - 29.2. Forum Thread Posts shall Display the Name associated with the post.
- 30. Posts Near You
  - 30.1. Posts Near You shall display the Recent Posts near the General User's location.

## Section III: Wireframes

### Use Case 1



## Use Case 2 (1 of 9)



## Use Case 2 (2 of 9)

The diagram illustrates a user flow through three mobile application screens:

- Top Screen:** A user profile for "Cameron". It includes a profile picture, the name "Cameron", a "Followers" button, a bio placeholder, and sections for "My Photos" and "My Pets".
- Middle Screen:** A list titled "My Pets" showing five items, each with a "Navigate to Profile (Within a List Format)" button.
- Bottom Screen:** A detailed view for a specific pet, showing fields for "Pet Name" and "the Pet Type/Breed", a "Followers" button, an "About Me" section, and sections for "Photos" and "Siblings".

Annotations indicate the flow from the top screen to the middle screen, and from the middle screen to the bottom screen.

**Top Screen Details:**

- Header:** LOGO, Businesses, Search icon, Message icon, Profile icon.
- Profile Section:** Cameron, Followers, Bio placeholder (Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.).
- Media Sections:**
  - My Photos:** Placeholder with a plus sign, "See All/Edit" button.
  - My Pets:** Placeholder with a plus sign, "Name Name Name Name Name" button, "See All/Edit" button.

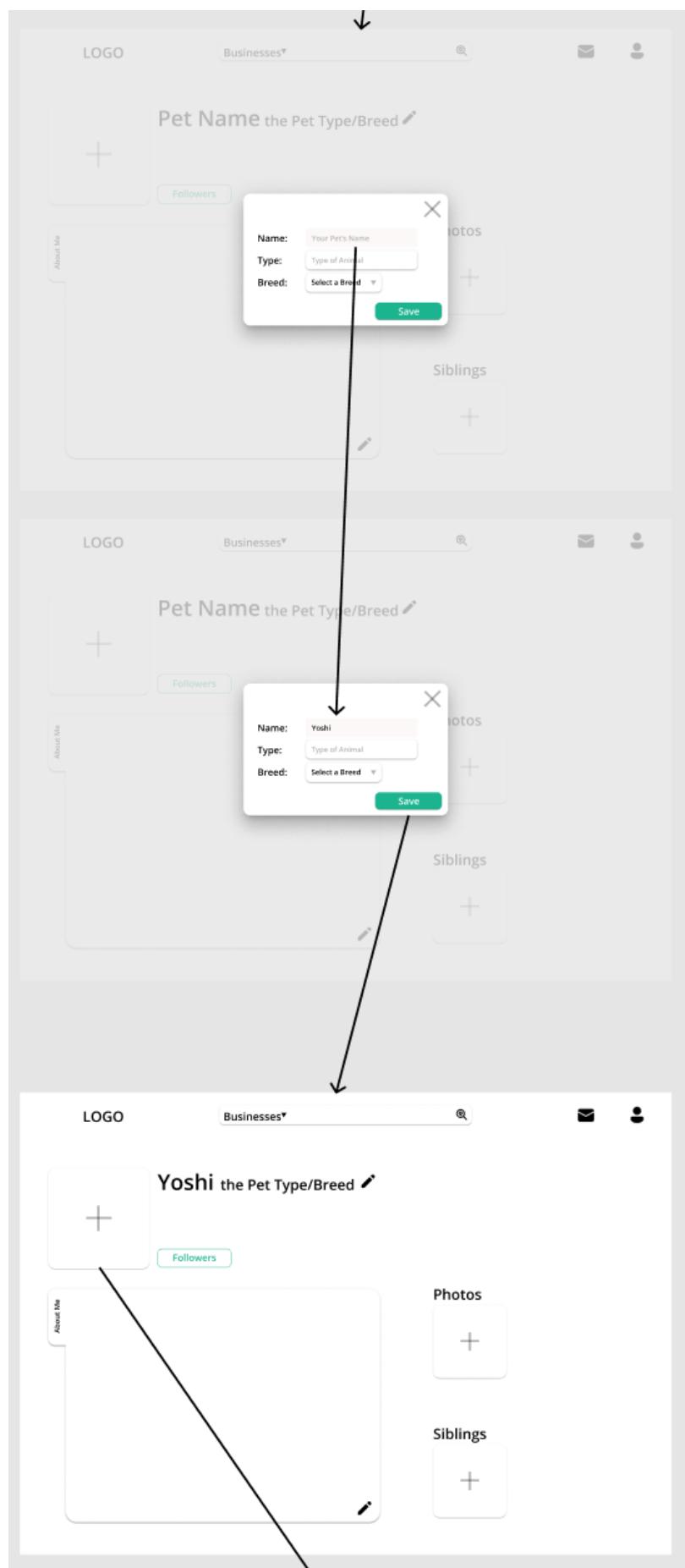
**Middle Screen Details:**

- Header:** LOGO, Pets, Search icon, Message icon, Profile icon.
- Title:** My Pets
- List Items:** Five items, each with a "Navigate to Profile (Within a List Format)" button.

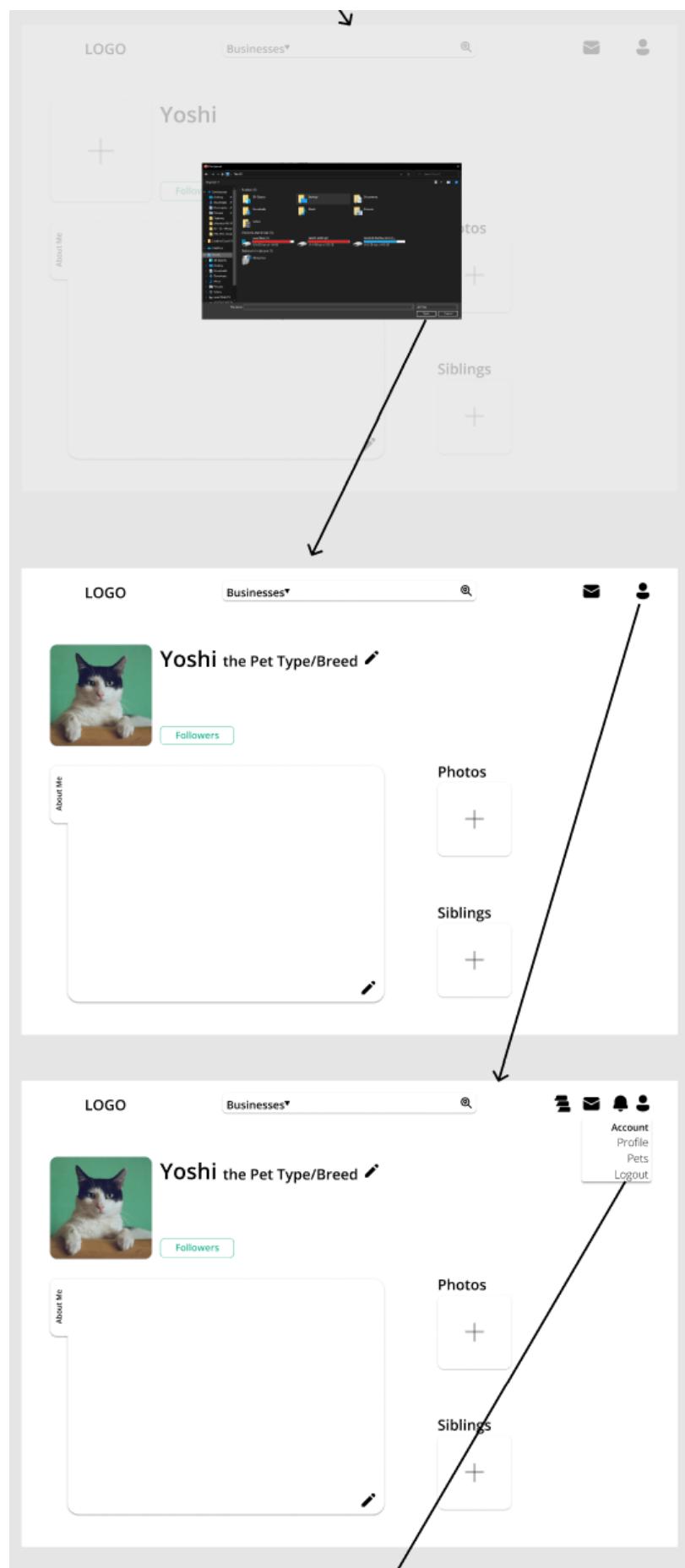
**Bottom Screen Details:**

- Header:** LOGO, Businesses, Search icon, Message icon, Profile icon.
- Profile Section:** Pet Name, the Pet Type/Breed, Followers, About Me.
- Media Sections:**
  - Photos:** Placeholder with a plus sign.
  - Siblings:** Placeholder with a plus sign.

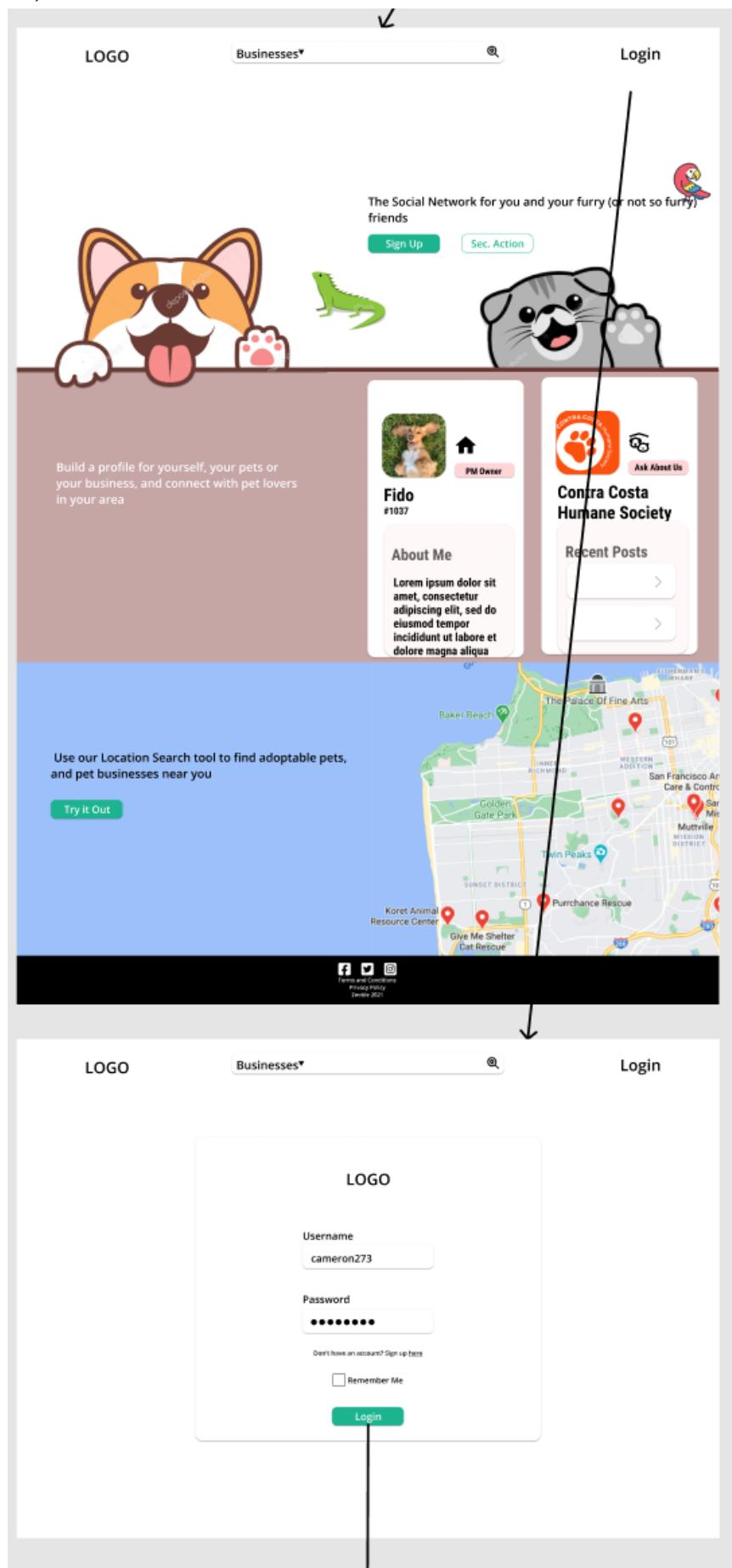
## Use Case 2 (3 of 9)



## Use Case 2 (4 of 9)



## Use Case 2 (5 of 9)



## Use Case 2 (6 of 9)

Feed: Registered User View

**Feed: Registered User View**

LOGO Businesses

**Follower Feed**

Cameron  Add Image  Submit  
Update your followers on what's going on with you and your pets.

