Iteration Five

Paw Patrol

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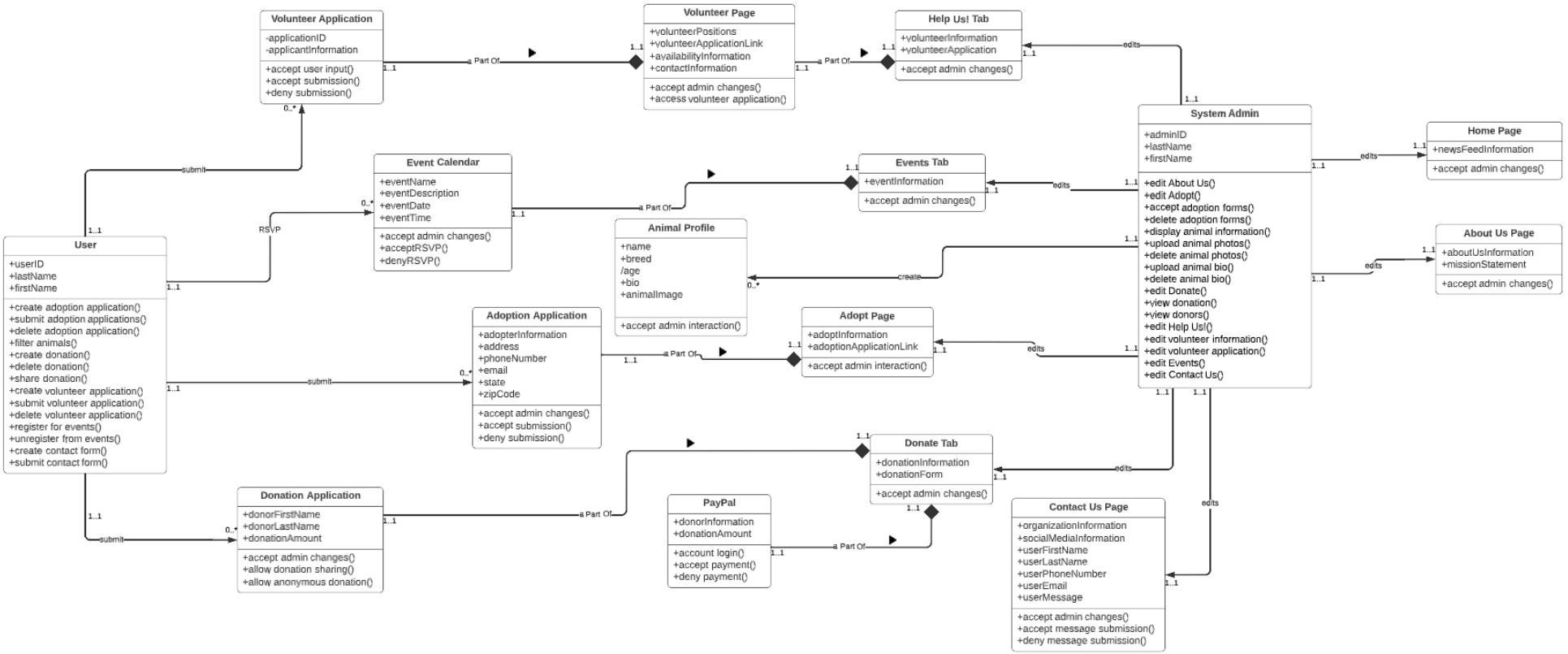
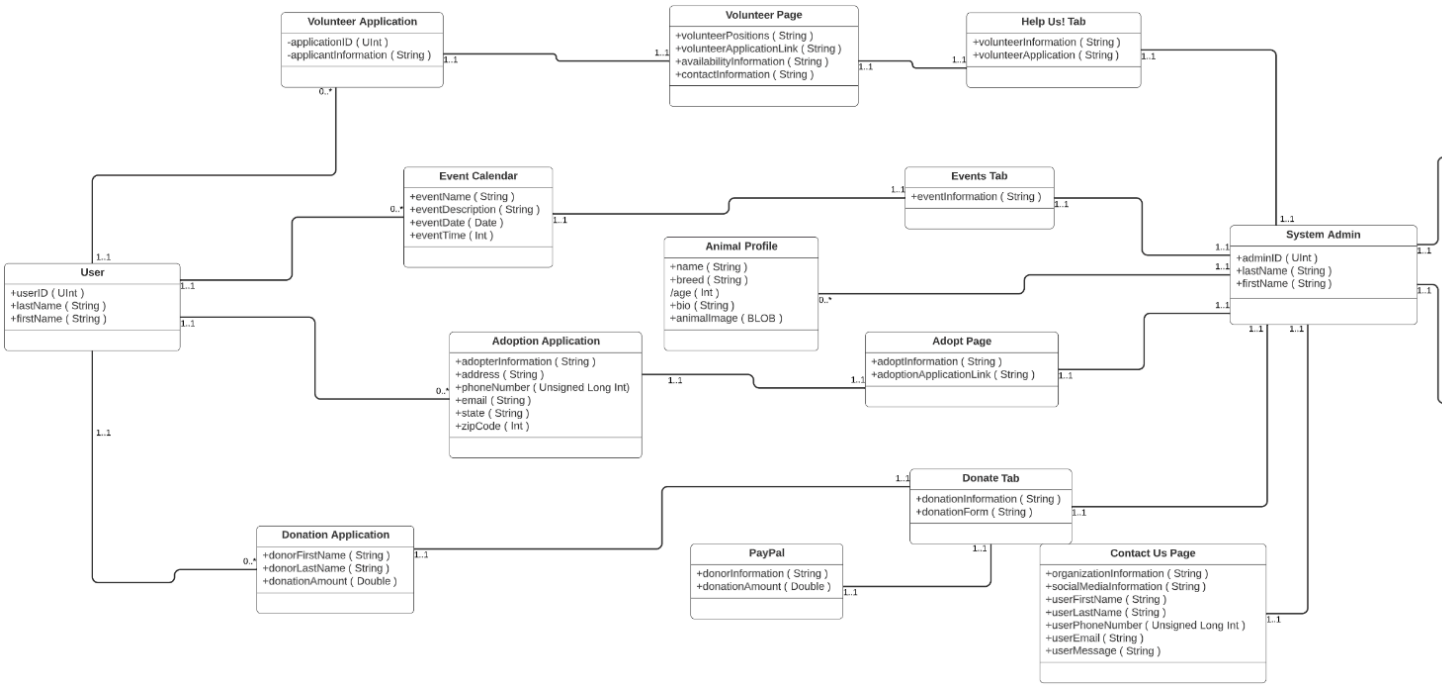
Class Diagram



Narrative: Classes were identified through a series of CRC cards. These cards stand for Class, Responsibility, Collaborator and are used to brainstorm series of classes/objects within a system. In this instance, we took the approach of both the system administrator and a user through roleplay. How does the user interact with a website. Some areas of the system are composed of other classes. When a user visits the Events tab, they will be greeted with a class Event Calendar which is part of the Events Tab. The same goes for the Help Us! Tab. Classes are composed within it and the user will interact with all.

