

Guys, Lucid Chart is free for students if you make a free account (NOT trial), and contact support to get your account upgraded. I think we can share charts with each other too.

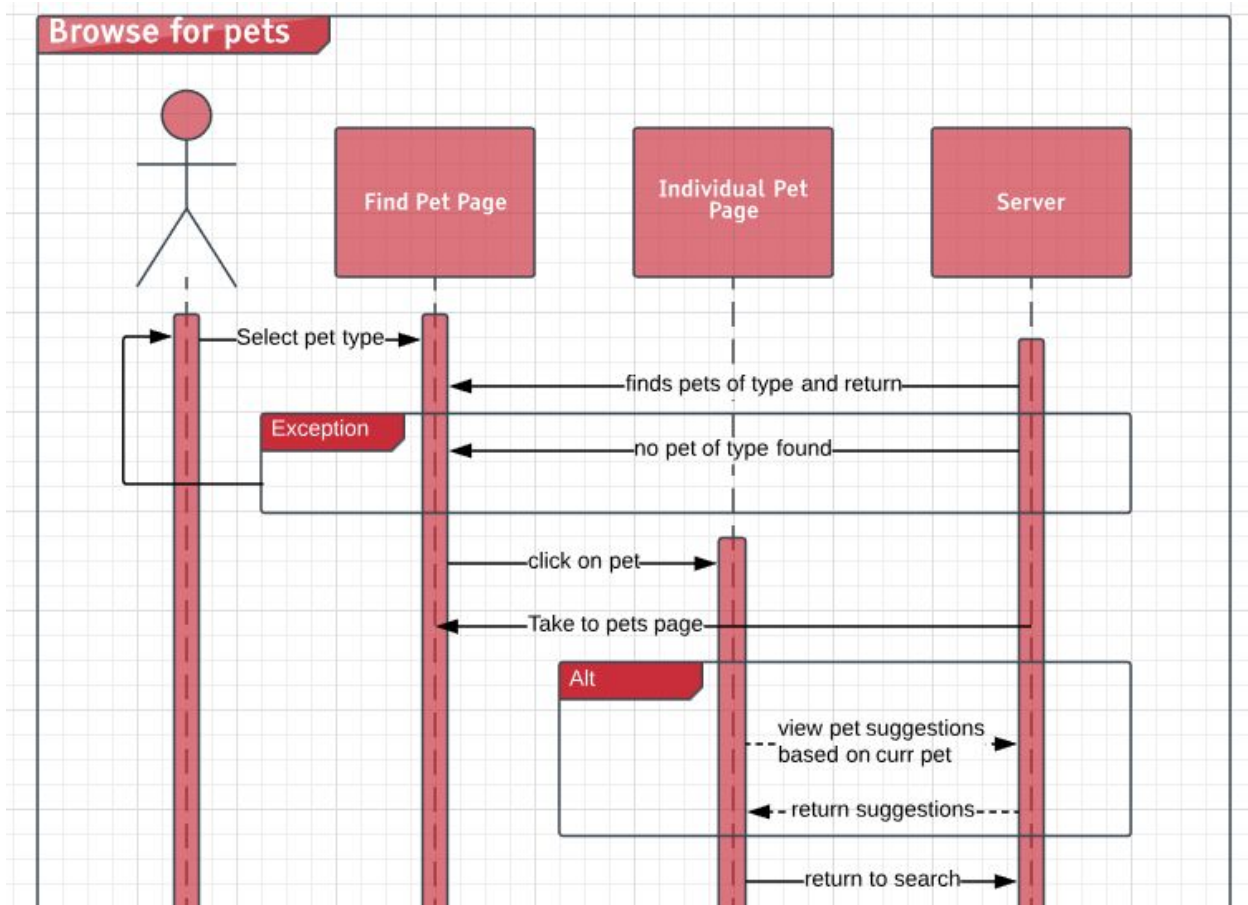
<https://www.lucidchart.com/pages/usecase/education>

They have a “web sequence diagram” template. - Lifan

Use Case Template:

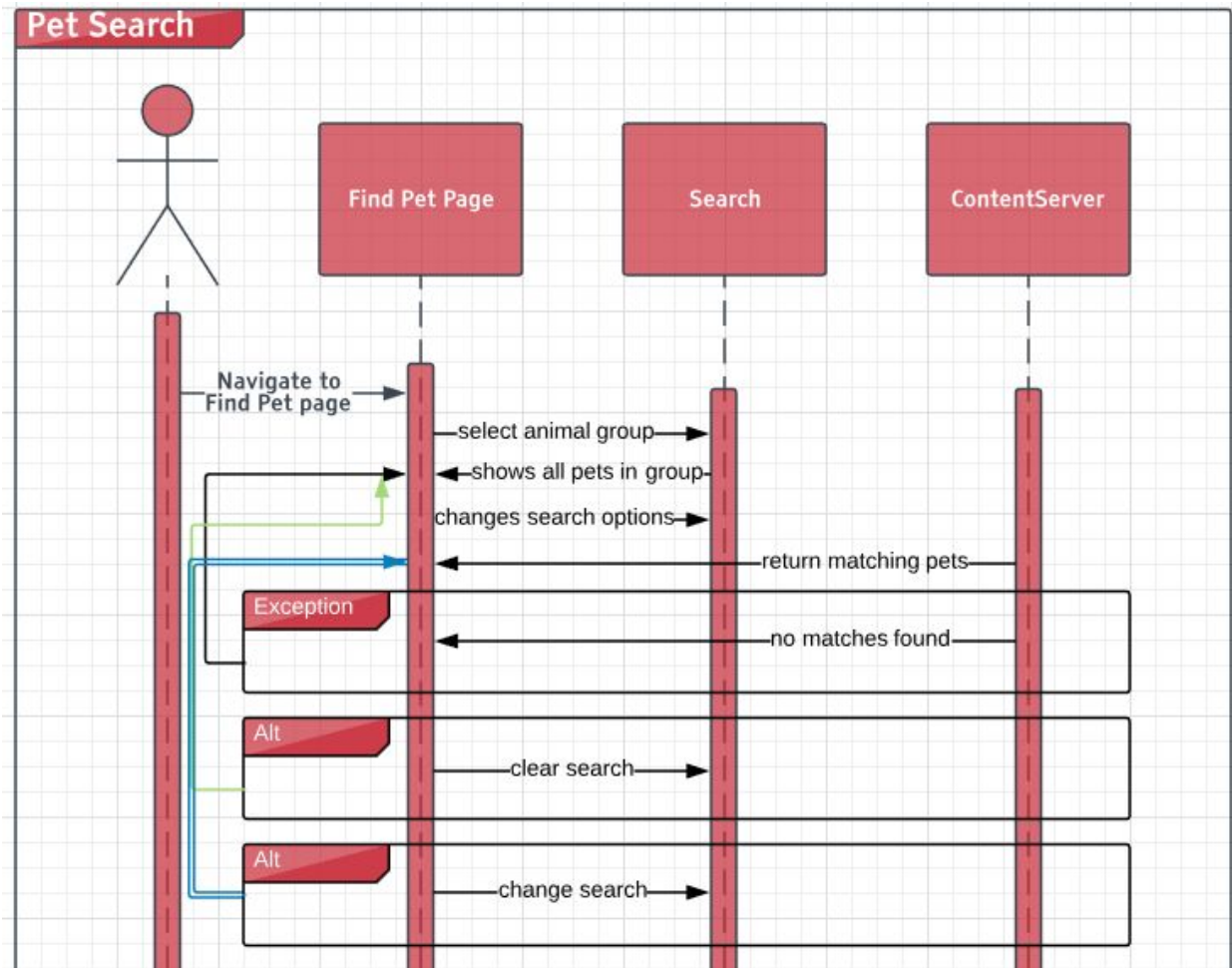
Name	
ID	
Description	
Actors	
Organizational Benefits	
Frequency of Use	
Triggers	
Preconditions	
Postconditions	
Main Course	
Alternate Courses	
Exceptions	

Name	Casually browse site for pet.
ID	browse_001
Description	A visitor clicks through the site casually looking at the pets without any specifications that they would like to search for specifically.
Actors	Site visitor
Organizational Benefits	Helps more pets to be seen by potential adopters.
Frequency of Use	A large portion of customers do not have a specific idea of what kind of pet they would like other than the type of animal. Those customers would just browse around and look at all the animals the happen across in their browsing process.
Triggers	User clicks on any page in the website where pets are visible.
Preconditions	User is on the site and has not found a pet they are interested in.
Postconditions	The user navigates away from the site, or the user has located a pet they would like to adopt.
Main Course	<ol style="list-style-type: none"> 1. User navigates to the view pet page. 2. User selects an animal group (dogs, cats, hamsters, etc) to view. 3. System finds all adoptable animals of selected group and shows them to the user on a new page. 4. User scrolls through available pets until they exit or click on a pet to view.
Alternate Courses	AC1 User finds pets through another pet's page <ol style="list-style-type: none"> 1. User is already on another pets page and scrolls through the "similar pets" and/or the "other pets at this shelter" sections.
Exceptions	EX1 There are no pets of the chosen animal group available <ol style="list-style-type: none"> 1. System notifies user there are currently no available animals and redirects them to the select animal group page.