Account Name 12/25/20 at 11:05 AM 20 Comments  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Account Name 12/25/20 at 11:05 AM 20 Comments  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

**Feed: Registered User View**

LOGO Businesses

**Follower Feed**

Cameron  Add Image  Submit  
Update your followers on what's going on with you and your pets.

Account Name 12/25/20 at 11:05 AM 20 Comments  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Account Name 12/25/20 at 11:05 AM 20 Comments  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

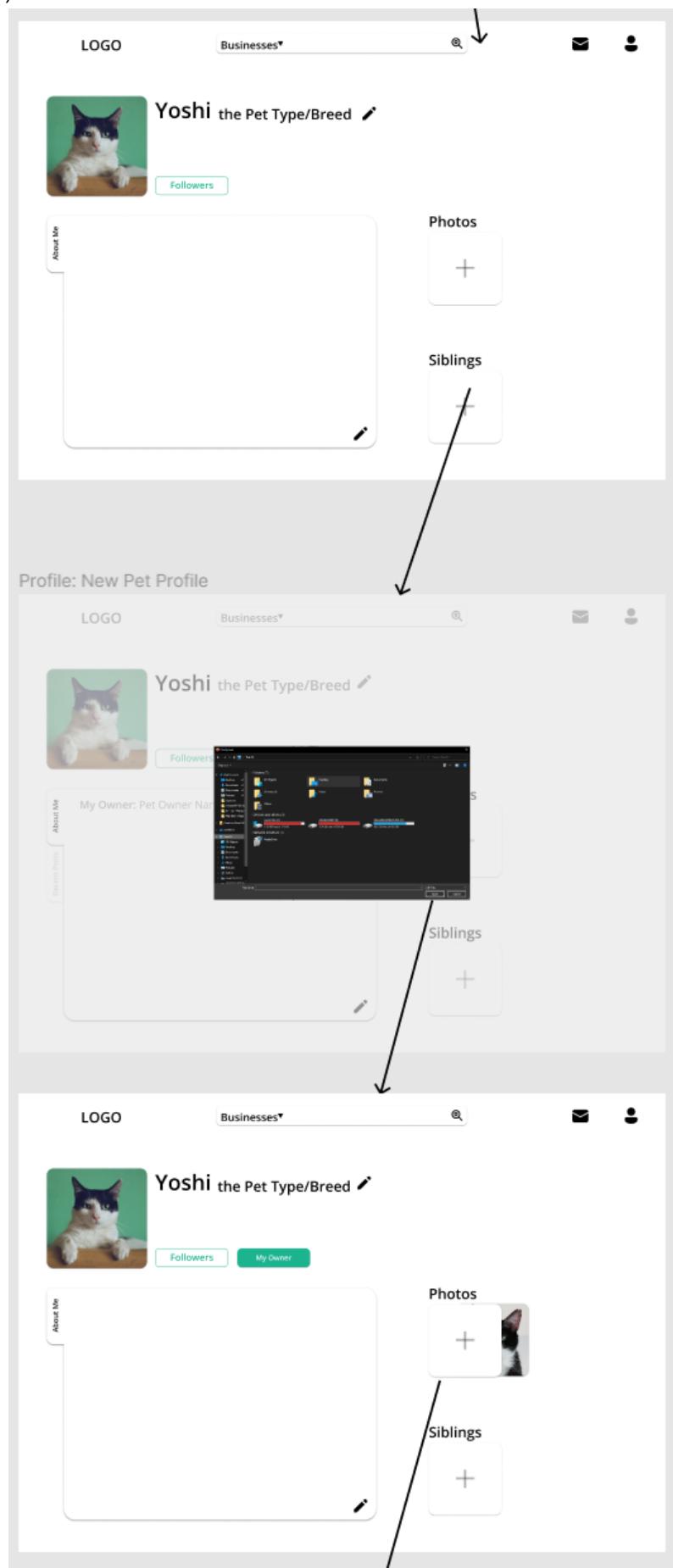
**Feed: Registered User View**

LOGO Pets

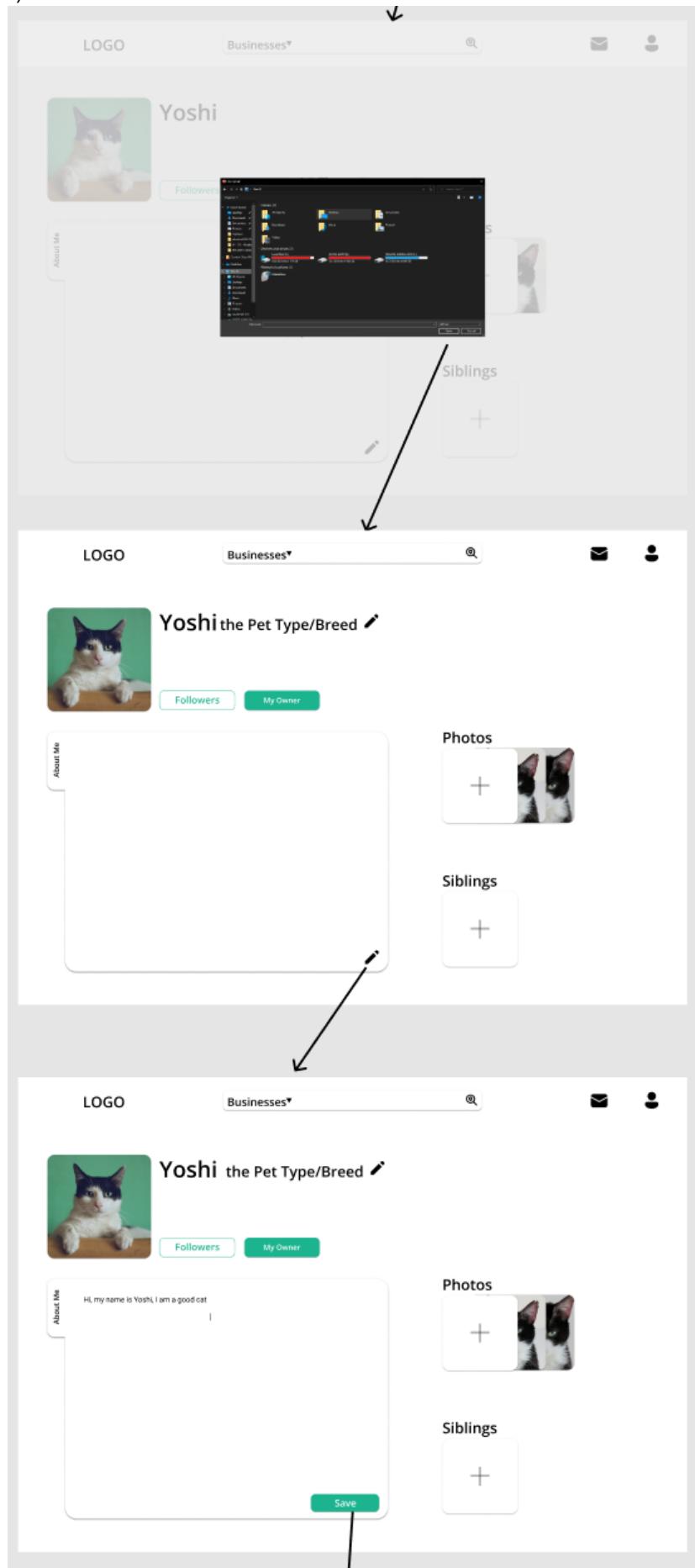
**My Pets**

Add (Within a List Format) Yoshi   
Navigate to Profile (Within a List Format)  Navigate to Profile (Within a List Format)   
Navigate to Profile (Within a List Format)  Navigate to Profile (Within a List Format)   
Navigate to Profile (Within a List Format)  Navigate to Profile (Within a List Format)   
Navigate to Profile (Within a List Format)  Navigate to Profile (Within a List Format)

## Use Case 2 (7 of 9)



## Use Case 2 (8 of 9)



## Use Case 2 (9 of 9)

The image displays a vertical sequence of four screenshots from a mobile application interface, illustrating the process of creating a pet profile.

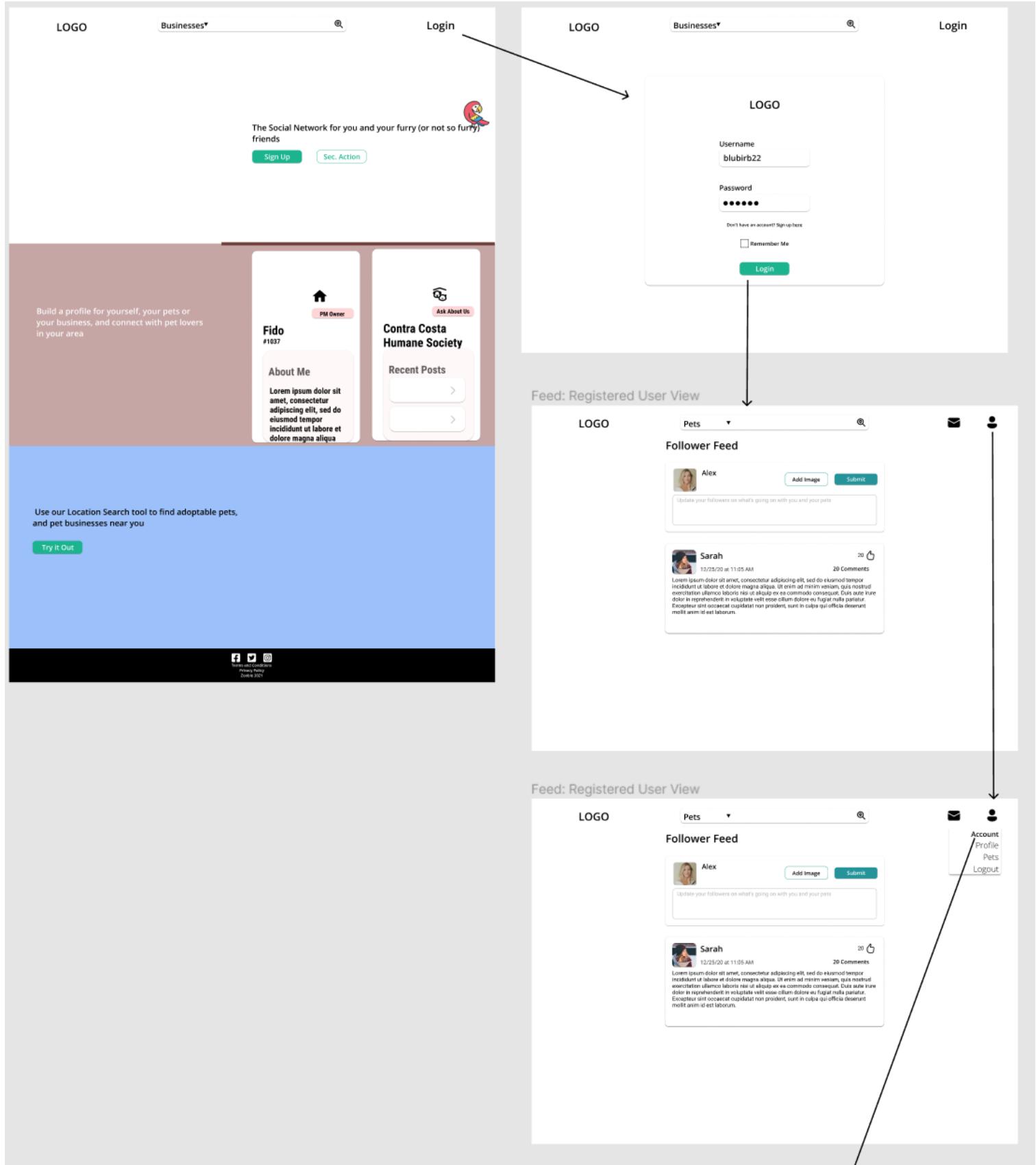
**Screenshot 1:** The initial screen shows a placeholder for a logo and a search bar labeled "Businesses". Below the search bar is a profile card for "Yoshi the Pet Type/Breed". The card features a small image of a black and white cat, a green "Followers" button, and a blue "My Owner" button. A text box contains the message: "Hi, my name is Yoshi, I am a great cat." To the right of the card are sections for "Photos" and "Siblings", each with a plus sign icon.