Database Design:

Third Normal form is considered beneficial because it always ensures functional dependency preserving and lossless. The diagram below displays all the relationships and conditions between classes. Using Primary and Foreign keys, 3NF ensures that tables don't depend on nonprimary key fields.



Database Definitions:

User Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
UserID	Unique Identifier for user	**4 bytes**	UInt	**Primary**
LastName	User's last name	**Max 255 bytes**	String	N/A

FirstName	User's First Name	**Max 255 bytes**	String	N/A

Volunteer Application Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
ApplicationID	Unique Identifier for Applications	**4 bytes**	UInt	**Primary**
Applicant Information	Information regarding applicant	**Max 255 bytes**	String	N/A

Volunteer Page Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Volunteer Positions	Positions available for volunteers	**Max 255 bytes**	String	**Primary**
Volunteer Application Link	Link to Volunteer Application	**Max 255 bytes**	String	N/A
Availability Information	Availability Information on Volunteer Position	**Max 255 bytes**	String	N/A
Contact Information	Volunteer's Contact Information	**Max 255 bytes**	String	N/A

Help Us! Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?

Volunteer Information	Volunteer's Information	**Max 255 bytes**	String	**Primary**
Volunteer Application	Uses Volunteer Application information	**Max 255 bytes**	String	**Foreign**

Event Calendar Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
EventName	Name of Event	**Max 255 bytes**	String	**Primary**
Event Description	Description of the event	**Max 255 bytes**	String	N/A
EventDate	The Date of the Event	**4 bytes**	Date	N/A
EventTime	The Time of the Event	**4 bytes**	Int	N/A

Events Tab Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Event Information	Information about upcoming events	**Max 255 bytes**	String	**Primary**

Adoption Application Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Adopter Information	An Adopter's information	**Max 255 bytes**	String	**Primary**
Address	Adopter's Street Address	**Max 255 bytes**	String	N/A
Phone Number	Adopter's Phone Number	**8 bytes**	Unsigned Long Int	N/A
Email	Adopter's Email	**Max 255 bytes**	String	N/A
State	Adopter's State	**Max 255 bytes**	String	N/A
Zip code	Adopter's Zip code	**2 bytes**	Int	N/A

Adopt Page Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Adopt Information	Information about current adoptions	**Max 255 bytes**	String	**Primary**
Adoption Application Link	**Uses Adop**tion Application information and links to it	**Max 255 bytes**	String	**Foreign**

Donation Application Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Donor FirstName	**Donor's First Name**	**Max 255 bytes**	String	**Primary**
Donor LastName	**Donor's Last Name**	**Max 255 bytes**	String	N/A
Donation Amount	**Amount Donated by User**	**8 bytes**	Double	N/A

Donate Tab Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Donation Information	Information from the Donor and amount donated	**Max 255 bytes**	String	**Primary**
Donation Form	Donation Form using PayPal	**Max 255 bytes**	String	**Foreign**

Paypal Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Donor Information	Donor's information	**Max 255 bytes**	String	**Primary**
Donation Amount	The amount donated saved as a decimal (double)	**Max 255 bytes**	String	N/A

Contact Us Page Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Organization Information	General information and contact methods	**Max 255 bytes**	String	**Primary**
Social Media Information	Information and social media handles	**Max 255 bytes**	String	N/A
User FirstName	User's First Name	**Max 255 bytes**	String	N/A
User LastName	User's Last Name	**Max 255 bytes**	String	N/A
User Phone Number	User's Phone Number	**8 bytes**	Unsigned Long Int	N/A
User Email	User's Email	**Max 255 bytes**	String	N/A
User Message	User created message to administrator	**Max 255 bytes**	String	N/A

System Admin Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
AdminID	Unique Identifier for Administrator	**4 bytes**	UInt	**Primary**
LastName	System Admin Last Name	**Max 255 bytes**	String	N/A

FirstName	System Admin First Name	**Max 255 bytes**	String	N/A

Animal Profile Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
Name	Name of the associated animal	**Max 255 bytes**	String	**Primary**
Breed	The Breed of associated animal	**Max 255 bytes**	String	N/A
Age	Age of associated animal	**4 bytes**	Int	N/A
Biography	A brief Biography of animal	**Max 255 bytes**	String	N/A
Animal Image	An Image of the animal	**10 kilobytes**	Binary Large Object (BLOB)	N/A

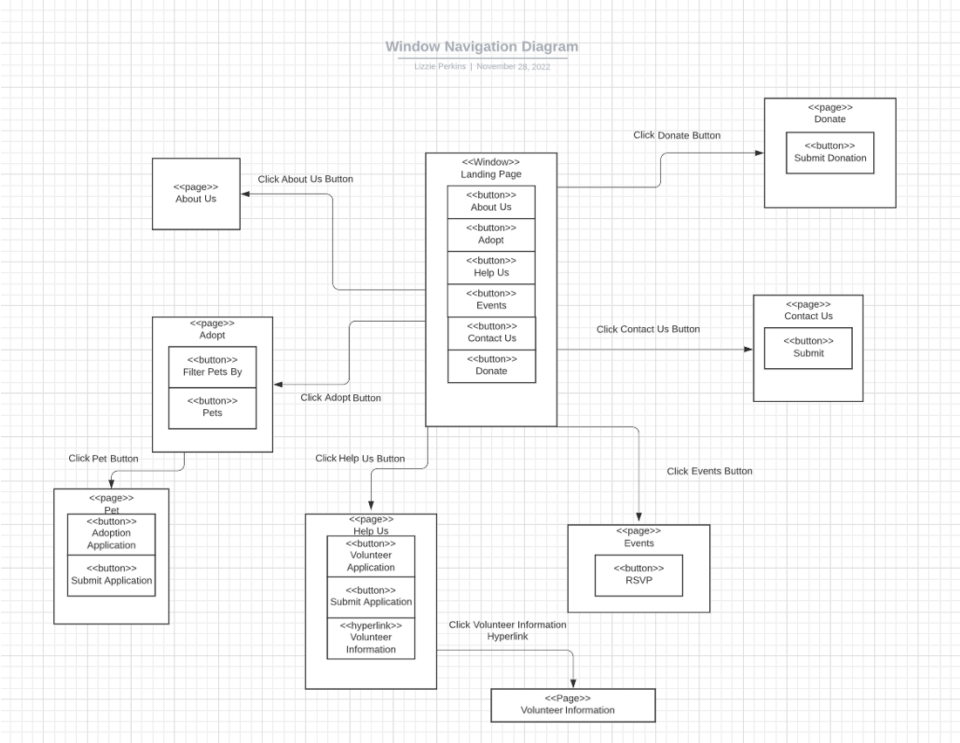
Home Page Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
News Feed Information	The information displayed on the news feed	**Max 255 bytes**	String	**Primary**