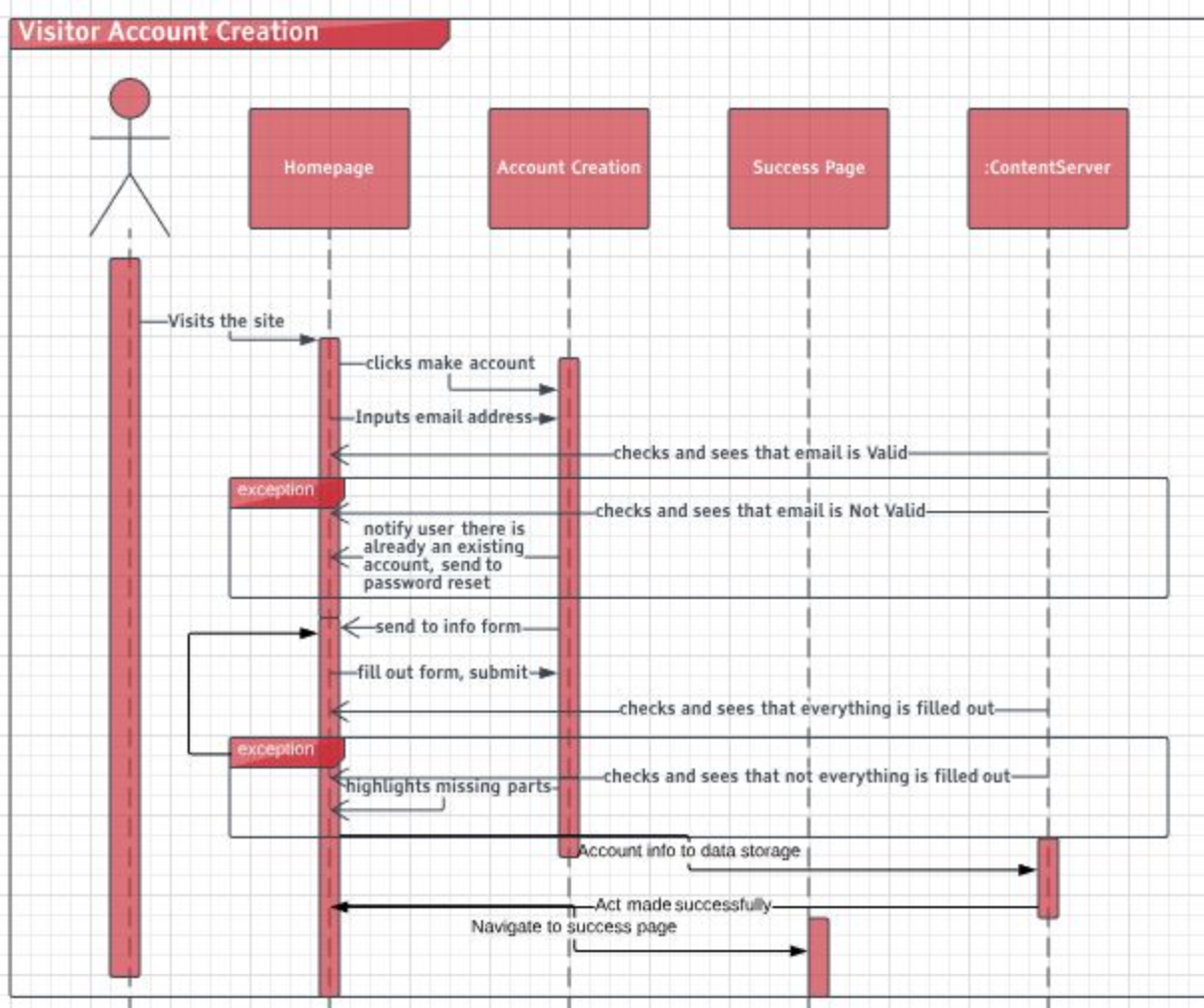
Name	Search site for pet.
ID	search_001
Description	A visitor uses the site's search function to narrow down the amount/categories of pets they view.
Actors	Site visitor
Organizational Benefits	More conveniently matches pets with potential owners.
Frequency of Use	Most users would want to narrow down the search process to make pet search easier.
Triggers	User navigates to the find pet page.
Preconditions	User is shown all of the available pets of a certain animal group.

Postconditions	User is shown only the selection of pets that meet the customer's needs.
Main Course	<ol style="list-style-type: none"> 1. User is met with a list of available animal groups (dogs, cats, hamsters, etc). 2. User selects desired animal group. 3. User selects items from the search bar above (drop down menus for factors such as distance, age, sex) 4. System determines which pets meet all of the requirements that have been selected and shows the user a page with those pets. 5. System saves temporarily the selected requirements until the page is closed.
Alternate Courses	<p>AC1 User clears all search requirements</p> <ol style="list-style-type: none"> 1. System returns user to a page with all available pets of their selected animal group with a search bar with no selections. <p>AC2 User changes a requirement(s) after initial search</p> <ol style="list-style-type: none"> 1. Return to Main Course step 4
Exceptions	<p>EX1 There are no pets that match the user's search</p> <ol style="list-style-type: none"> 1. System notifies the user of a lack of match. 2. Return to Main Course step 3 until the user is satisfied with the pet selection or navigates away from the page.



Name	Visitor account creation
ID	visitorAct_001
Description	A site user would like to create a standard visitor account on the site.
Actors	A non-account holding visitor to the site.
Organizational Benefits	Can provide a better personalized experience for the user.
Frequency of Use	Those who adopt pets through the system will need an account, along with any visitor who would adopt a pet. Most visitors will fall under those categories.
Triggers	User clicks on "Create Account"

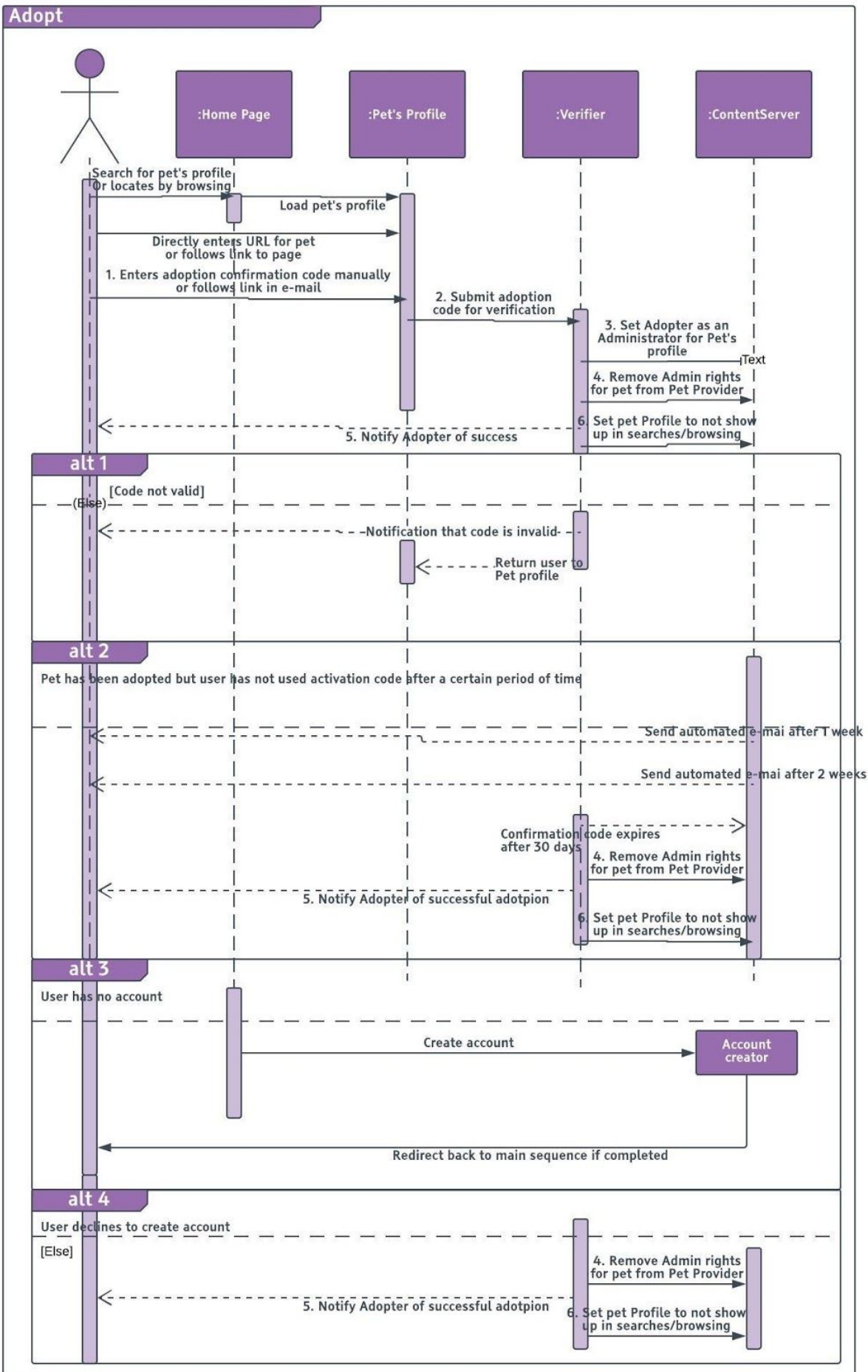
Preconditions	The user does not have an account.
Postconditions	The user will have an account with unique login information.
Main Course	<ol style="list-style-type: none"> 1. User enters in the email address they would like to log in with. 2. System determines that there is no existing account with that email and takes the user to a page to fill out their information. 3. User puts in their information into the form. 4. System checks and sees that all parts of the form have been filled out and saves the information. 5. User is notified of successful account creation.
Alternate Courses	<p>AC1 User actually wanted to create an account for an organization offering pets up for adoption.</p> <ol style="list-style-type: none"> 1. See “Pet Provider Account Creation” use case.
Exceptions	<p>EC1 There is an existing account with an email the user is trying to make an account with.</p> <ol style="list-style-type: none"> 1. System asks the user if they forgot their password and asks them to enter their email for password reset. <p>EC2 User did not fill out every part of the form.</p> <ol style="list-style-type: none"> 1. System brings user back to the form and highlights the missing areas. 2. Return user to Main Course step 3.