**Screenshot 2:** A modal dialog box is displayed over the screen. It contains fields for "Name" (Yoshi), "Type" (set to "Type of Animal"), and "Breed" (set to "Select a breed"). A "Save" button is at the bottom right of the dialog.

**Screenshot 3:** The modal dialog box remains open, showing the same form fields and "Save" button.

**Screenshot 4:** The final screen shows the completed profile for "Yoshi the Manx". The profile card now includes the "Manx" breed information. The "Photos" and "Siblings" sections remain the same.

### Use Case 3 (1 of 3)



## Use Case 3 (2 of 3)

LOGO Businesses

**Alex**

**About Me**

Followers Send a Message

My Photos See All/Edit

My Pets See All/Edit

Account: My Followers

LOGO Pets

**Followers (56)** Following (12)

	Joey	>		Sarah	>
	Violet	>		Eric	>
	Kevin	>		Belinda	>
	Ellie	>		Justin	>
	Marcus	>		Kayla	>

Pet Owner Profile - Joey

LOGO Businesses

**Joey**

**About Me**

Following Send a Message

My Photos See All/Edit

My Pets See All/Edit

### Use Case 3 (3 of 3)

Pet Owner Profile - Joey (Sending A Message)

**JOEY**

**Send a Message**

To: Joey

Subject:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor  
 incididunt ut labore et dolore magna aliqua. In dictum non consectetur a erat nam at  
 lectus urna. Ultrices vitae auctor eu augue ut lectus arcu. In ante metus dictum at  
 tempor commodo. Adipiscing vitae proin sagittis nisl. In eu mi bibendum neque. Sociis  
 natoque penatibus et magnis. Aliquam sem et tortor consequat id porta nibh venenatis  
 cras. Elementum nisi quis eleifend quam adipiscing vitae proin sagittis nisl. Placerat  
 duis ultricies lacus sed turpis tincidunt. Ut placerat orci nulla pellentesque dignissim  
 enim sit amet venenatis. Sit amet consectetur adipiscing elit ut aliquam. Lacus vel  
 facilisis volutpat est velit egestas dui id.

**Send**

**Photos**

**Felix** **ena**

See All/Edit

**About Me**

**Following**

**Send a Message**

**Businesses**

**My Photos**

**Felix** **ena**

See All/Edit

**My Pets**

**See All/Edit**

Pet Owner Profile - Joey (Message Sent)

## Use Case 4 (1 of 2)

The image displays two side-by-side screenshots of a pet social network website, illustrating a user profile view and a map search feature.

**Left Screenshot (User Profile View):**

- Header:** LOGO, Businesses\*, Search icon, Login, Sign Up, Sec. Action.
- Top Content:** "The Social Network for you and your furry (or not so furry) friends".
- Profile Cards:**
  - Fido #1037:** PM Owner. Includes a photo of a small dog, a house icon, and an "About Me" section with placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua".
  - Contra Costa Humane Society:** Ask About Us. Includes a paw print icon and a "Recent Posts" section with two arrows indicating more content.
- Text:** "Build a profile for yourself, your pets or your business, and connect with pet lovers in your area".
- Map:** A map of San Francisco showing various locations related to pets and animals, such as Baker Beach, The Palace Of Fine Arts, Golden Gate Park, Twin Peaks, and several animal shelters like Koret Animal Resource Center, Give Me Shelter Cat Rescue, and Purrchance Rescue.
- Buttons:** Try it Out.
- Footer:** Social media icons (Facebook, Twitter, Instagram), Terms and Conditions, Privacy Policy, and Copyright notice (Zoozie 2021).

**Right Screenshot (User Profile View):**

- Header:** LOGO, Pets\*, Search icon, Login, Sign Up, Sec. Action.
- Top Content:** "The Social Network for you and your furry (or not so furry) friends".
- Profile Cards:**
  - Fido #1037:** PM Owner. Includes a photo of a small dog, a house icon, and an "About Me" section with placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua".
  - Contra Costa Humane Society:** Ask About Us. Includes a paw print icon and a "Recent Posts" section with two arrows indicating more content.
- Text:** "Build a profile for yourself, your pets or your business, and connect with pet lovers in your area".
- Map:** A map of San Francisco showing various locations related to pets and animals, similar to the left screenshot.
- Buttons:** Try it Out.
- Footer:** Social media icons (Facebook, Twitter, Instagram), Terms and Conditions, Privacy Policy, and Copyright notice (Zoozie 2021).

## Use Case 4 (2 of 3)

The screenshot shows a mobile application interface. At the top, there is a navigation bar with a logo, a search bar containing the name "Sasha", and a "Login" button. Below the navigation bar is a map of a city area, specifically Walnut Creek, California. The map displays various locations such as "You Luckie Dog! Doggie Daycare Resort & Spa", "Trader Joe's", "Sunvalley Shopping Center", "Costco Wholesale", "Pleasant Hill", "Walnut Creek", and "Lafayette". A yellow route line is drawn across the map, starting from the northwest and ending near the southeast. To the right of the map is a "Results" section titled "Filter" with a "Sort By" dropdown. This section lists ten items, each represented by a small thumbnail image and the text "Pet Name". A diagonal line with an arrow points from the "Results" section down to the "Pet Profile - Sasha" section.

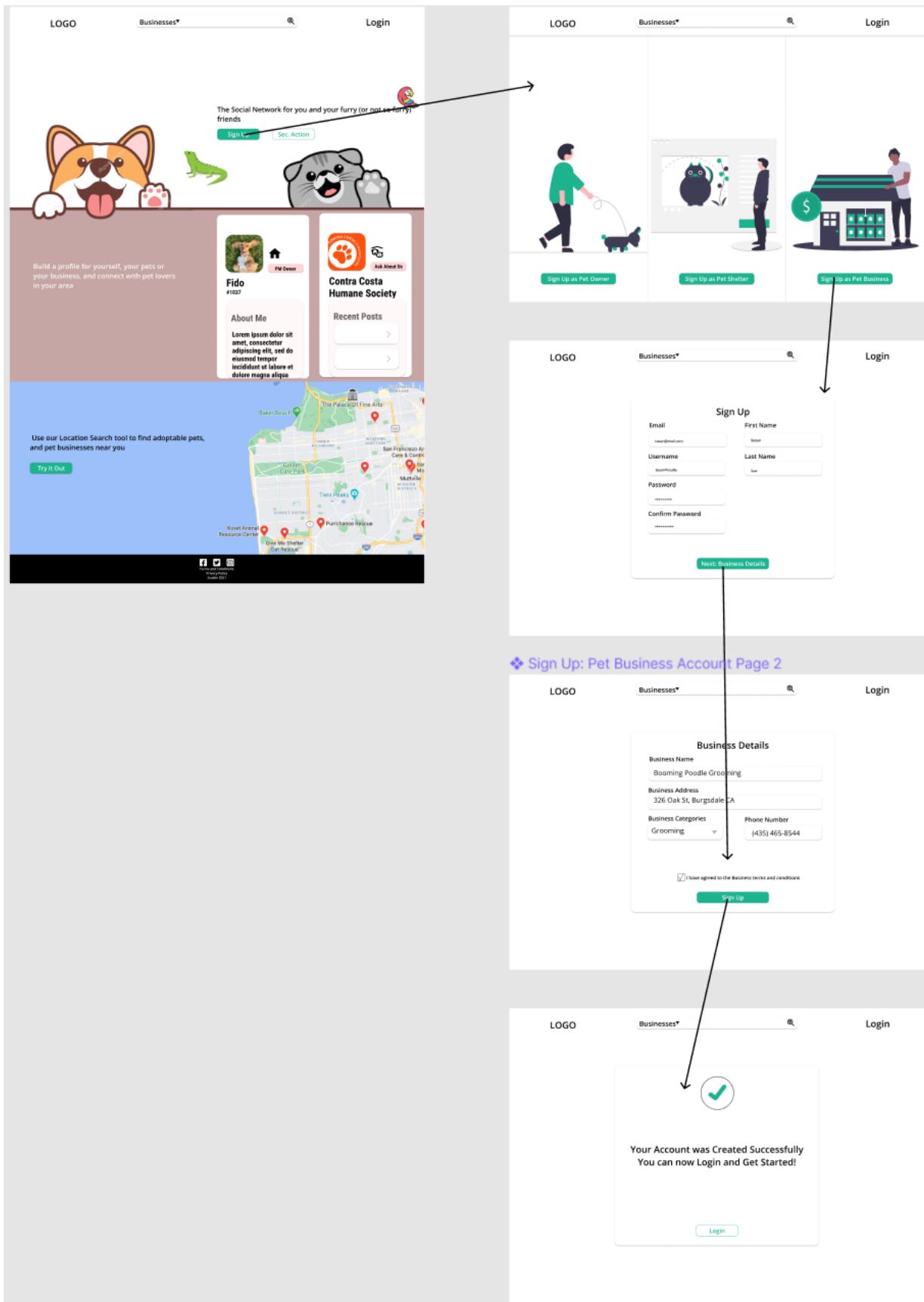
The screenshot shows a detailed view of a pet profile for a dog named "Sasha". At the top, there is a header with a logo, a search bar containing "Sasha", and a "Login" button. Below the header is a large image of a black and white Border Collie dog. The name "Sasha" is displayed prominently next to the image. Below the image are two buttons: "Followers" and "Send a Message". On the left side of the profile page, there is a sidebar with a "About Me" section containing placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. In dictum non consectetur a erat nam at lectus urna. Ultrices vitae auctor eu augue ut lectus arcu. In ante metus dictum at tempor commodo. Adipiscing vitae proin sagittis nisl. In eu mi bibendum neque. Socis natoque penatibus et magnis. Aliquam sem et tortor consequat id porta nibh venenatis cras. Elementum nisi quis eleifend quam adipiscing vitae proin sagittis nisl. Placerat quis ultricies lacus sed turpis tincidunt. Ut placerat orci nulla pellentesque dignissim enim sit amet venenatis. Sit amet consectetur adipiscing elit ut aliquam. Lacus vel facilisis volutpat est velit egestas dui id.". To the right of the profile picture, there is a section titled "My Photos" which shows four thumbnail images of the dog. Below this is a section titled "Siblings" which shows a thumbnail image of a cat with the names "Momo" and "ena" underneath. At the bottom right, there is a "See All/Edit" button.