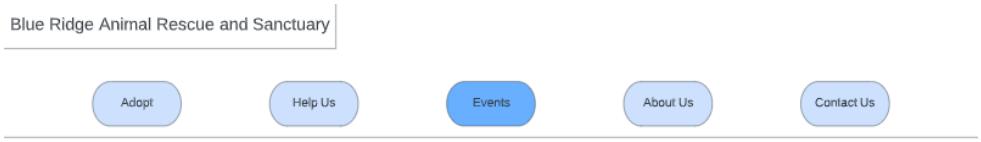
About Us Table

Attribute	Attribute Definition	Attribute Size	Attribute Type	Primary Or Foreign Key?
About Us Information	Information displayed in About Us	**Max 255 bytes**	String	**Primary**
Mission Statement	Mission statement that is displayed	**Max 255 bytes**	String	N/A

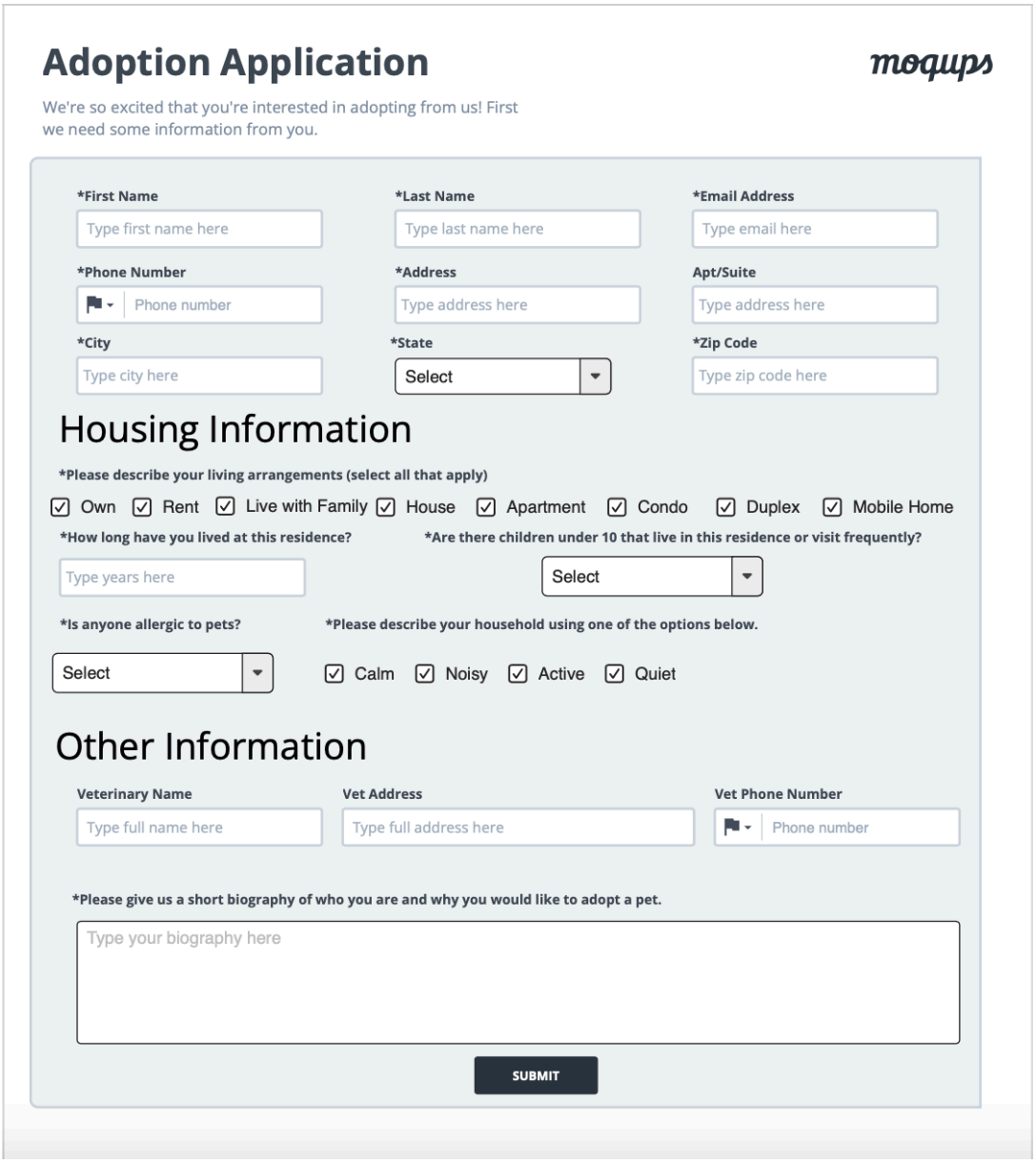
Navigation Diagram



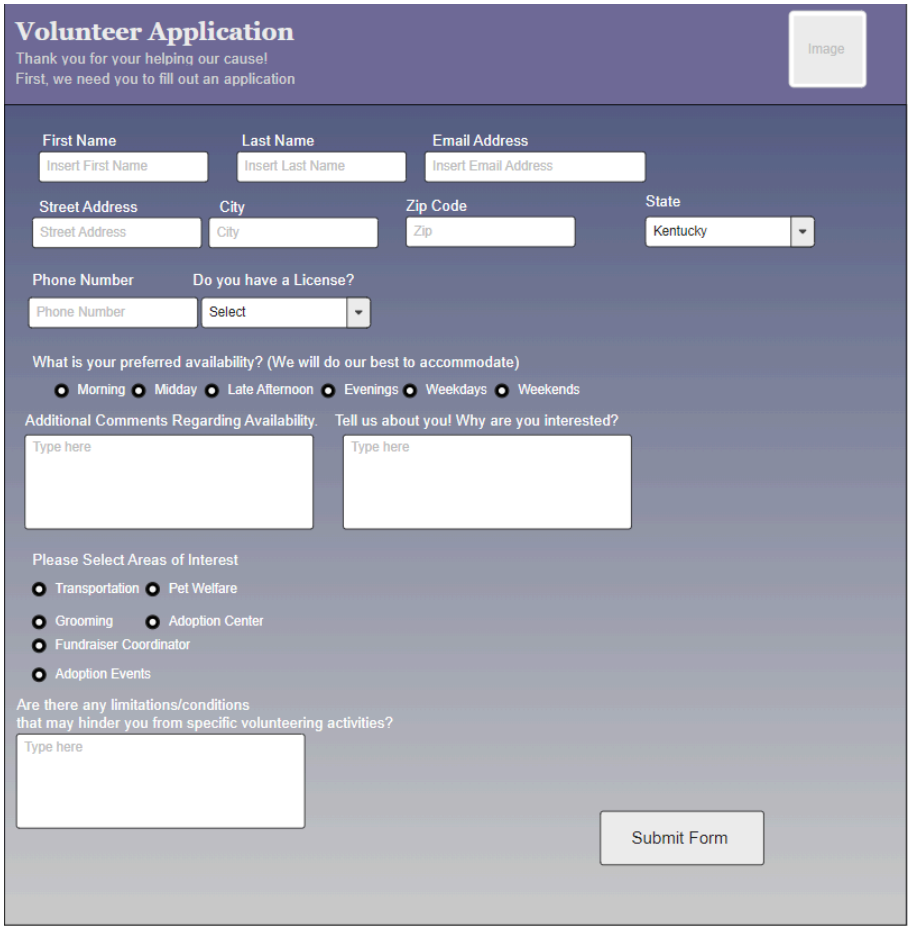
Screen Layouts:



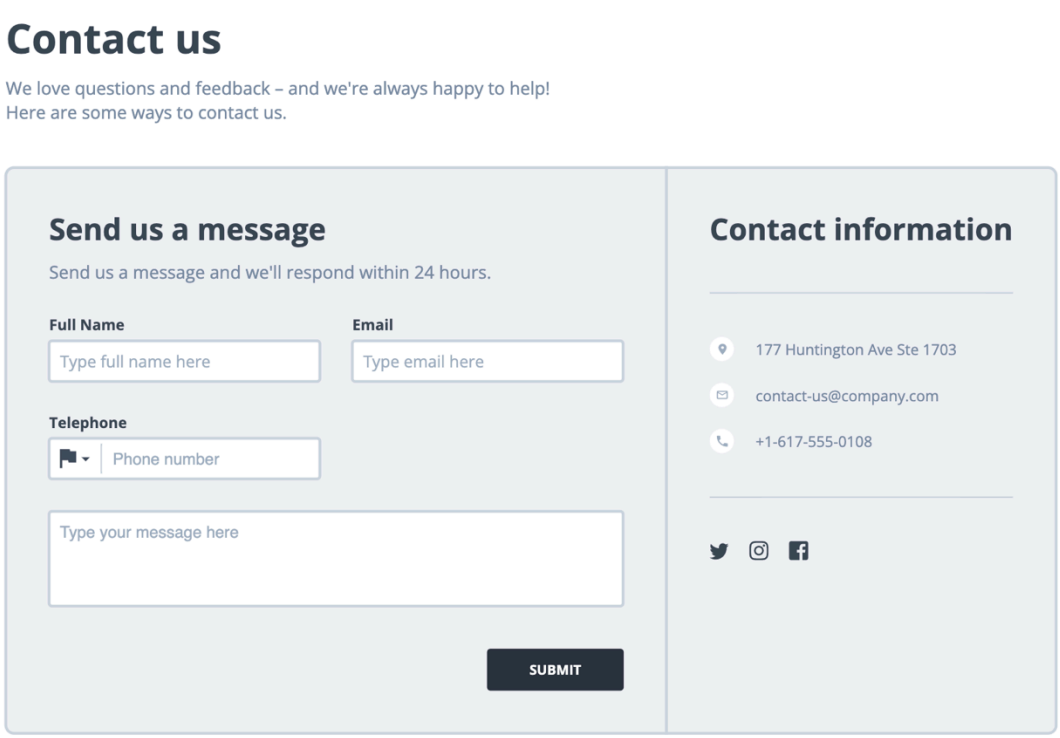
This would be the screen layout for a user entering information to RSVP for an event that would be on the calendar. This layout supports use cases 51-57. From here a user will be able to manage attendees, share events and access directions to the event.