Name	Adopt
ID	adopt_001
Description	The process for a person to adopt a pet, that is, gain control of the pet's profile. This is the pet owner's part of the "Transfer pet to new owner" process.
Actors	Adopter, Pet Provider, Verifier
Organizational Benefits	Keeps the transfer of profile control relatively simple.

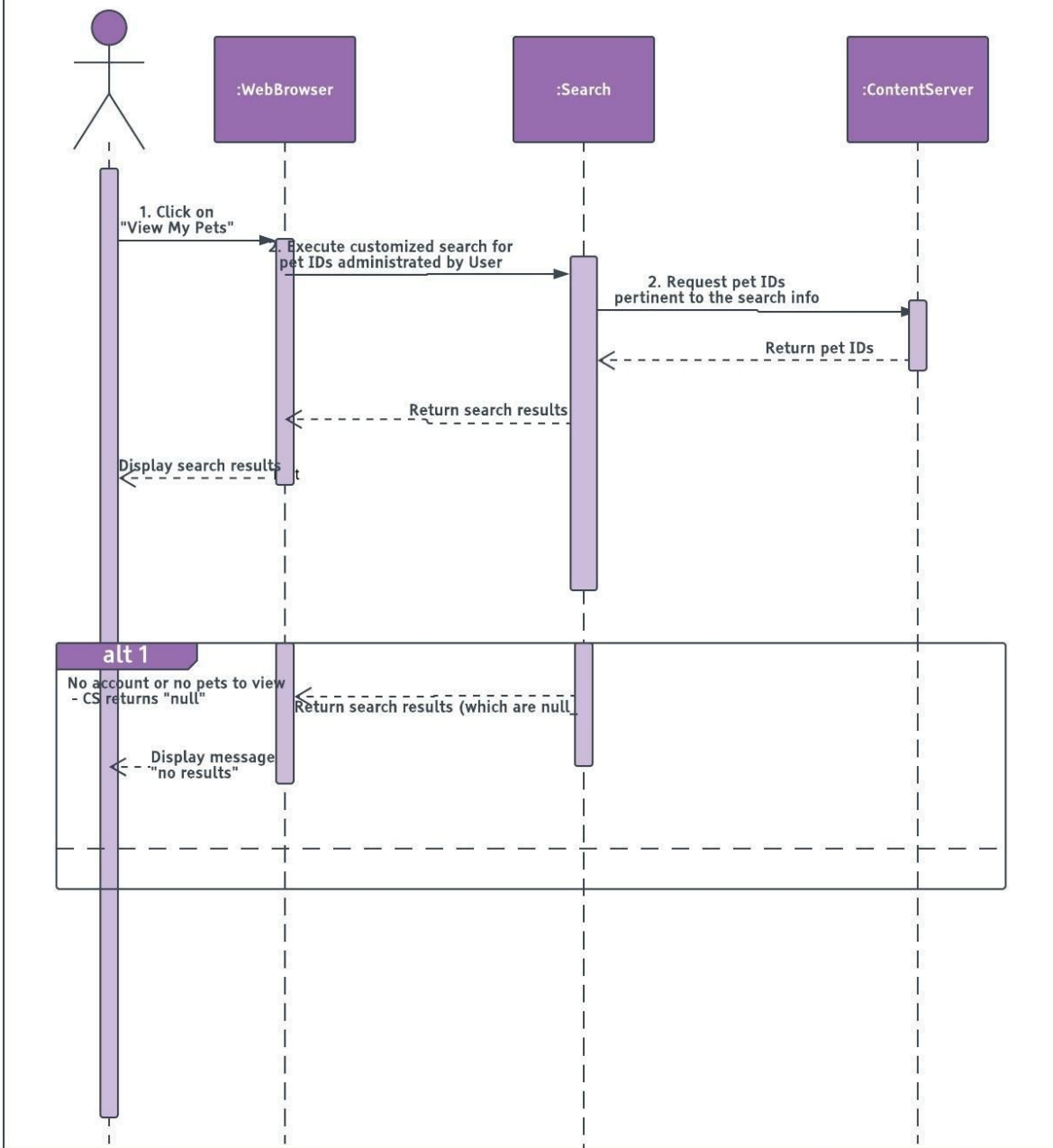
Frequency of Use	Frequent
Triggers	Adopter has adopted an animal from the Pet Provider, who has provided them with a confirmation code.
Preconditions	The pet is available for adoption, a confirmation code has been generated by the “Transfer pet page to new owner” process, Adopter has received the confirmation code, Adopter has an account.
Postconditions	The pet page is now controlled by adopter
Main Course	<ol style="list-style-type: none"> 1. Adopter enters the confirmation code provided to them by e-mail (or a hyperlink in the e-mail does this for them). 2. Verifier checks the validity of the confirmation code. 3. If the confirmation code is valid, the owner of the pet’s profile changes from Pet Provider to Adopter. 4. The Pet Provider receives a confirmation notice. 5. The Adopter receives a confirmation notice. 6. The pet’s profile is no longer visible by a search or by browsing.

Alternate Courses	<p>1. If the verification code is invalid, the transfer is not completed. If this is in error, the Pet Provider can perform the “Transfer pet page to new owner” process again (generating a new code) at the request of the Adopter.</p> <p>2. Adopter ignores or does not receive the confirmation e-mail (e.g. it’s filtered as spam): There needs to be some mechanism in place for the owner simply not entering a code after they’ve adopted the animal. For one thing, we can’t force them (or maybe I should say we shouldn’t) into creating an account. I’d suggest generating two reminder e-mails spaced several days apart after the first e-mail if the confirmation code is not used. After a set period of time (say, 30 days), the confirmation code expires and the pet’s profile is not attached to anyone. It still exists and could be claimed in the future, but it doesn’t show up on user searches or when browsing.</p> <p>3. If the Adopter does not have an account yet, they must create one before the transfer to their profile can be completed.</p> <p>4. Adopter opts out of creating an account (we need to allow for this): In that case, skip Step 3 in the main sequence.</p>
Exceptions	<p>The person attempting to verify does not have a user account.</p> <p>Verification process is not completed.</p> <p>Confirmation notices are not generated or received.</p> <p>Pet’s profile is not successfully transferred to Adopter.</p> <p>Pet’s profile remains publicly visible even after it has been removed from the Pet Provider’s control.</p>