## Use Case 4 (3 of 3)

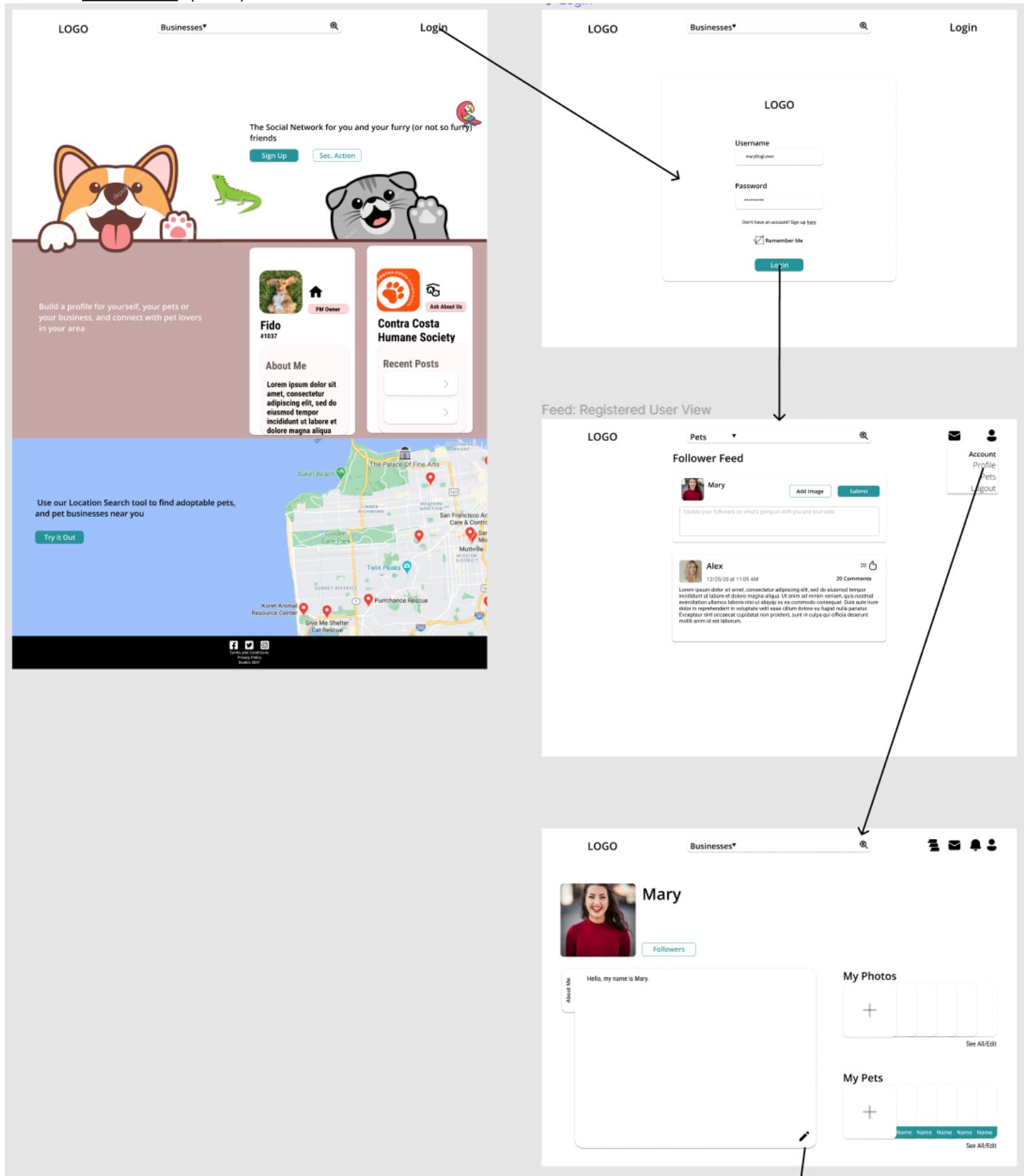
The image displays three screenshots of a mobile application interface for a pet grooming business:

- Screenshot 1: Pet Profile: View Post**  
This screen shows a grid of photos for "Sasha's Photos". A specific photo of a black and white dog is selected, and a large arrow points from this photo down to the next screen.
- Screenshot 2: Pet Business Profile: Self View**  
This screen shows a map of a city area with several locations marked. A large arrow points from the top right of this screen down to the third screen.
- Screenshot 3: Pet Business Profile: Self View**  
This screen shows the profile for "Booming Poodle Grooming". It includes the business name, address (326 Oak St, Burgsdale CA), phone number (435) 465-8544, and a list of hours (Sun: Closed, Mon-Fri: 12:00 AM - 12:00 AM, Sat: Closed). There are also sections for "Photos" and "Follow" / "Send a Message".

## Use Case 5 (1 of 3)



## Use Case 6 (1 of 3)



## Use Case 6 (2 of 3)

The diagram illustrates a user profile update process across two screens of a mobile application.

**Top Screen (Initial State):**

- User Profile:** Shows a placeholder "LOGO" and a profile picture of a woman named **Mary**. Below her name is a button labeled **Followers**.
- About Me:** A text area containing placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. In dictum non consectetur a erat nam at lectus urna. Ultrices vitae auctor eu augue ut lectus arcu. In ante metus dictum at tempor commodo. Adipiscing vitae proin sagittis nisl. In eu mi bibendum neque. Sociis natoque penatibus et magnis. Aliquam sem et tortor consequat id porta nibh venenatis cras. Elementum nisi quis eleifend quam adipiscing vitae proin sagittis nisl. Placerat quis ultricies lacus sed turpis tincidunt. Ut placerat orci nulla pellentesque dignissim enim sit amet venenatis. Sit amet consectetur adipiscing elit ut aliquam. Lacus vel facilisis volutpat est velit egestas dui id." This text is preceded by a small "About Me" label.
- Save Button:** A large orange button labeled **Save** is positioned below the "About Me" text.
- Header:** The header includes the placeholder "LOGO", a dropdown menu labeled "Businesses", a search icon, and notification icons.

**Bottom Screen (Final State):**

- User Profile:** The profile picture of **Mary** now has a red border, indicating it has been updated.
- About Me:** The same "About Me" text area is present.
- Edit Icon:** A small edit icon (pencil) is located in the bottom right corner of the "About Me" text area.
- Header:** The header is identical to the top screen.

**Navigation:** Two large black arrows indicate the flow from the initial state to the final state. One arrow points from the "Save" button down to the edit icon. Another arrow points from the top screen down to the bottom screen, spanning the entire width of the application interface.

### Use Case 6 (3 of 3)

The diagram illustrates two views of a follower feed, connected by a large downward arrow pointing from the Admin View to the Registered User View.

**Feed: Registered User View**

This view shows a simplified version of the follower feed. It includes:

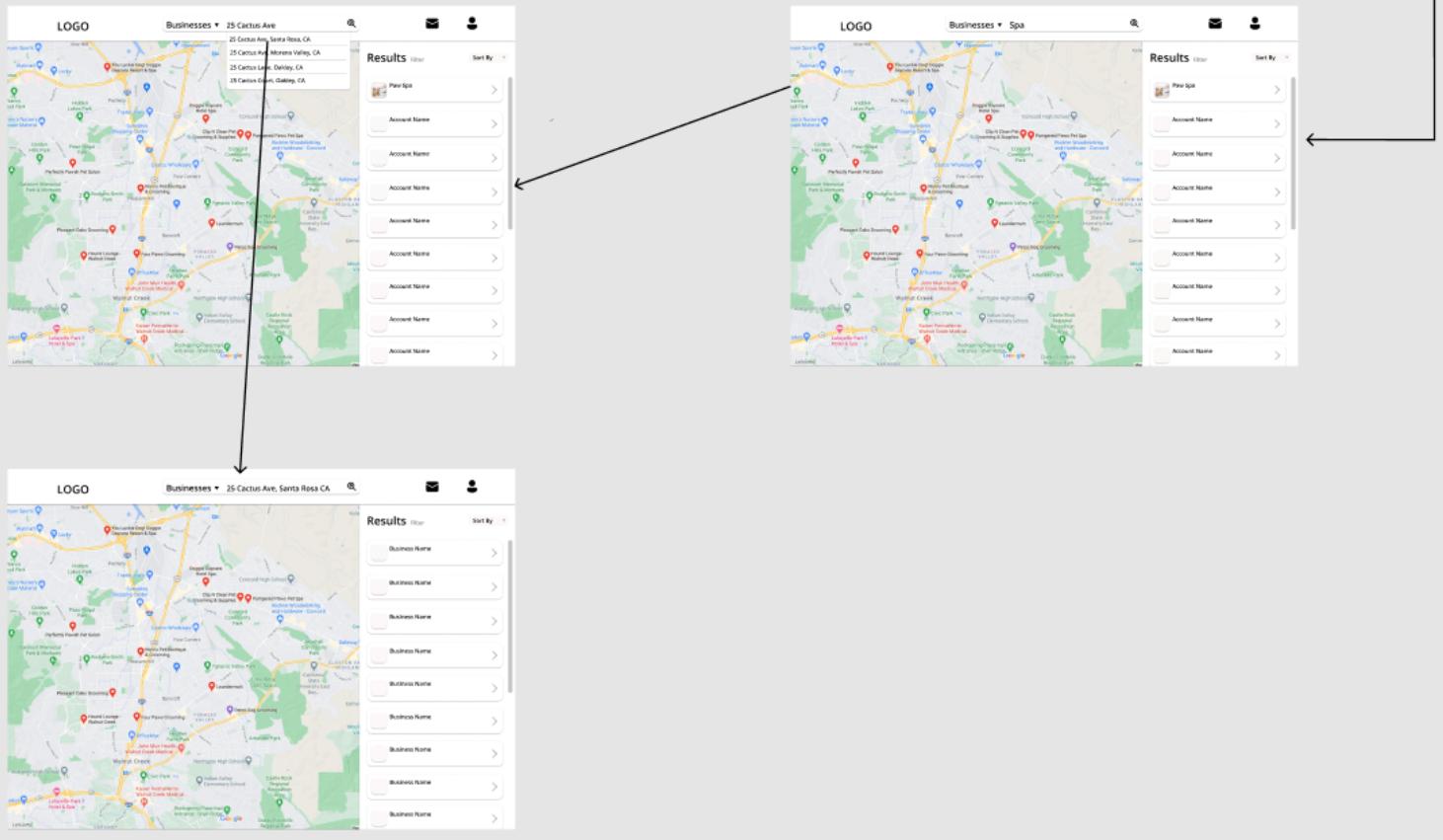
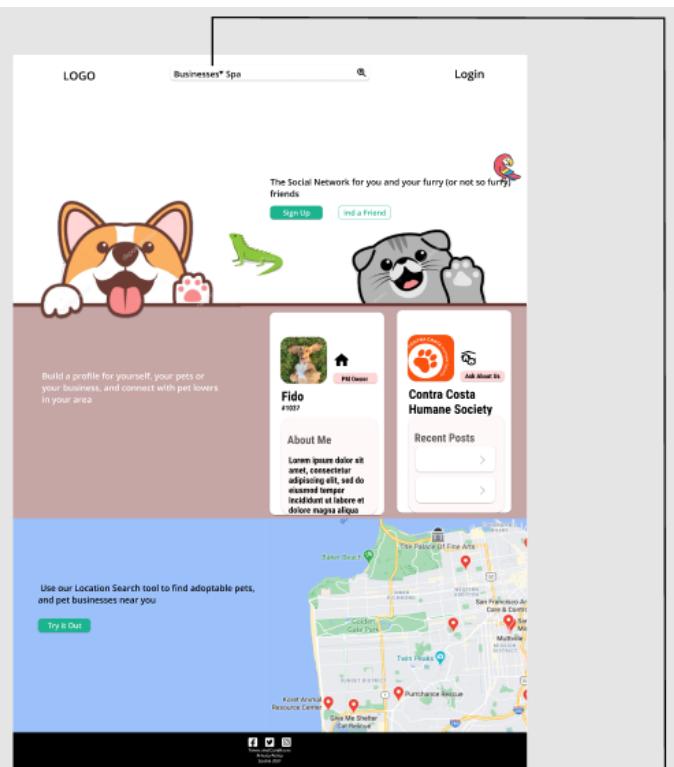
- A header with a logo, search bar, and user icons.
- A title "Follower Feed".
- A post from "Mary" with the text "New Puppy is Growing".
- A post from "Account Name" with the text "12/25/20 at 11:05 AM" and "20 Comments".
- A post from "Account Name" with the text "12/25/20 at 11:05 AM" and "20 Comments".