This would be the screen layout for a user entering information for applying for adopting after navigating through the adopt tab. This layout supports use cases 14 and 15.



This would be the screen layout for a user entering information for a volunteer position after navigating through the help us tab. This layout supports use cases 34-36, 38-40, 45-47. Users will be able to manage their volunteer applications, manage information in the application, and manage interests within it.



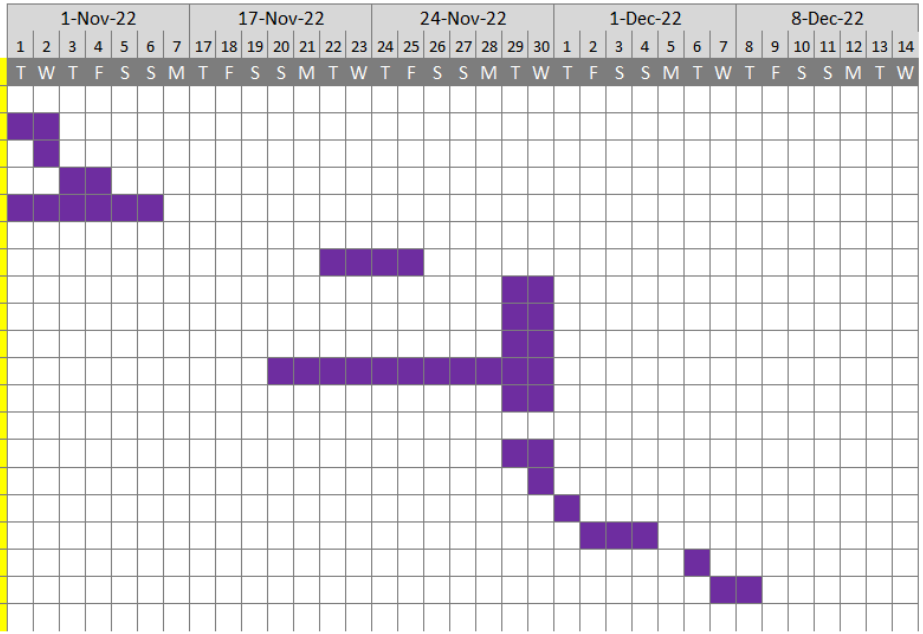
This would be the screen layout for someone entering information for the company to reach back out to them after navigating through the contact us tab. This layout supports use cases 64-67. These use cases consist of adding contact information, editing the information, deleting information, and changing methods of contact.