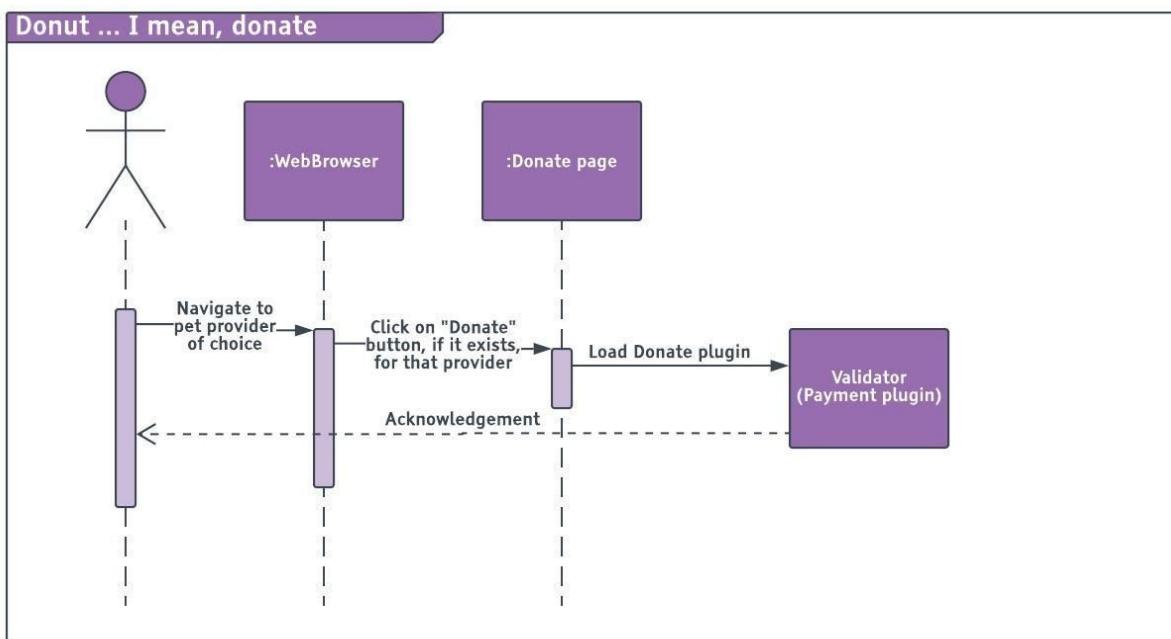
Name	View My Pets
ID	view_pets_001
Description	Permits a user to view all pets administrated by their profile.
Actors	User
Organizational Benefits	A quick method for people to see only their own pets (or those available by their adoption agency), rather than browsing or searching for pets.
Frequency of Use	Somewhat frequent.
Triggers	A User wants to see the profiles of animals they own, or a Pet Provider wants to see the profiles of the animals they have.
Preconditions	User has an account
Postconditions	User sees the pet profiles administrated by their account
Main Course	<ol style="list-style-type: none"> 1. User clicks on “View My Pets” 2. The system performs a custom search for IDs of pet profiles administrated by the user’s account and displays them as if a search had been performed, e.g. with tiled thumbnails.
Alternate Courses	<ol style="list-style-type: none"> 1. No pets are administrated by this account: Displays a message that there are no pets to view. 2. System tries to locate a profile that does not exist for some reason: Display an error message.
Exceptions	Pet profile ID is invalid

View My Pets



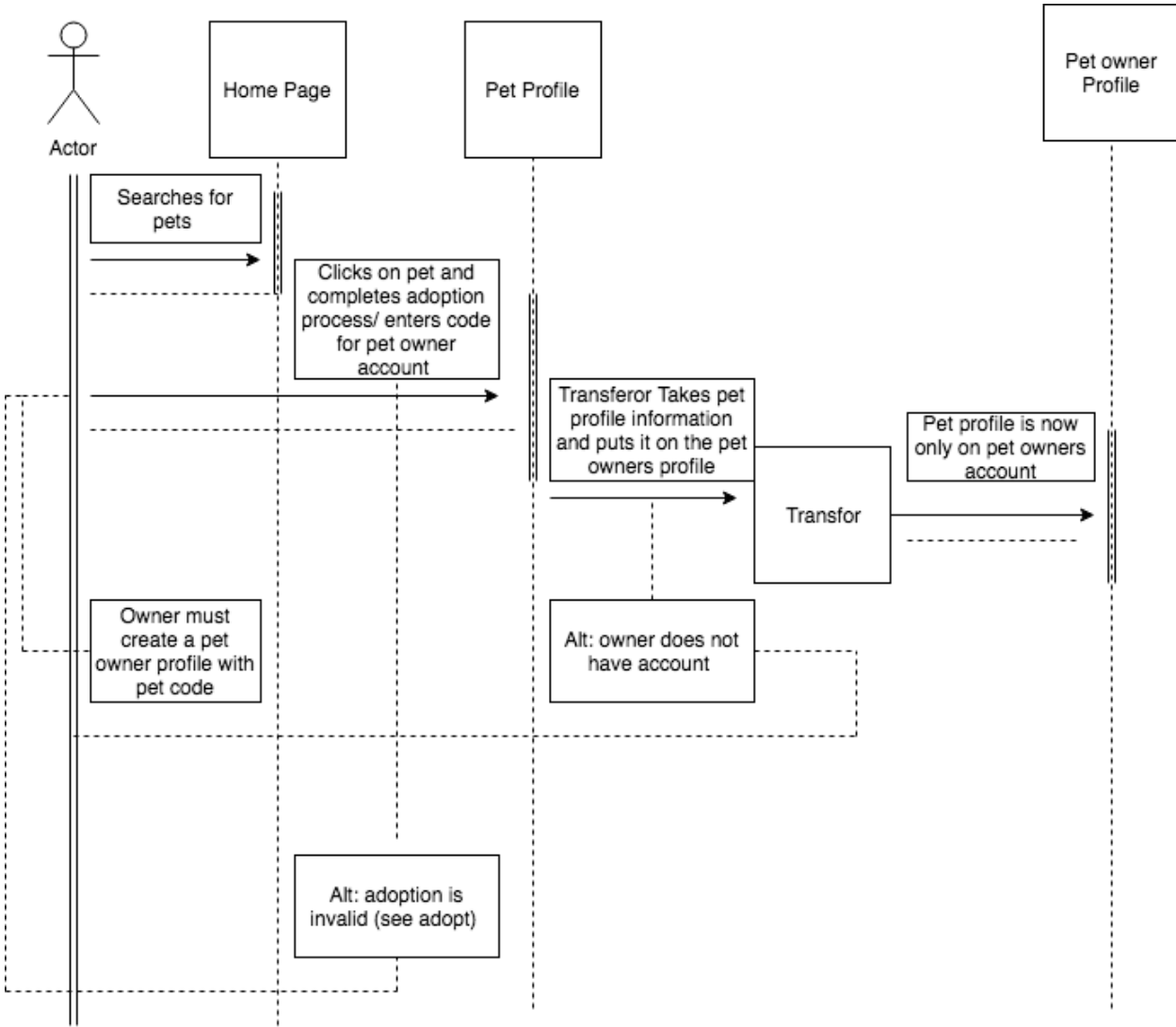
Name	Donate
ID	donut_001
Description	Allows Visitors to donate to a Pet Provider
Actors	Visitor, Pet Provider, Validator, Payment Processor (a plugin)
Organizational Benefits	Fulfills customer Requirement
Frequency of Use	Infrequent
Triggers	Visitor is feeling generous.
Preconditions	Pet Provider has a profile that permits donations.
Postconditions	Pet Provider receives a donation.
Main Course	<ol style="list-style-type: none"> 1. Visitor views the profile of a Pet Provider and clicks “Donate to This Provider” <li style="text-align: center;">----This stuff must be done in the plugin--- 2. Visitor is prompted by the Payment Processor to provide payment method, billing information, and e-mail (for receipt) 3. Visitor submits payment method for validation. Validator (via the Payment Processor) verifies their payment method. 4. Visitor is provided a receipt for their records. 5. Funds are deposited into the Pet Provider’s donations account by the Payment Processor.