**Feed: Admin View**

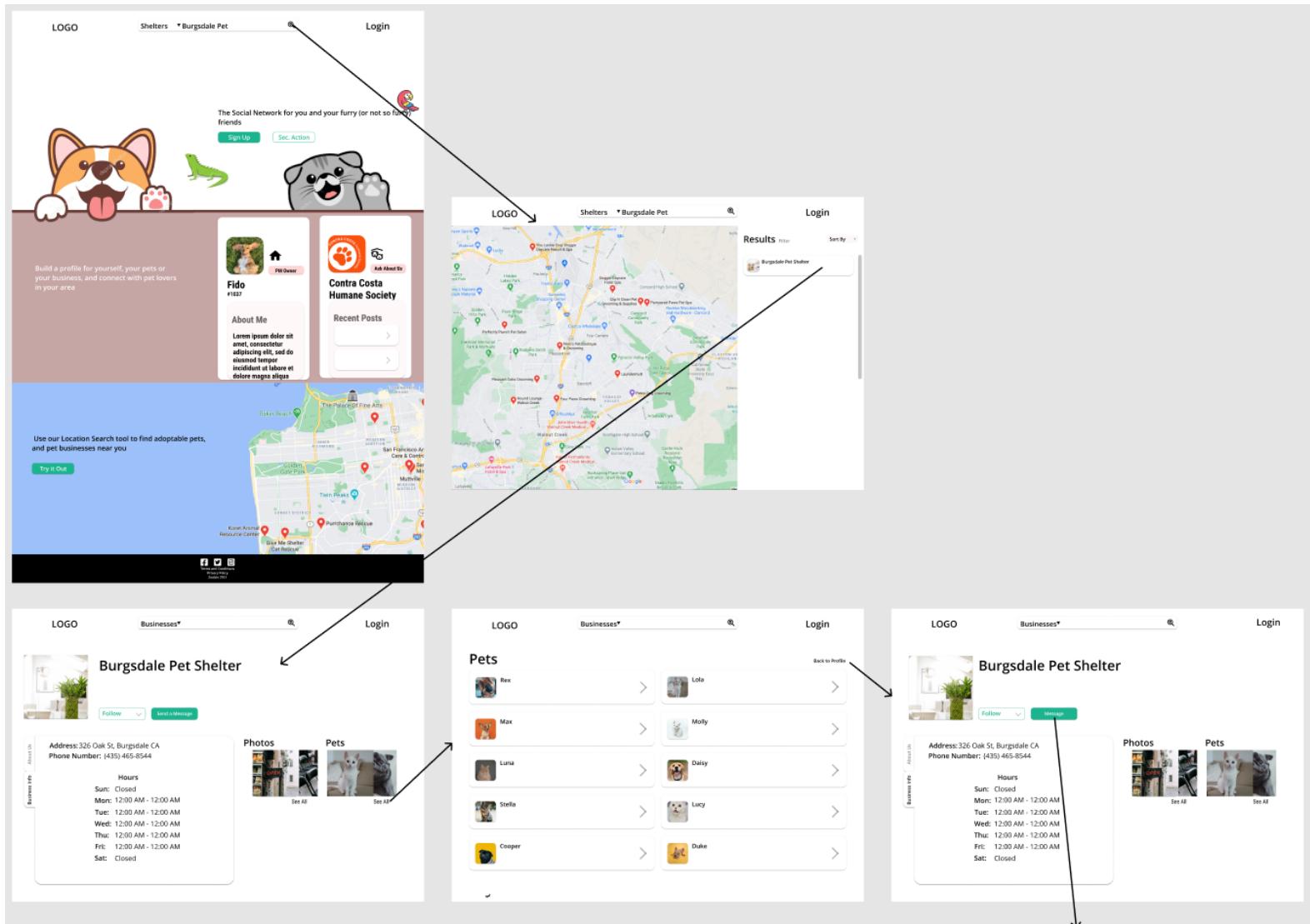
This view shows a more detailed and expanded version of the follower feed. It includes:

- A header with a logo, search bar, and user icons.
- A title "Follower Feed".
- A post from "Mary" with the text "Update your followers on what's going on with you and your pets".
- A post from "Mary" with the text "12/25/20 at 11:05 AM" and "0 Comments".
- A post from "Account Name" with the text "12/25/20 at 11:05 AM" and "20 Comments".
- A post from "Account Name" with the text "12/25/20 at 11:05 AM" and "20 Comments".

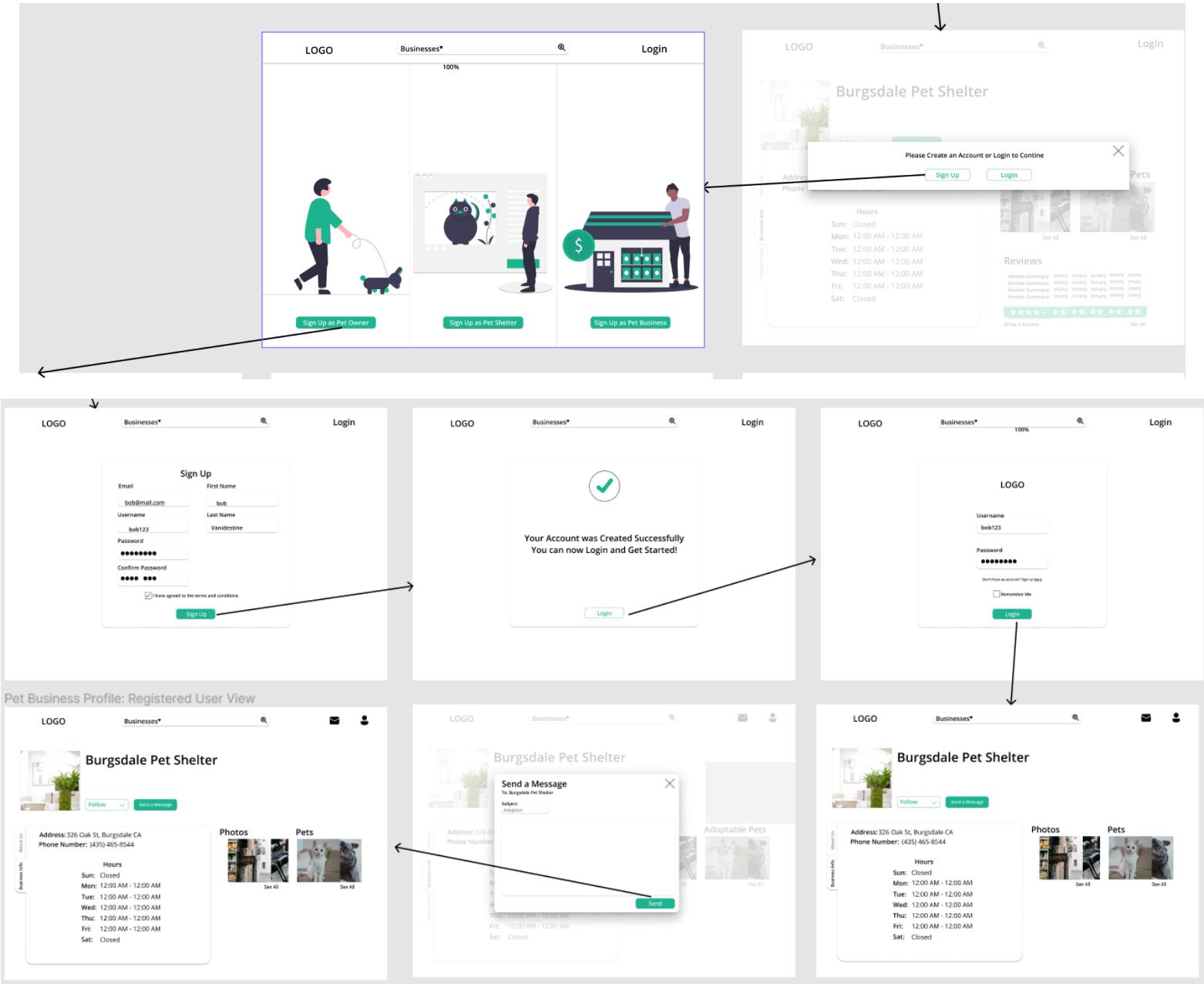
## Use Case 7



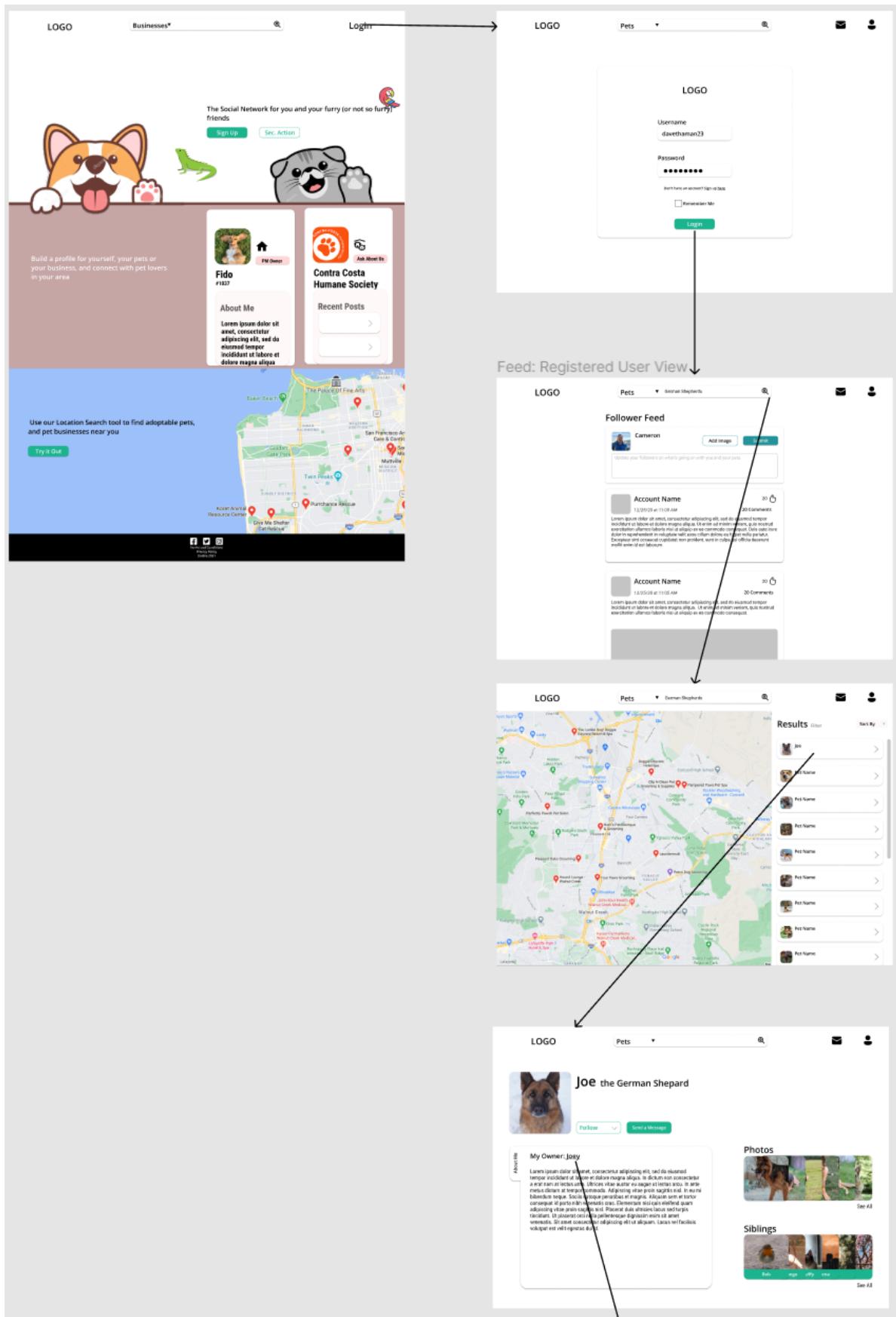
## Use Case 8 (1 of 2)