This would be the screen layout for a user trying to send a donation when navigating through the donate tab. This layout supports use cases 21-23 and 26-28. These use cases consists of managing donations from the front-end and back-end and giving users the options for anonymous donations, sharing donations and specifying donation amounts.

Gantt Chart:

Project Start: Tue,1-Nov-2022

Task	Task ID	Start Date	End Date	Responsbility
Iteration 3				
Use Cases	1	1-Nov-22	2-Nov-22	Everyone
Use Case Diagram	2	2-Nov-22	2-Nov-22	Everyone
Gantt Chart	3	3-Nov-22	4-Nov-22	Patrick
Use Case Prototype, Version 1	4	1-Nov-22	6-Nov-22	Everyone
Iteration 5				
Class Diagram	5	22-Nov-22	25-Nov-22	Patrick
Database design and Data definitions	6	29-Nov-22	30-Nov-22	Dylan
User interface navigation diagram	7	29-Nov-22	30-Nov-22	Adam & Lizzie & Madison
Screen layouts	8	29-Nov-22	30-Nov-22	Adam
Gantt Chart	9	17-Nov-22	29-Nov-22	Patrick
User interface Prototype	10	29-Nov-22	30-Nov-22	Lizzie & Abby
Elaboration Specification				
System Requirements	11	29-Nov-22	30-Nov-22	Patrick
Use Case Diagrams	12	30-Nov-22	30-Nov-22	Everyone
Trace Matrix	13	1-Dec-22	1-Dec-22	Lizzie
Use Cases	14	2-Dec-22	4-Dec-22	Everyone
Sequence Diagrams	15	6-Dec-22	6-Dec-22	Everyone
Class Diagram	16	7-Dec-22	8-Dec-22	Everyone



Task Dependencies:

Iteration 3	Task ID	Task	Start Dat	End Date	Task Responsibi	Task Dependencies
	10	Use Cases	11/1/22	11/2/22	Madison & Patrick	The Use Cases in this iteration are dependent on the system requirements identified in I2. These are needed to form essential and detailed use cases.
	11	Trace Matrix	11/2/22	11/2/22	Madison	The Trace Matrix is dependent on the list of use cases in this iteration.
	12	Use Case Diagram	11/3/22	11/4/22	Lizzie & Dylan	The use case diagram is dependent on the use cases stated in this iteration. Without them, the diagram cannot be created.
	13	Gannt Chart	11/1/22	11/6/22	Patrick	The Gantt Chart relies on the completion of tasks and their duration. Completion dates factor into this as well as future iterations/tasks.
	14	Use Case Prototype, Version 1	11/5/22	11/6/22	Adam & Abby	The Use Case Prototype is a high-level prototype used to represent data needs and process flows. High risk use cases are required for this task as well as previous prototypes.

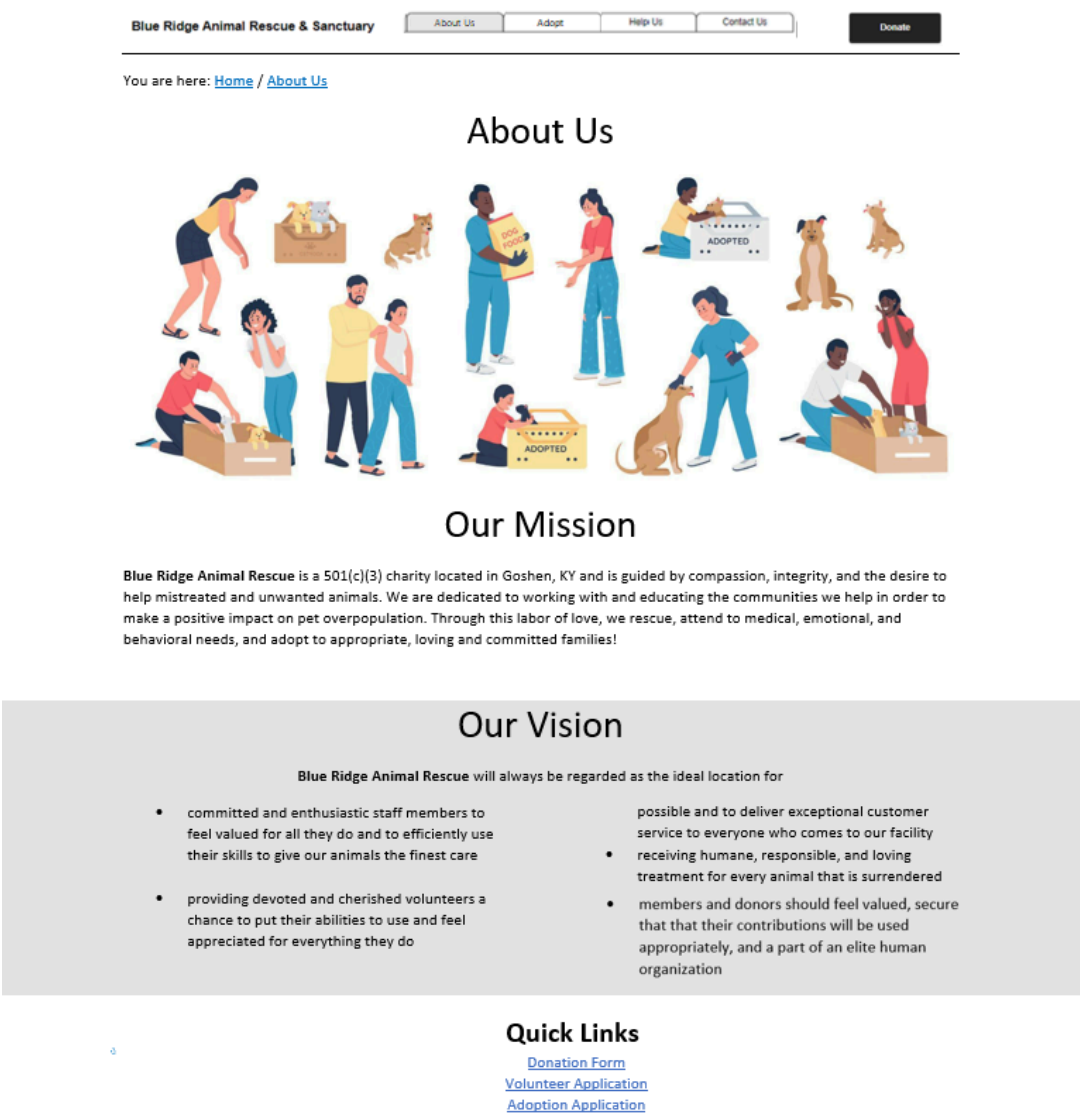
Iteration 5	Task ID	Task	Start Dat	End Date	Task Responsibil	Task Dependencies
	5	Class Diagram	22-Nov-22	25-Nov-22	Patrick	The class diagram is dependent on the group's assignment 3 class diagrams. Once provided, the group can discuss any changes needed to be made to create the diagram.
	6	Database design and Data definitions	29-Nov-22	30-Nov-22	Dylan	Database diagrams and data definitions are dependent on completion of the class diagram. It seems to transform the class diagram to an ERD and display data types associated with the attributes.
	7	User interface navigation diagram	29-Nov-22	30-Nov-22	am & Lizzie & Madi	The User interface and navigation diagrams depict views of the use cases. Completion of use cases and use case diagrams are needed in order to finish this step
	8	Screen layouts	29-Nov-22	30-Nov-22	Adam	Screen layouts provide input screens/forms along with output screens/reports. These are borrowed from HTML prototypes and it is crucial that those prototypes are completed for this step.
	9	Gantt Chart	17-Nov-22	29-Nov-22	Patrick	The Gantt Chart is not directly dependent on tasks, but each task needs to be completed in order to complete this step.
	10	User interface Prototype	29-Nov-22	30-Nov-22	Lizzie & Abby	User interface prototypes are mockups representing the data needs and process flow of use cases. Use cases need to be completed for this step.
Elaboration Spec						
	11	System Requirements	29-Nov-22	30-Nov-22	Patrick	System Requirements are dependent on product features/requirements in the Vision Document. This task is dependent on previous iterations
	12	Use Case Diagrams	30-Nov-22	30-Nov-22	Everyone	Use Case diagrams display business processes within the system. Use cases need to written out in order to complete this step.
	13	Trace Matrix	1-Dec-22	1-Dec-22	Lizzie	The trace matrix is dependent on the use cases and system requirements