Alternate Courses	<p>----This stuff must be done in the plugin---</p> <ol style="list-style-type: none"> 1. If the payment method is invalid, the Visitor is prompted to enter new payment information or allowed to cancel. 2. If the visitor requests a refund for their donation, the refund is handled by the appropriate process in the Payment Processor. 3. If the visitor cancels in mid-process, the donation does not occur.
Exceptions	<p>Visitor cancels.</p> <p>Visitor's payment information is invalid.</p> <p>Pet Provider does not have a profile that accepts donations.</p> <p>Pet Provider does not receive the donated funds. (This is a Payment Processor problem, or the Pet Provider did not set up their account correctly.)</p> <p>Visitor does not receive their receipt but wanted one.</p>



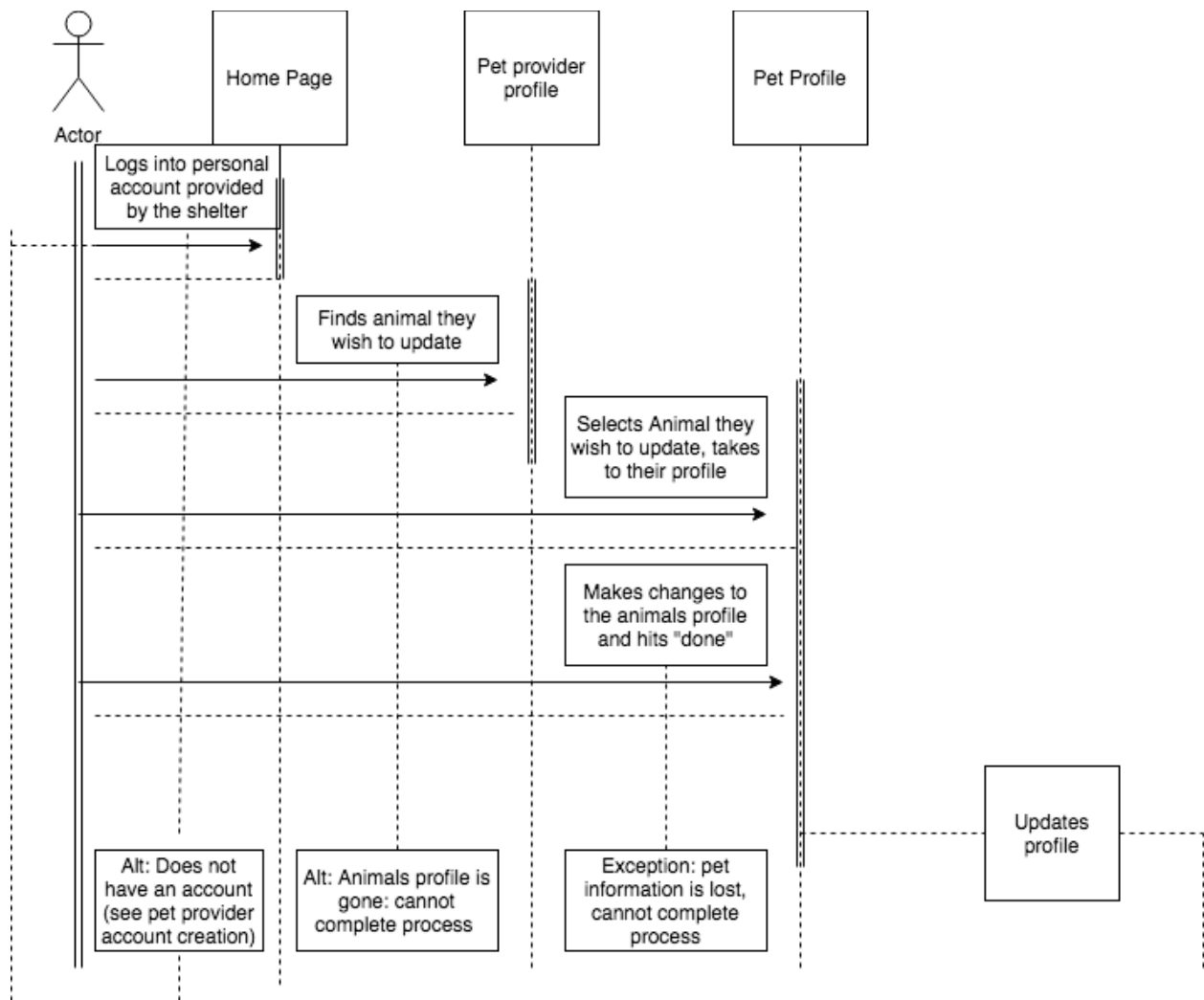
Name	Transfer pet page to new owner
ID	transfer_petPage_001
Description	Transfers new adopted pet's information to the new pet owners personal page. This pets profile is now only accessible and public to the new pet owner.
Actors	Pet provider, transferor, pet owner
Organizational Benefits	Helps keep information private when needed. It will keep the clutter out when making already adopted animals private instead of always having them private
Frequency of Use	Frequent. After any adoption an adoption code will be sent to the pet owner and if they chose to create their new pet owner account with access to their new pets profile the transfer process will occur
Triggers	A visitor becomes a pet owner through adoption.
Preconditions	A confirmation code has been sent to the new pet owner so they can access their new pets page
Postconditions	The pets profile is now only privately accessible to the new pet owner
Main Course	<ol style="list-style-type: none"> 1. New pet owner successfully completes adoption process 2. Pet provider is notified that that animal will be taken out of their "adopt me" database 3. Transferor will take data from the pet providers and enter it onto the new pet owners "my pets" list 4. Only the pet owner will have access to this pet profile now
Alternate Courses	<ol style="list-style-type: none"> 1. New pet owner does not successfully complete the adoption process (see adopt_01for steps), then return to main course 2. Pet owner does not want a new account to view the pets profile. We will keep the newly adopted pets information in our database but no one will have access to this pets information. If, later the pet owner would like to create the account we will be able to access the animal's information and create the account. This would follow "main course"

Exceptions	1. Verification code is lost so pet owner can not verify their new adoption 2. Pet profile information is accidently lost instead of stored



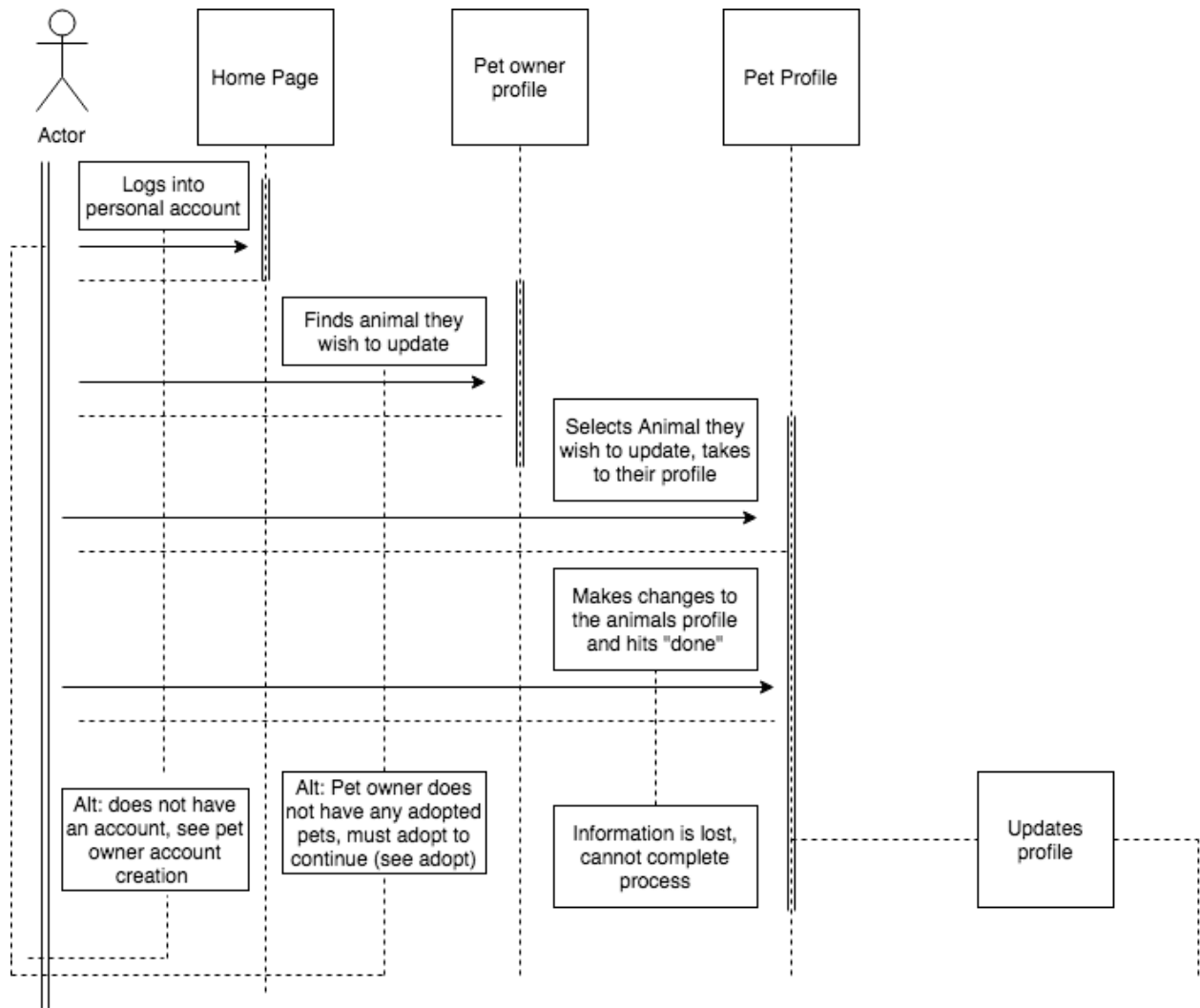
Name	Pet provider editor
ID	petProvidor_editor_01