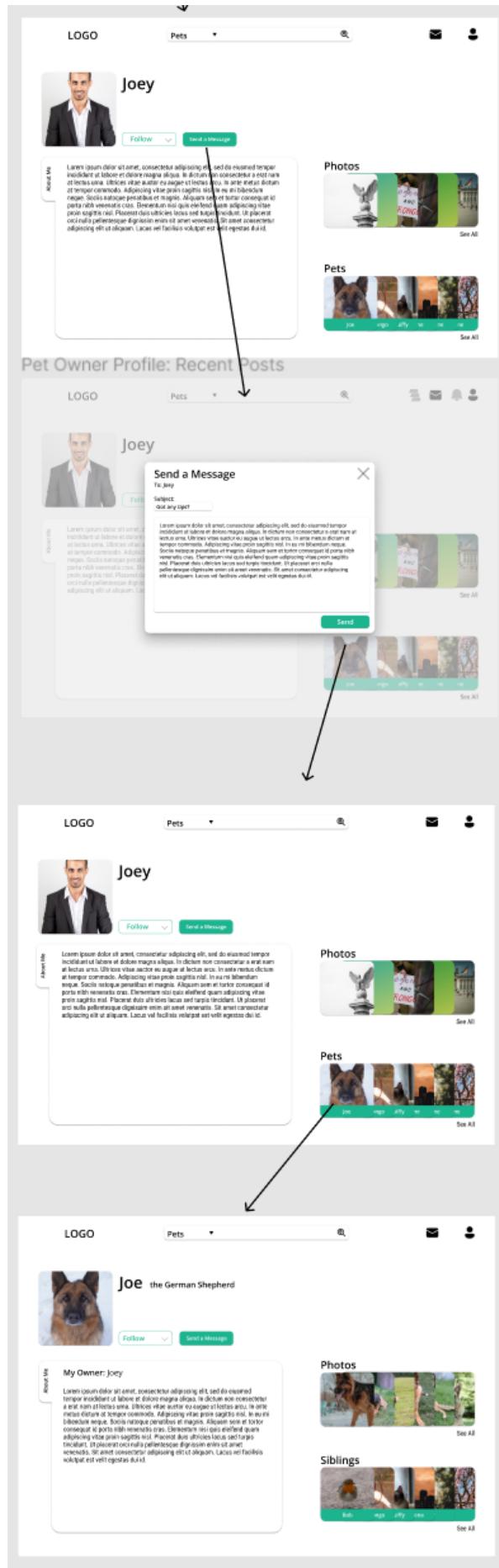
## Use Case 8 (2 of 2)



## Use Case 9 (1 of 2)



## Use Case 9 (2 of 2)



## Use Case 10 (1 of 3)

The diagram illustrates a user flow across four screens:

- Top Left Screen:** A landing page for the "Social Network for you and your furry (or not so furry) friends". It features a cartoon dog and cat at the top, a search bar, and a "Login" button. Below the header is a banner with a "Sign Up" and "Sec. Action" button. The main content area includes a profile card for "Fido" (#1037), a section titled "About Me" with placeholder text, and a map of San Francisco with several red location markers. A "Try It Out" button is located at the bottom left.
- Top Right Screen:** A login form with fields for "Username" (Fakeemail@email.com) and "Password" (redacted). It includes links for "Don't have an account? Sign up here!" and "Remember Me", and a "Login" button.
- Bottom Left Screen:** An "Admin Control Panel" for "Bad Boy Dog Pound". It shows flagged content for "Bad Boy Dog Pound" and "Account Name". Each item has a timestamp (12/25/20 at 11:05 AM), a comment count (20), and a "View" link. Below these are four "Navigate to Profile (Within a List Format)" buttons.
- Bottom Right Screen:** A detailed view of the "Bad Boy Dog Pound" business profile. It shows the address (326 Oak St, Burgsdale CA), phone number (435) 465-8544, and hours of operation (Sun: Closed, Mon-Fri: 12:00 AM - 12:00 AM, Sat: Closed). It also displays a "Ban User" and "Send a Message" button, a "Photos" section with a "See All" link, and a "Reviews" section with a 5-star rating and a "Write a Review" button.

## Use Case 10 (2 of 3)

**Reviews for Bad Boy Dog Pound**

- Bob: This place sucks (★★★★★)
- Rick: Lost my dog (★★★★★)
- Morty: Blah blah blah (★★★★★)
- Susan: NA (★★★★★)
- Frank: reviewing reviewing (★★★★★)

**Bad Boy Dog Pound**

[Ban User](#) [Send a Message](#)

**Address:** 326 Oak St, Burgsdale CA  
**Phone Number:** (435) 465-8544

**Hours**

**Sun:** Closed  
**Mon:** 12:00 AM - 12:00 AM  
**Tue:** 12:00 AM - 12:00 AM  
**Wed:** 12:00 AM - 12:00 AM  
**Thu:** 12:00 AM - 12:00 AM  
**Fri:** 12:00 AM - 12:00 AM  
**Sat:** Closed

**Photos**

[See All](#)

**Reviews**

Review Summary	1	2	3	4	5
Review Summary	mary	mary	mary	mary	mary
Review Summary	mary	mary	mary	mary	mary
Review Summary	mary	mary	mary	mary	mary
Review Summary	mary	mary	mary	mary	mary

[Write a Review](#) [See All](#)

## Use Case 10 (3 of 3)

Pet Owner Profile: Send a Message

**Pet Owner Name**

**Send a Message**

To: Bad Boy Dog Pound

Subject: Post Removal

Your post has been removed due to violation of policies, and may result in being banned if violations continue.

Send

About Me

Recent Posts

See All

LOGO

Pets

Unfo

Flagged Content

Account Name

12/25/20 at 11:05 AM

20 Comments

Booming Poodle Grooming

Navigate to Profile (Within a List Format)

Account

Profile

Pets

Logout

Accounts Awaiting Approval

Booming Poodle Grooming

Navigate to Profile (Within a List Format)

## **Section IV: High Level Database Architecture and Organization V2**

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### **Business Rules**

1. General User
  - a. A General User shall be able to be a Registered User
  - b. A General User shall have one unique user id
  - c. A General User shall have one first name
  - d. A General User shall have one last name
  - e. A General User shall have one email
2. Registered User
  - a. A Registered User shall have one unique registered user id
  - b. A Registered User shall have one address.
  - c. A Registered User shall have many pets
3. Address
  - a. An Address shall have a unique address id
  - b. An Address shall be associated with one user
  - c. An Address shall have one address line 1
  - d. An Address shall have one address line 2
  - e. An Address shall have one city
  - f. An Address shall have one state
  - g. An Address shall have one zipcode
  - h. An Address shall have one country
4. Business
  - a. A Business shall be owned by one Registered User
  - b. A Business shall have one unique business id
  - c. A Business shall have one name
5. Shelter
  - a. A Shelter shall be a Business
  - b. A Shelter shall have one unique Shelter id
6. Commerce
  - a. A Commerce shall be a Business
  - b. A Commerce shall have one unique commerce id
  - c. A Commerce shall have one Business Type
7. Business Type
  - a. A Business Type shall be associated with many Commercials
  - b. A Business Type shall have one unique business type id
  - c. A Business Type shall have one name
  - d. A Business Type shall have one description

8. Pet

- a. A Pet shall have one unique pet id
- b. A Pet shall have one name
- c. A Pet shall have one age
- d. A Pet shall have at least one color
- e. A Pet shall have one size
- f. A Pet shall have only one owner.

9. Dog

- a. A Dog is a Pet
- b. A Dog shall have one unique dog id.
- c. A Dog shall have at least one Dog Breed.

10. Cat

- a. A Cat is a Pet
- b. A Cat shall have one unique cat id
- c. A Cat shall have at least one Cat Breed

11. Other Pet

- a. An Other Pet is a Pet
- b. An Other Pet shall have one other pet id.
- c. An Other Pet shall have one type.

12. Age

- a. An Age shall have one unique age id
- b. An Age shall have one age name
- c. An Age shall have one age description
- d. An Age shall belong to many Pets

13. Size

- a. A Size shall have one unique size id
- b. A Size shall have one size name
- c. A Size shall have one size description
- d. A Size shall belong to many Pets

14. Color

- a. A Color shall have one unique color id.
- b. A Color shall have one color name
- c. A Color shall have one hex value.
- d. A Color shall belong many pets

15. Dog Breed

- a. Dog breed shall have one unique dog breed id.
- b. Dog breed shall have one dog breed forum link.
- c. Dog breed shall have one dog breed name
- d. A Dog breed shall belong to many Dogs

16. Cat breed

- a. A Cat Breed shall have one unique cat breed id.
- b. A Cat Breed shall have one cat breed forum link
- c. A Cat Breed shall have one unique cat breed name
- d. A Cat Breed shall belong to many Cats

17. Type

- a. A Type shall have one unique type id.
- b. A Type shall have one type name.
- c. A Type shall have one type forum link
- d. A Type shall belong to many Other Pets

### List of Main Entities, Attributes, and Keys

1. General User(Strong)

- a. user\_id: key, numeric
- b. email: alphanumeric
- c. first\_name: alphanumeric
- d. last\_name: alphanumeric
- e. full\_name: composite, alphanumeric

2. Registered User (Strong)

- a. reg\_user\_id: key, numeric
- b. address\_id: key, numeric
- c. user\_id: key, numeric

3. Business (Weak)

- a. reg\_business\_id: key, numeric
- b. reg\_user\_id: key, numeric
- c. name: alphanumeric

4. Shelter (Weak)

- a. shelter\_id: key, numeric
- b. business\_id: key, numeric

5. Commerce (Weak)

- a. commerce\_id: key, numeric
- b. business\_type\_id: key, numeric
- c. business\_id: key, numeric

6. Business Type(Strong)

- a. business\_type\_id: key, numeric
- b. business\_type\_name: alphanumeric
- c. business\_type\_desc: alphanumeric