	13	Trace Matrix	1-Dec-22	1-Dec-22	Lizzie	The trace matrix is dependent on the use cases and system requirements
	14	Use Cases	2-Dec-22	4-Dec-22	Everyone	Use cases capture business processes within the system and are essentially actions of the system. System requirements need to be finished for this step.
	15	Sequence Diagrams	6-Dec-22	6-Dec-22	Everyone	Sequence diagrams are a diagram depicting a flow of actions to achieve a goal. For this step to be completed, use cases, use case diagrams, and the class diagram will need to be completed
	16	Class Diagram	7-Dec-22	8-Dec-22	Everyone	The class diagram is dependent on the individual assignments for class. It represents a set of classes, objects, and methods within the system.

User Interface Prototype:

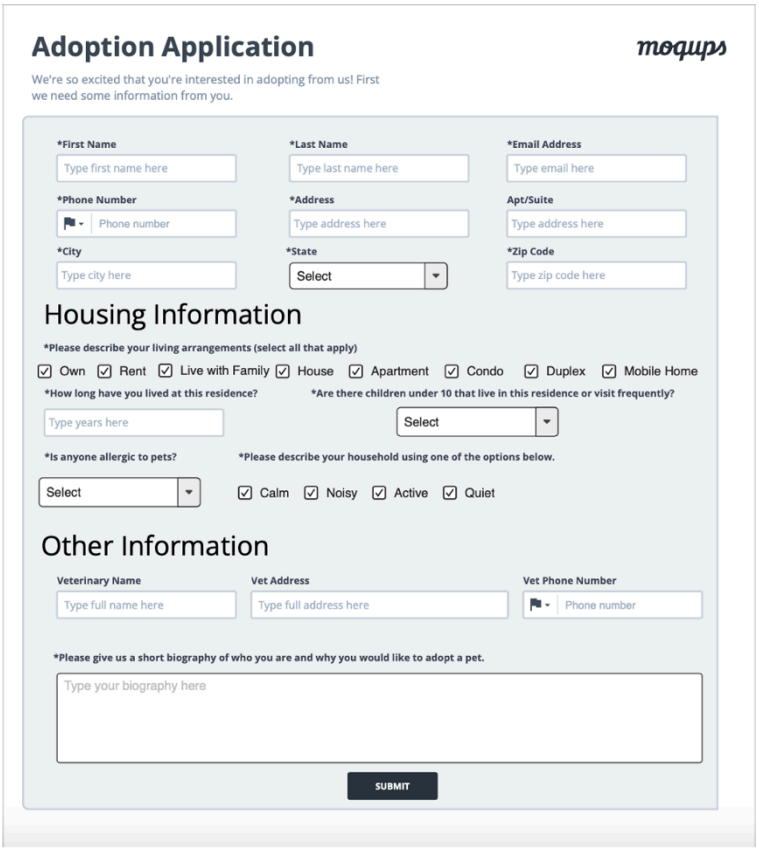
Use Case 1 – 10: About Us Prototype

The following image represents the About Us tab. From this page, users can view all the information about the organization on this page and have access/click to the links in Quick Links section to jump to the items of the organization want to focus on which are donation, volunteer, and adoption form. From the backend, the client can add, edit, create, design, and delete all the information on this tab and create, add, and delete navigate links in the Quick Links section.