Description	Allows the pet provider to edit any of their current unadopted pets profiles
Actors	Pet provider
Organizational Benefits	Easily accessible to update information to keep it up to date
Frequency of Use	Frequent . This will happen whenever there is a new animal to adopt, a new pet provider wants to put their animals on the site or new medical records / information needs to be updated on a specific animal
Triggers	<ol style="list-style-type: none"> 1. A new pet is up for adoption 2. A pet's profile needs to be updated 3. A new shelter wants to input all their pets onto the website
Preconditions	A pet provider has an account and needs to update and animals records
Postconditions	The pets profile is updated
Main Course	<ol style="list-style-type: none"> 1. Pet provider logs into their account 2. They go to their profile and click to find a list of all their current available pets 3. They select the pet who's profile they wish to update 4. They update the profile and click done
Alternate Courses	<ol style="list-style-type: none"> 1. The pet provider does not have an account and has to create one before the main course process (see pet provider account creation) 2. Pet they wish to update has been adopted and they no longer have access to the pet's information or profile, would have to exit process 3. Pet they wish to update has been accidentally been set to private or they just cannot find the pets profile, would have to check databases for pet profile information, when found follow main course
Exceptions	<ol style="list-style-type: none"> 1. Lost the pet information they wish to update 2. No longer need to update the pets profile (someone already did it)



Name	Pet owner editor
ID	petOwner_editor_001
Description	Allows the pet owner to edit any of their current adopted private pet profiles
Actors	Pet owner

Organizational Benefits	Easily accessible to update information to keep it up to date
Frequency of Use	Infrequent, only when a pet owner wants to keep their animals records updated on the site for their own personal records
Triggers	A newly adopted pet has information their owner wants to update on their profile
Preconditions	A pet owner has a pet owner account with valid pets on it
Postconditions	The pets profile is updated
Main Course	<ol style="list-style-type: none"> 1. Pet provider logs into their account 2. They go to their profile and click to find a list of all their current adopted pets 3. They select the pet who's profile they wish to update 4. They update the profile and click done
Alternate Courses	<ol style="list-style-type: none"> 1. The pet owner does not have an account and has to create one before the main course process (see pet owner account creation) 2. Pet owner did not transfer the pet page to their account with the activation code (see transfer pet page to new owner) and must do so before they have access to update any pet account 3. Pet owner has not adopted any pets yet and must do so before they have access to update any pet account
Exceptions	<ol style="list-style-type: none"> 1. Lost the pet information they wish to update 2. No longer need to update the pets profile (someone already did it)



Name	Enter new pet
ID	AddNewPet_001
Description	A user with a pet provider account wants to add a new pet for adoption to be displayed on the website.
Actors	Pet provider user
Organizational Benefits	Increases the odds a pet being adopted because it's profile is being displayed on the website.
Frequency of Use	A pet provider will add a new pet whenever one becomes available for adoption. Given that, per the ASPCA, approximately 6.5 million pets enter U.S. animal shelters each year nation wide, a pet provider will add virtually at least one new pet everyday.
Triggers	The user selects an option to add a new pet.
Preconditions	The user must be logged into a pet provider account.
Postconditions	The newly created pet profile is visible on the website. The user who created the pet profile can edit it.
Main Course	<ol style="list-style-type: none"> 1. System prompts user to enter all required information for pet profile creation. 2. User fills out all required fields. 3. User confirms pet profile submission. (See AC1)
Alternate Courses	<p>AC1 The user cancels creation of new pet profile</p> <ol style="list-style-type: none"> 1. Return user to website homepage <p>AC2 The user does not fill in all required fields</p> <ol style="list-style-type: none"> 1. Return to Main Course step 1 2. Incomplete fields will be highlighted
Exceptions	<p>EX1 System fails on confirming pet profile</p> <ol style="list-style-type: none"> 1. The user is notified. 2. Return to main course step 1.

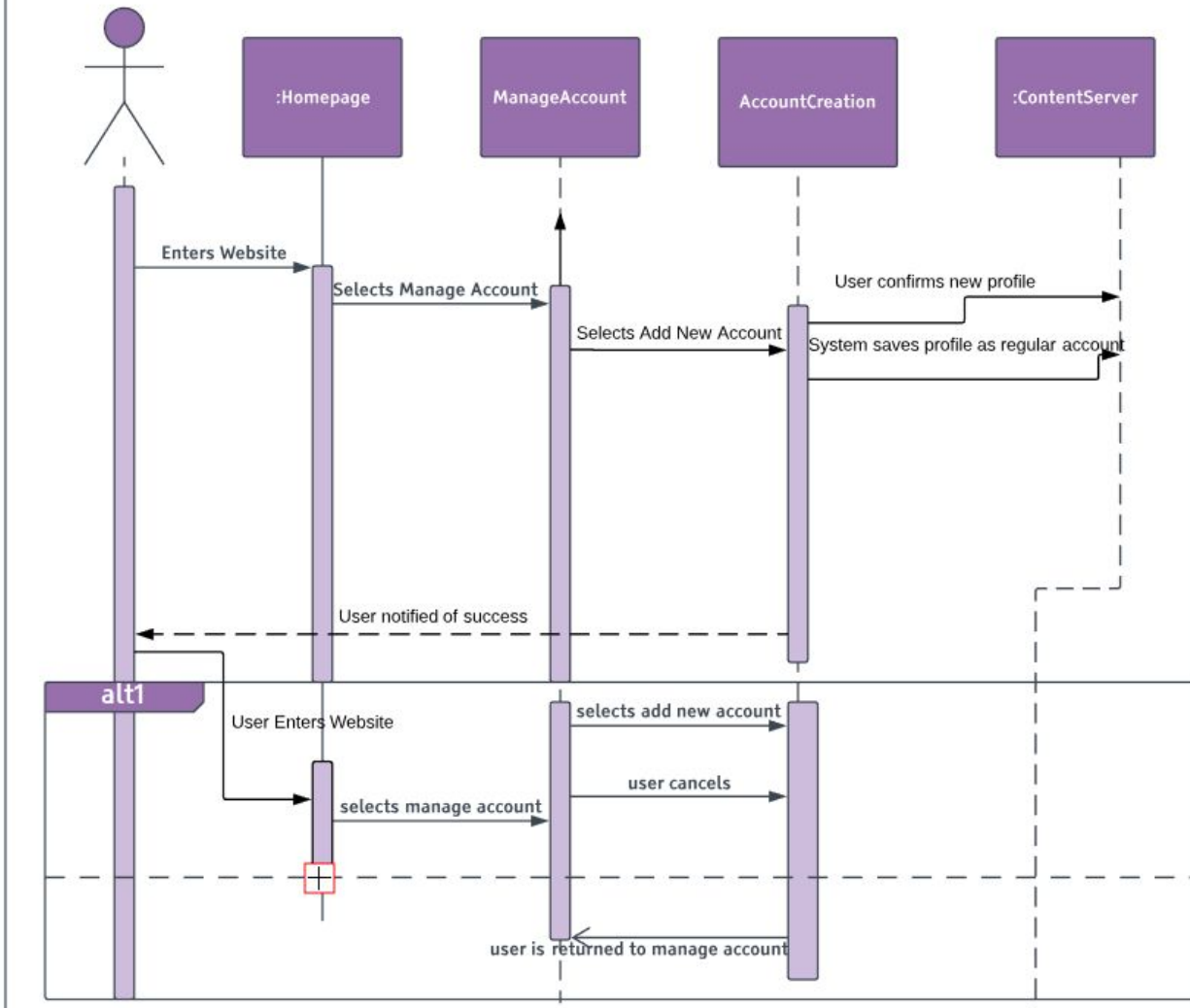
Name	Pet provider admin user account creation
ID	PetProv_AdminAcctCreation_001
Description	A pet provider wants to create an account on the website affiliated with his/her animal adoption company. The company is issued an activation code from the website and inputs it to start the account creation process. The account is then created as the administrative account for the company, saved in the system, and linked to the pet adoption company.
Actors	Pet Provider, Verifier
Organizational Benefits	Allows a pet provider to: add their existing inventory of pets for adoption, add new pets, and manage pet profiles.
Frequency of Use	One administrative account is to be made for one company. The projected amount of accounts that are made each day cannot be gauged at this time.
Triggers	The user selects the option to create an account.
Preconditions	The user must be given an activation code.
Postconditions	The user is able to manage their account settings, add new regular accounts under the admin account, and manage their pet inventory.
Main Course	<ol style="list-style-type: none"> 1. The system prompts the user to input the activation code. 2. Verifier checks that the code is valid (See AC2) 3. User fills in all required fields. 4. System saves the account as admin account