7. Address (Weak)

- a. address\_id: key, numeric
- b. address\_1: alphanumeric

- c. address\_2: alphanumeric
  - d. zipcode: alphanumeric
  - e. city: alphanumeric
  - f. state: alphanumeric
  - g. country: alphanumeric
8. Pet (Weak)
- a. pet\_id: key, numeric
  - b. name: alphanumeric
  - c. age\_id: key, numeric
  - d. size\_id: key, numeric
  - e. reg\_user\_id: key, numeric
9. Size (Strong)
- a. Size\_id: key, numeric
  - b. Size\_name: alphanumeric
  - c. Size\_desc: alphanumeric
10. Age (Strong)
- a. age\_id: key, numeric
  - b. age\_name: alphanumeric
  - c. age\_desc: alphanumeric
11. Color (Strong)
- a. color\_id: key, numeric
  - b. color\_name: alphanumeric
  - c. hex\_value: alphanumeric
12. Dog (Weak)
- a. dog\_id: key, numeric
  - b. pet\_id: key, numeric
13. Dog Breeds (Weak)
- a. dog\_breeds\_id: key, numeric
  - b. dog\_id: key, numeric
  - c. dog\_breed\_id: key, numeric
14. Dog Breed (Strong)
- a. dog\_breed\_id: key, numeric
  - b. dog\_breed\_name: alphanumeric
  - c. dog\_breed\_forum\_link: alphanumeric
15. Cat (Weak)
- a. cat\_id: key, numeric
  - b. pet\_id: key, numeric
16. Cat Breeds(Weak)
- a. cat\_breeds\_id: key, numeric
  - b. cat\_breed\_id: key, numeric

c. cat\_id: key, numeric

17. Cat Breed (Strong)

a. cat\_breed\_id: key, numeric

b. cat\_breed\_name: alphanumeric

c. cat\_breed\_forum\_link: alphanumeric

18. Other Pet (Weak)

a. other\_pet\_id: key, numeric

b. type\_id: key, numeric

c. pet\_id: key, numeric

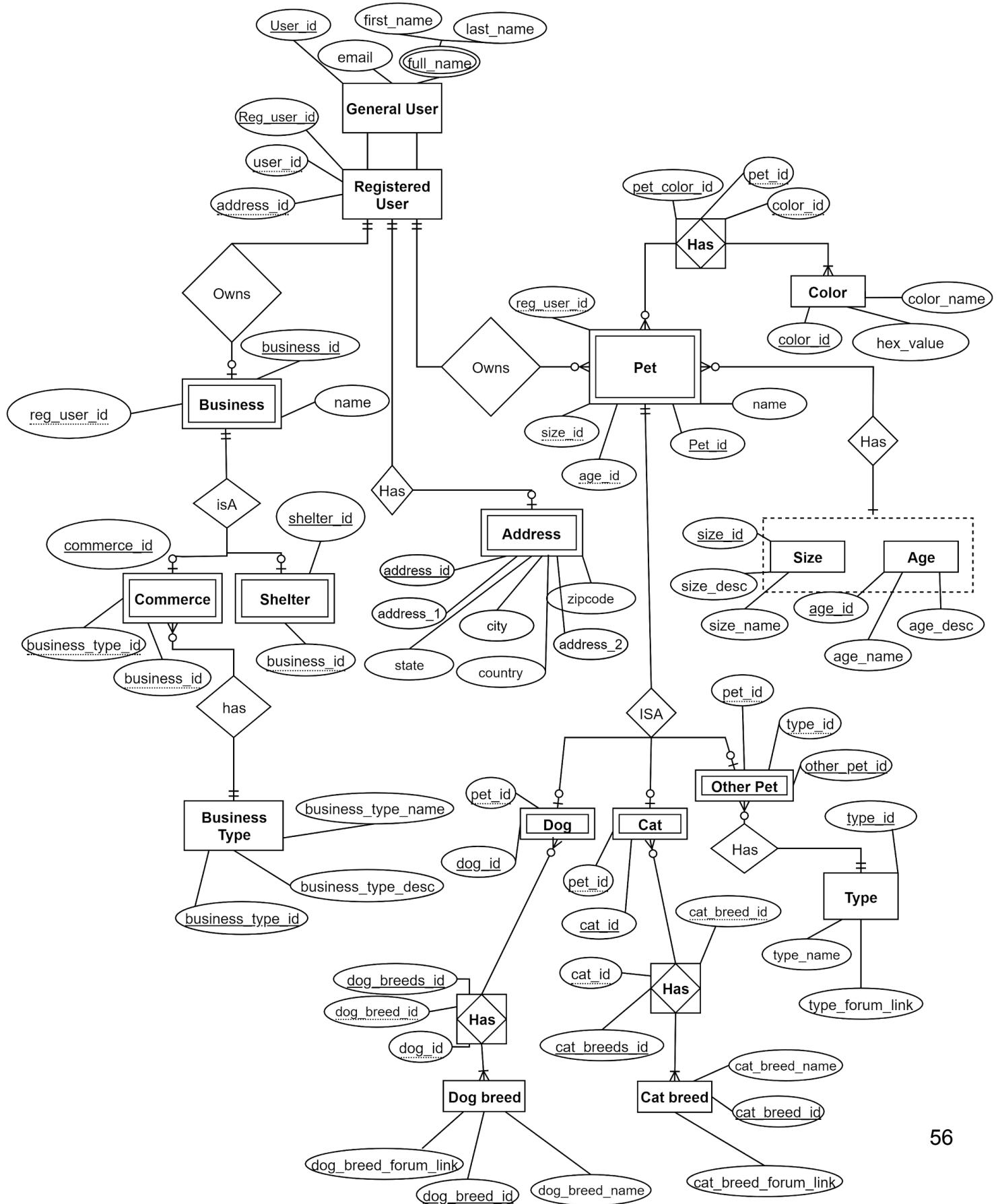
19. Type (Strong)

a. type\_id: key, numeric

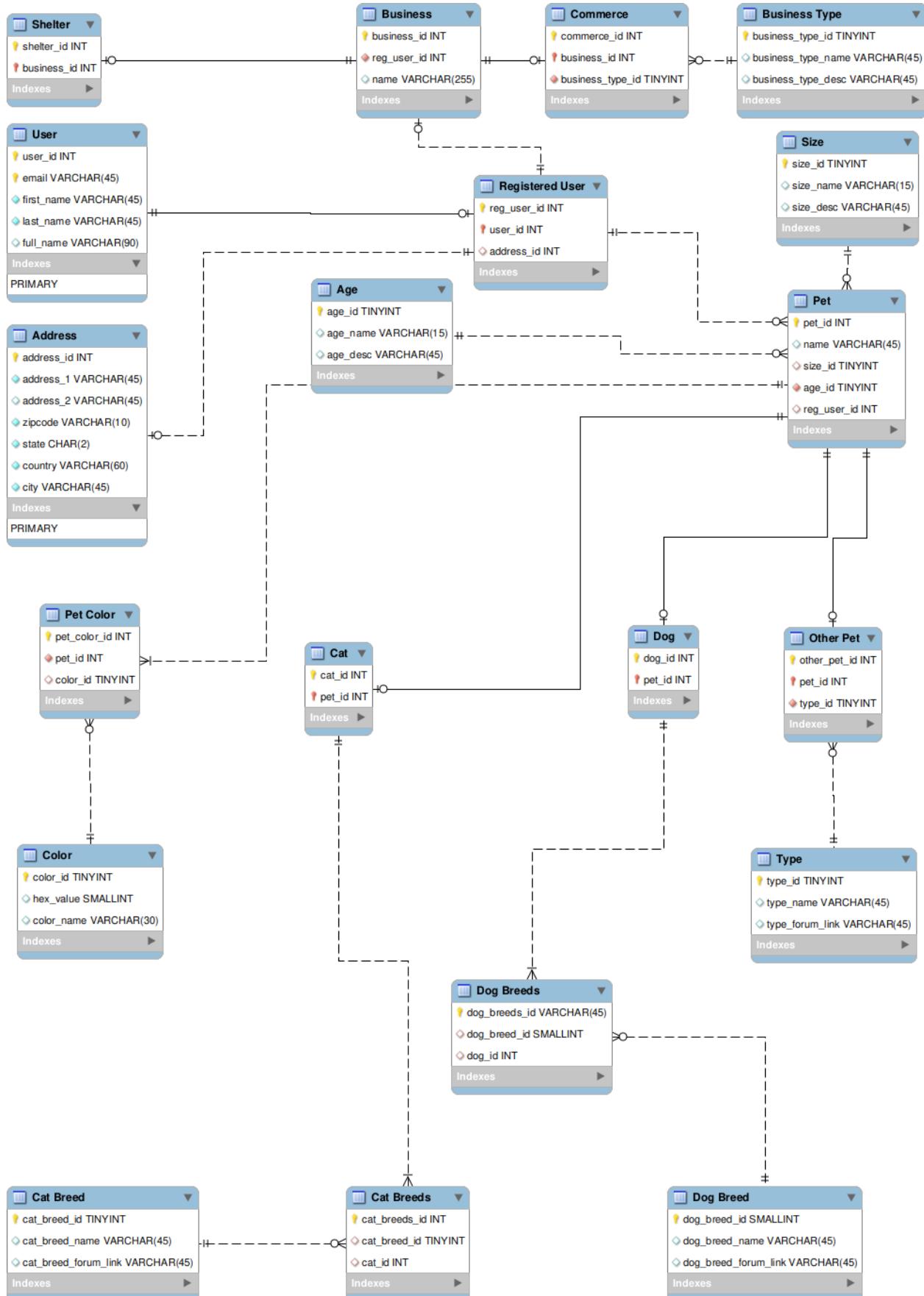
b. type\_name: alphanumeric

c. type\_forum\_link: alphanumeric

## ERD Diagram



## EER Diagram



**DBMS:**

We will use MySQLWorkbench as the DBMS, because it has been used by team members in the past, and supports the creation of database models.

**Media storage:**

All Media Files will be kept in a file system.

**Search/filter architecture and implementation:**

The user would be able to choose the type of entity they are trying to search Users, Businesses, Pets and Shelters then they would enter a search term or click a location from the suggestions provided by Google Places Autocomplete. The user is shown results that can be filtered and sorted based on the user choice.

If users are searched for, the map markers indicating location and all other map features will be unavailable for viewing. Pets not owned by businesses and shelters will share this behavior, but will also show up in the same results page with those Pets whose locations are kept.

In order to filter search terms and support autocomplete, we will use SQL's %like command.

By default, entities are sorted by proximity to the user's inputted address, or if a term was inputted, the number of characters matching between search query and result (relevancy)

**Search Terms:**

Users:

Name  
Username

Businesses:

Name  
Address  
Category

Pets:

Name  
Type

- Breed
- Color
- Size
- Age

Shelters:

- Name
- Address
- Available types of pets

**Filters:**

Businesses:

- Category

Pets:

- Breed
- Type
- Age
- Color
- Size

Shelters:

- Available types of pets

**Sorting:**

Businesses:

- Proximity
- Average Rating

Shelters:

- Proximity
- Average Rating

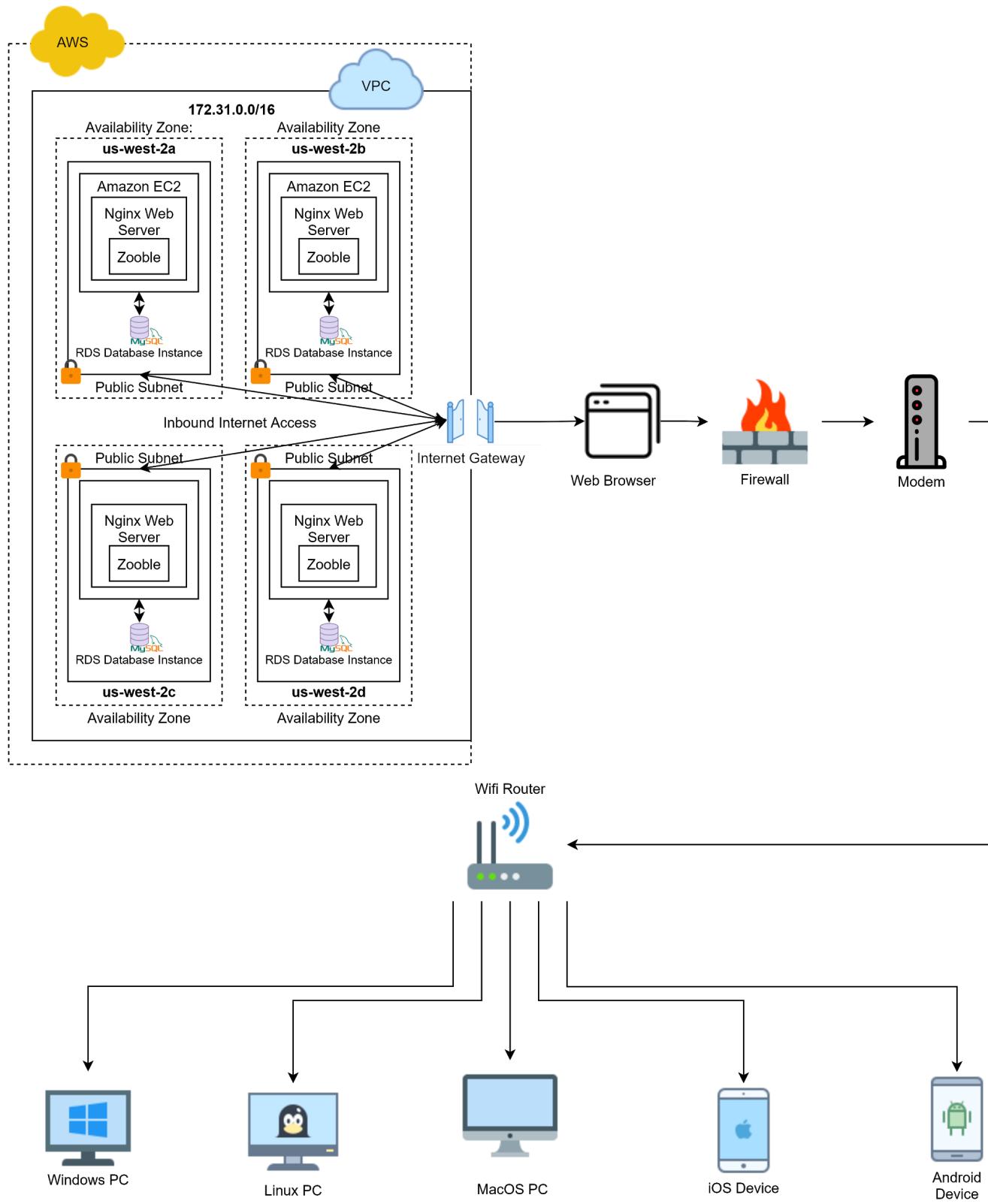
Pets: Age

- Pet Account Age
- Proximity

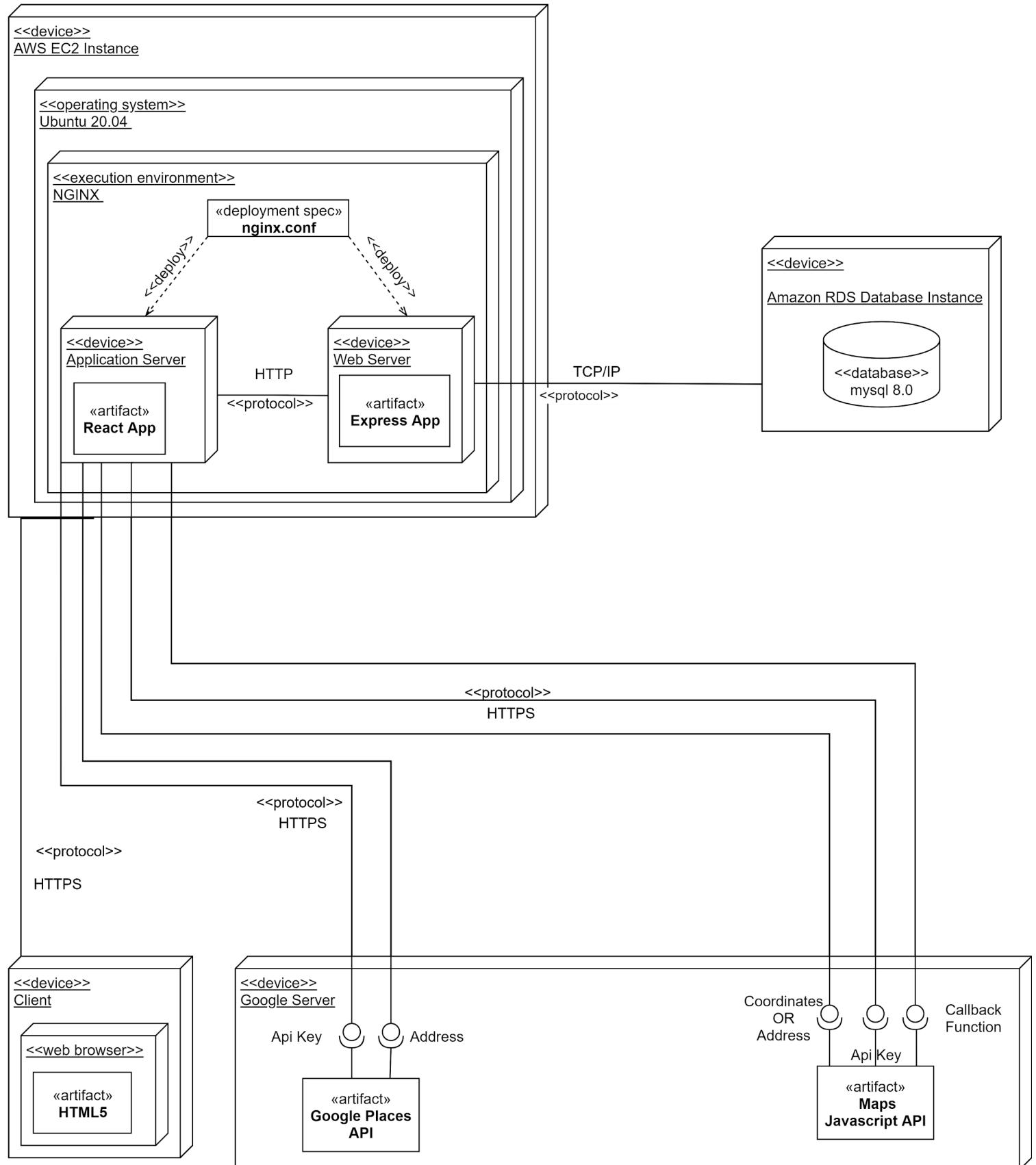
**Media Storage:** We will be using a file system-based storage system.

## Section V: High Level Diagrams V2

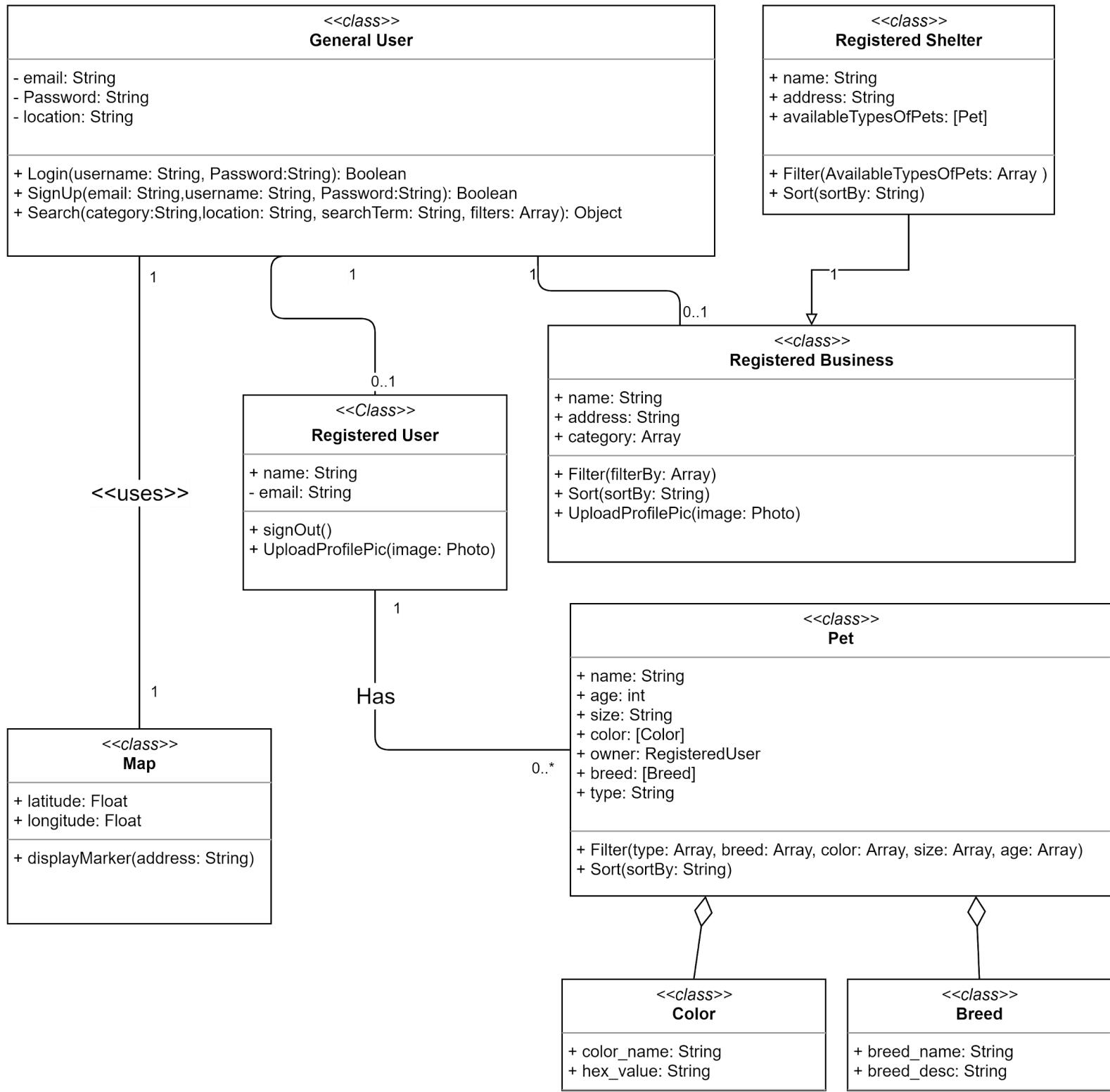
### Deployment Diagram:



## Deployment Diagram:



## UML Diagram:



## Section VI: Contribution Details

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Starting with the backend team, our backend team lead Em worked on coding the sign up page in the backend. Em also worked on coding and connecting the login page from our backend to the frontend. Wameedh was part of the backend and the frontend team. On the backend, Wameedh worked on the EER he focused on setting up the database model from our ERD and making sure the table relationships matched the foreign keys. Wameedh also worked on revising the Entity Descriptions/Business rules. Wameedh also worked on fixing bugs on the frontend and improving the css style of the site. Our team member Daniel was working on the frontend and backend. On the backend, Daniel worked on revising the Entity Descriptions/Business rules. Worked With Wameedh on improving the ERD by removing unnecessary entities that could potentially waste more space. Daniel was also the github admin where he was in charge of merging into master and pushing to AWS. For the frontend section of this milestone. The frontend lead, Cameron worked on Wireframes for use cases 5,6, and 10. Cameron also worked on the Login, AccountType, Signup, ShelterSignups, BusinessSignUps, and the Footer for the horizontal prototype. Cameron also debugged these components for the frontend. Cameron also updated Trello with the bugs that needed to be fixed before moving on to the next priorities. He created Trello cards for the frontend team to stay on track. He communicated with the backend team to make sure we were completing tasks to finish the horizontal prototype. Cameron also lead the frontend team every Friday by going over the documentation, prototype, and possible implementations. Cameron also made an edit to the document by adding the correct page number on each page of the documentation to match the page numbers in the table of contents. Wenjie is also another contributor to the frontend, he worked on wireframes 7 and 8. Wenjie worked on Profiles, Photos, and Reviews for the horizontal prototype. Wenjie also worked on debugging these components for the frontend. Wenjie also gave great ideas in the frontend meetings when discussing the documentation, prototype, and possible implementations. Sabrina was also a contributor to the frontend team. She worked on wireframes 3 and 4. She worked on the ProfileCard, ExploreUsers, and Followers for the horizontal prototype. Sabrina also debugged these components and kept track of each bug on Trello to keep a clear track of which bugs to fix. Sabrina also worked on the logo for the application and modified the documentation to give the pages the right page number to match the table of contents. Daniel also contributed to the frontend by working on wireframes 1,2, and 9. He worked on MyPets, Messages, Edit Modal, and Pets for the horizontal prototype. Daniel created the frontend and backend trello workspaces to keep both teams on track. Daniel also updated Trello by listing the bugs from the horizontal prototype. He worked with Wameedh to make sure all the pages were responsive. Daniel also made sure both teams were on track, providing answers to questions in the general team meetings. He

also participated greatly going over the documentation, prototype, and possible implementations.