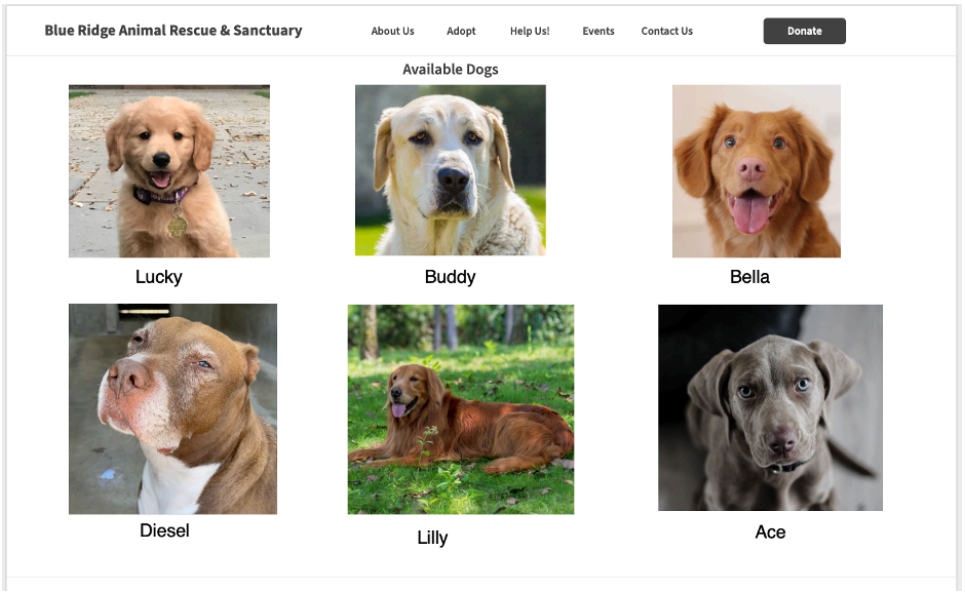
Use Case 14 & Use Case 15: Adoption Application

This is a prototype of the adoption application. A user will be able to access this through Blue Ridge's webpage and will be able to create and apply. They will be required to input information for the organization, and, and the discretion of the organization, they can delete it.



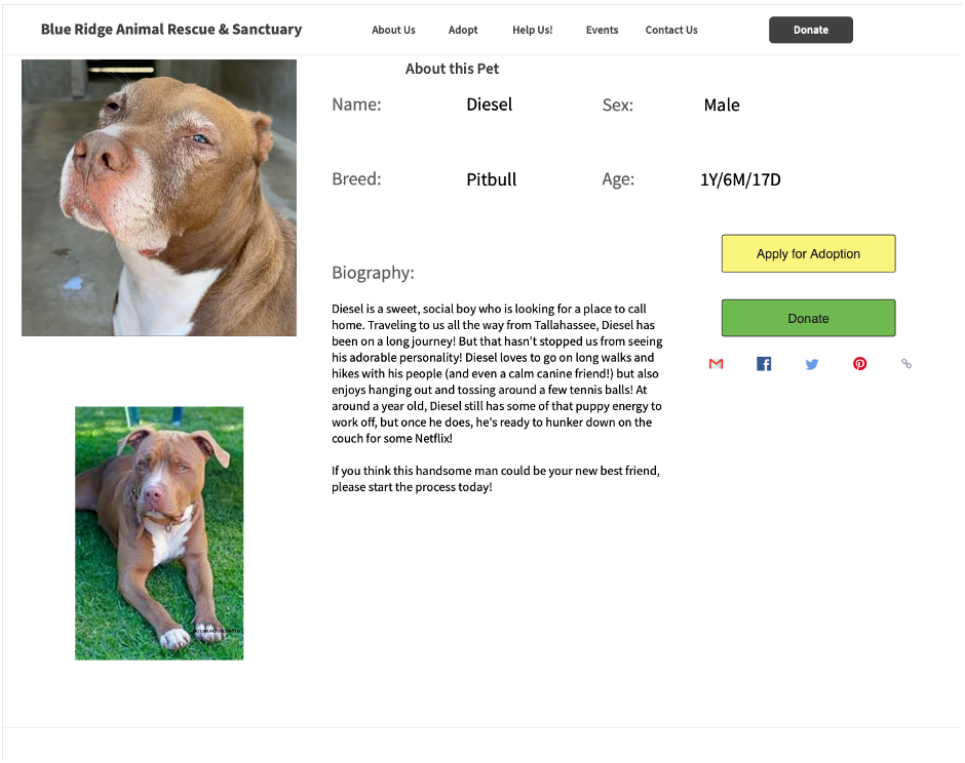
Use Case 11-13 & Use Case 16-17

The Prototype shown below involve adding pets, editing pets, and deleting pets. These are from the administrative side, and the admin can do so as pleased. This is the user view and what we expect the user will see when viewing Blue Ridge's webpage. This will more than likely involve the adopt tab.



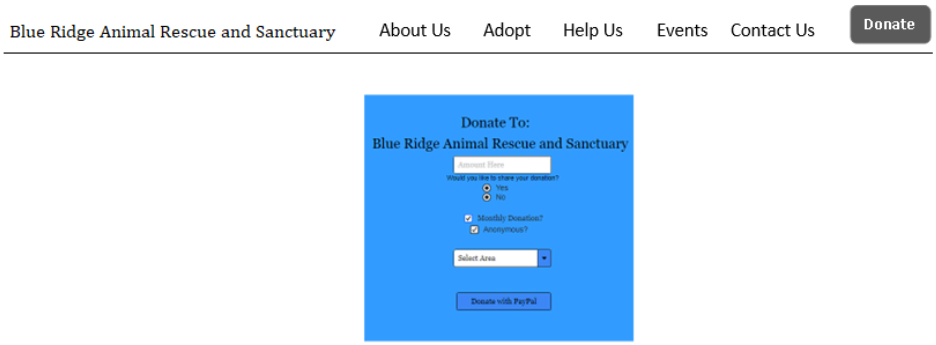
Use Case 18-20: Animal Biography

The use cases involved in this prototype display the user view of pet information. When the user visits the web page, we expect that they will view animal information as they look to adopt. Information here is added through the admin and can be changed as needed.