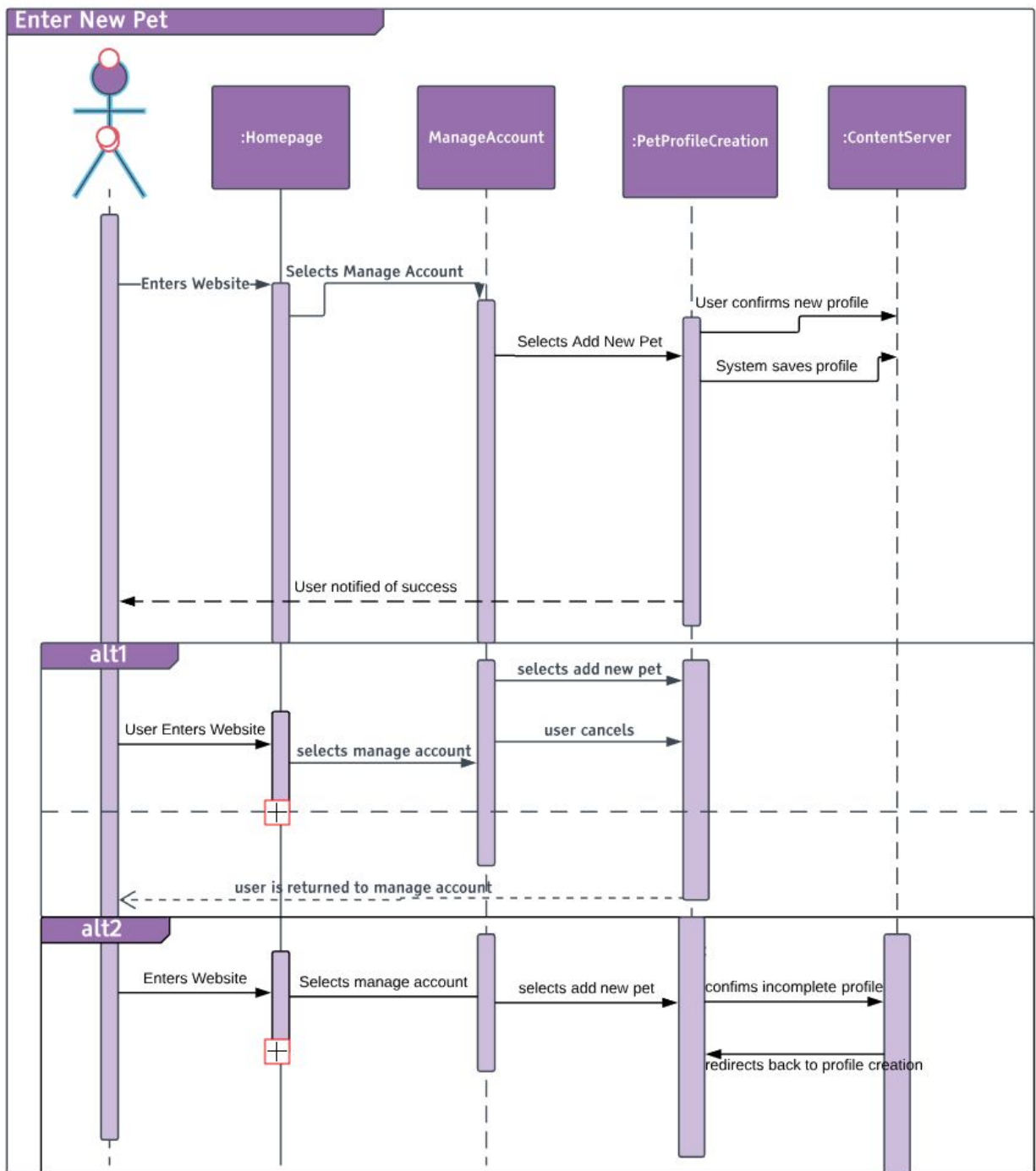
Alternate Courses	<p>AC1 User cancels account creation.</p> <ol style="list-style-type: none"> 1. Return user to login screen. <p>AC2 There is already an admin account affiliated with the pet provider.</p> <ol style="list-style-type: none"> 1. Informs user. 2. Returns to login screen.
Exceptions	<p>EX1 User confirms account creation and does not fill in all required fields.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 1 with unfinished fields highlighted. <p>EX2 User confirms with a password that does not meet the requirements.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 1.

Name	Pet provider admin user creating regular pet provider account
ID	PetProv_Administrate_CreateRegularAccount_001
Description	A pet provider admin wants to create an account administered by them for their company.
Actors	Pet Provider Admin

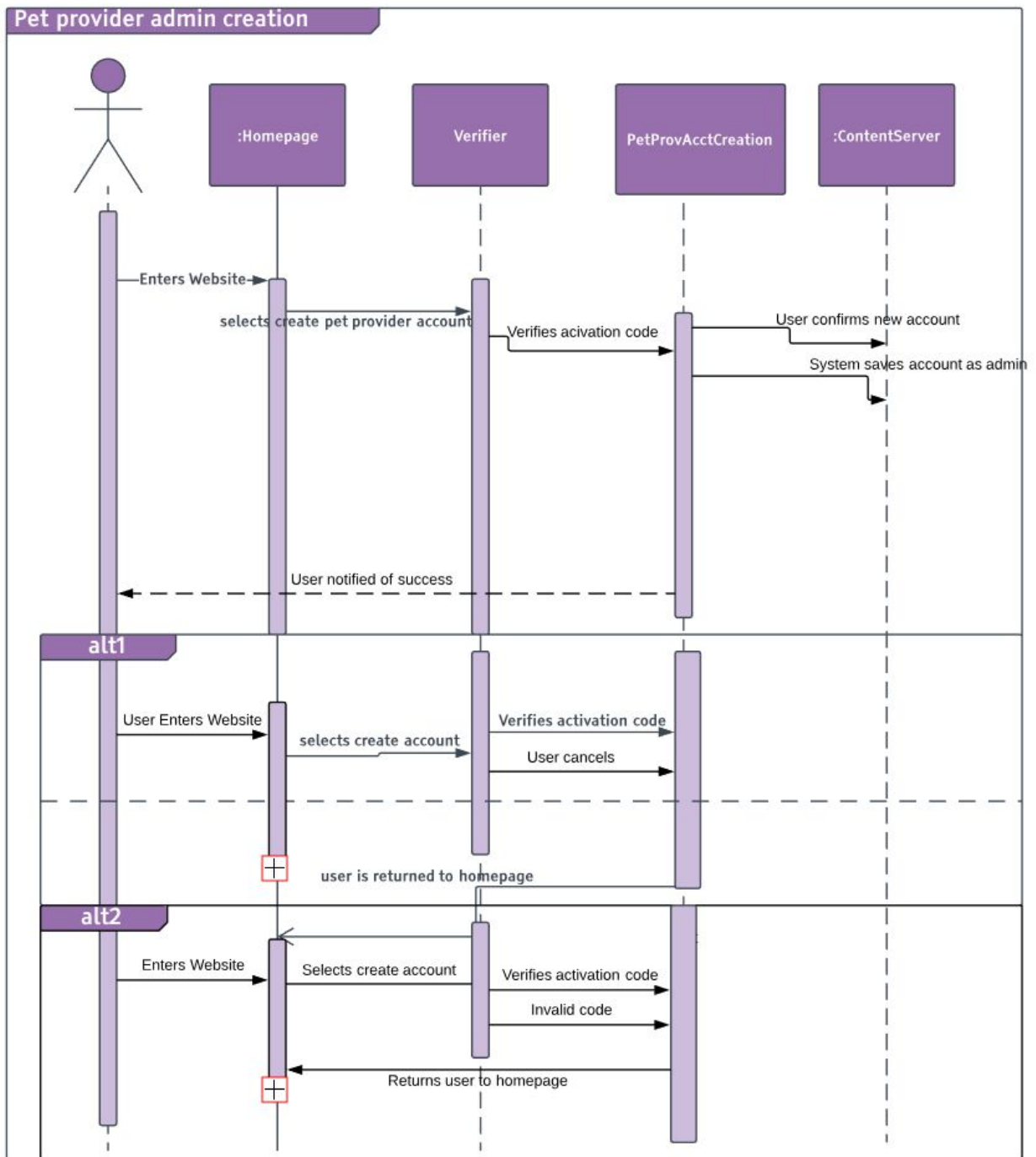
Organizational Benefits	Allows a pet provider to have more than just one account to manage pet inventory. Allows for multiple users to be operating on the website at the same time.
Frequency of Use	An administrative account can create as many accounts as they want.
Triggers	The admin user selects the option to create a new account.
Preconditions	The user must be an admin account for the pet provider.
Postconditions	The newly created pet provider account is created as a regular account, but may be changed to another admin account by the creating administrator.
Main Course	<ol style="list-style-type: none"> 1. The system prompts the user to confirm that they want to create a new account with an informative text box (See Postconditions) 2. User fills in all required fields. 3. User confirms account creation. 4. System saves the account as a regular account administered by the user.
Alternate Courses	<p>AC1 User cancels account creation.</p> <ol style="list-style-type: none"> 1. Return user to account management screen.
Exceptions	<p>EX1 User confirms account creation and does not fill in all required fields.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 2 with unfinished fields highlighted. <p>EX2 User confirms with a password that does not meet the requirements.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 2. <p>EX3 User confirms with an account name that is already in use.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 2.