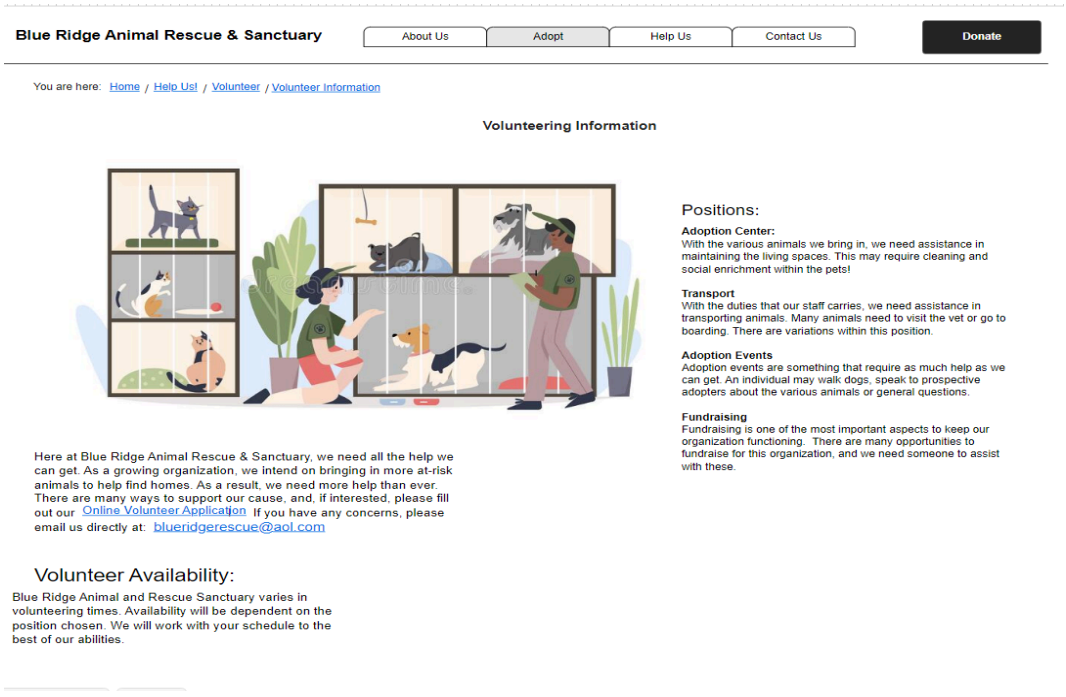
Use Case 21-29: Donation Form

The prototype below shows the user view of the donation form. Users can create and submit donations to the organization, and, if needed, they can remain anonymous. The organization will be able to view these donations on their end and manage them as necessary.



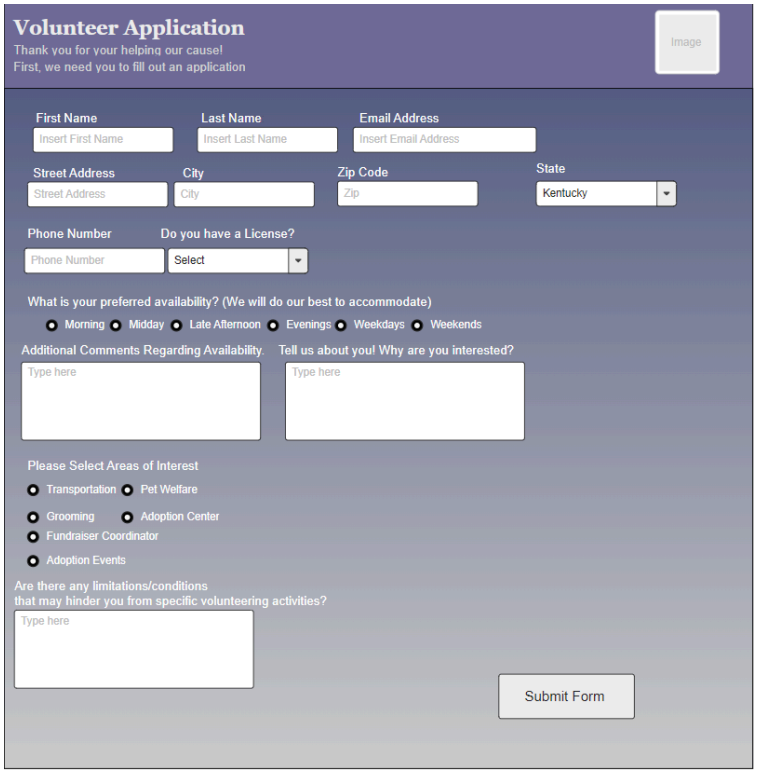
Use Case 32, 33, 37, & 41-43: Volunteer Information

The first prototype displayed involves use cases 32, 33, 37, and 41-43. It displays the user view of the website, and the information that the client may provide within the Help Us! Page. From here, the user will be able to see information regarding volunteering within the organization, positions and potential availability for volunteering. From the administrative point of view, the client will be able to alter information on this portion of the website. Once altered, changes will be made to the user's end.



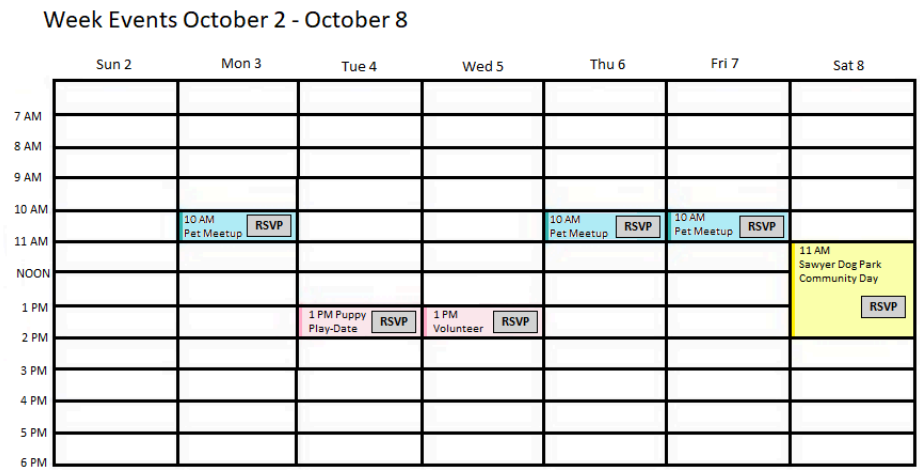
Use Cases 34-35, 36, 38, 40, 41-43, 44, & 45-47: Volunteer Application

This prototype displays the user view of the volunteer application. Accessing this will be through the first prototype displayed or through Help Us! Tab. Once the user accesses this tab, they will be able to fill out the form and submit when finished. This prototype involves use cases 34-35, 36, 38, 40, 41-43, 44, and 45-47. From the backend, the client should be able to receive these submitted applications and view/delete them as necessary.



Use Case 48-50: Events

The following image represents the Event tab prototype. This prototype includes a 7-day calendar with time slots on each day to allow the system administrator to add, edit, and delete events as needed. It also allows users to access important event information and RSVP if necessary.



Use Case 58-67

The prototype below shows a mockup of the contact form on the user end. On the back end, the admin will be able to manage their contact information displayed and managed frequently asked questions. Users can manage their information as necessary and change their contact preferences if needed.

Contact us

We love questions and feedback – and we're always happy to help!
Here are some ways to contact us.