PetProviderAdmin creates

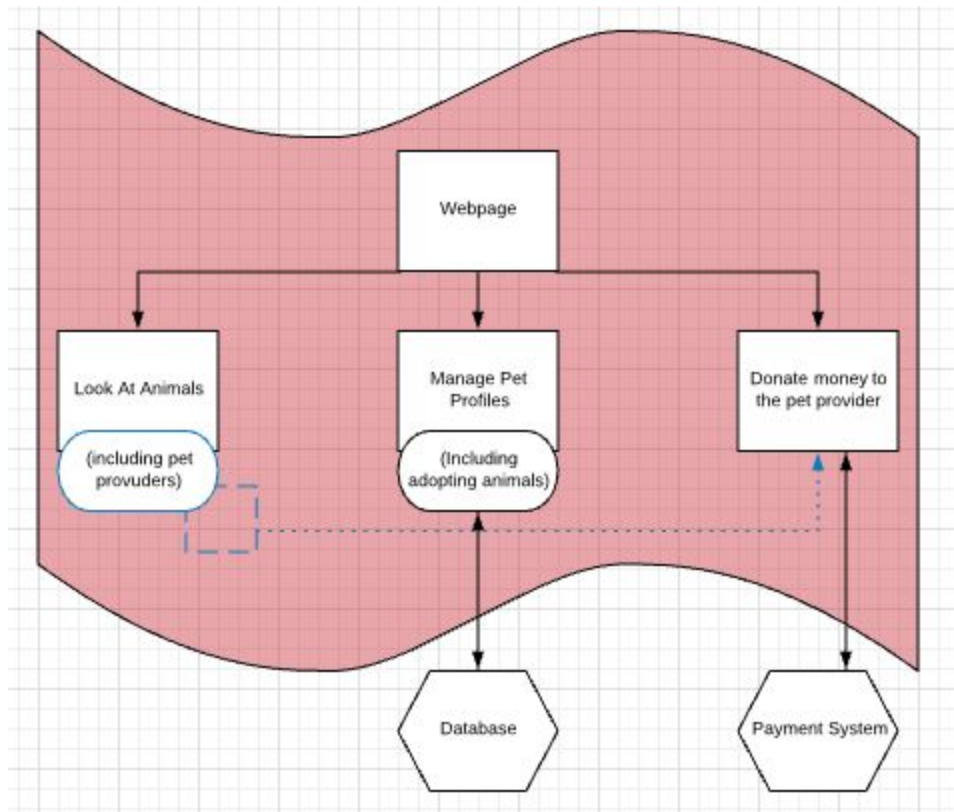




Pet provider admin creation



HLA Diagram



Class Diagrams

For whoever's doing the actual diagrams:

Key: Top-level object is bold and underlined. Classes that inherit from them are underlined and indented.

You should be able to just copy and paste 90% of this into diagrams, but you'll have to draw lines for the "uses" and "inherits." The appendix in the textbook has a tutorial for UML diagrams if you don't remember all the symbols from the 20 minutes spent on it in 237 :P

AnonymousUser

Search() //Remember, browsing is just a special case of searching
donate(PetProvider)

//Instantiated at login.

UserAccount

accountID //unique code for the account (might be generated by DB)
//userName //?? Should probably use a username/password manager

firstName
lastName
City //Location information might be used in some searches.
state
zipCode
Pets[] //Pets administrated by the profile. Enables “view my pets” quickly

generateAccountID() //Might be handled by the DB
editAccountDetails() //This is the actual information for the account
editProfileAppearance() //This is just how the account displays
adopt() //The function that processes an adoption confirmation code.
//Calls a verification routine handled by the Verifier.

PetProviderAccount (type of user, non-admin, such as a volunteer)

petProviderID[] //These are codes for the adoption facilities/vets, different
//from the accountID for the user.
//Why an array? They might work for more than one.

addNewPet() //Allows the creation of a pet page. Only by pet providers?
setters/getters
claimPetPage() //Sometimes the adoption center needs to forcibly claim a
//pet’s page.

PetProviderAdmAccount

addNewAdministrator(petProviderID) //Give administrator rights to a PPaccount
petProviderProfileEditor() //Edits this’s profile deets
editPetProviderProfileAppearance() //edits the actual display

VeterinarianAccount (special type of PetProvider)

animalTypes[] //?? (Some vets only treat certain types of animals)
vetID //A special ID code

//If this vet treats a pet, it should be able to look up its patients. Similar to
// “my pets” but this is shared by a vet facility.

patients[]
addMedicalRecords(petID)
editMedicalRecords(petID) //Should use a verifier (see below)

GlobalAdministrator //Has admin rights for the ENTIRE site

```
blockUser()
deleteAccount()    //for some definitions of “delete”
deletePage()
//Needs to be able to edit any profile’s or page’s details
```

//This is the actual pet provider facility, not someone who uses it.

//Should be dynamically generated from DB info.

PetProvider

```
city                //Location information used in searching.
state
zipCode
petProviderID       //The unique code for this facility.
```

//Letting the PetProvider object keep its own pets array allows anonymous access

```
pets[]
```

```
dontate(this)       //Calls the payment processor for this
donationInfo        //Don’t know what this is yet.
```

//Should be dynamically generated from DB info.

PetProfile

```
petID               //A special unique code for the animal
vetID               //The ID of this’s veterinarian
medicalRecords[]   //??
owner               //ID of the pet’s administrator
```

```
generatePetID()     //this might be a temporary thing, until the animal is chipped,
                    //or some animals might not be chipale and we need a way to
                    //keep track of them
```

```
transfer_PetPage(destinationAccountID) //A user sends this to another user
viewMedicalRecords(accountID)          //Display the medical records stored in DB
                                        //must verify account has access.
```

```
viewFullPicture()   //Some script to blow up the thumbnail
petProfileEditor()
getters/setters
```

//Even without special characteristics for the subtypes, remember that the

//concept of “is a type of” is in many OO languages; helps with search or DB

Dog

Cat

Rabbit

Bird

Other

E.g. breed

color //could be different options for each type of animal

characteristic1 //for searching ... if you think of any, name them

characteristic2 //or we should really make the customer name them ...

characteristic3

//Instantiated when the system is loaded.

Verifier //validates codes

verifyUserAccountActivationCode(code)

verifyPetProviderAccount(code)

verifyAdministratorRightsCode(code)

verifyMedicalRecordsAccess(petID, accountID)

Webpage //These should be HTML, so take “display()” as read.

Homepage

Menu/Header //Stuff that’s initializable from *any* page in the domain.

login(username, password) //Need a secure manager ...

createAccount()

createPetProviderAccount()

navigateTo...() //Obviously just e.g. hyperlinks in the menu

viewMyPets() //Displays, as if search results, the profiles in this’s pets[]

//Dynamically generated from objects.

PetProviderPage //Display mechanism

UserProfilePage //display mechanism for the User account details

Search //For advanced search options

Search Results //includes Browsing, View My Pets, etc.

PaymentProcessor //lives in a frame on a pet provider profile, but it’s its own thing

processPayment() //This should just load the payment processor plugin

storePaymentStats() //Keep some stats like the amount donated?

processAcknowledgment() //Depends on the implementation inherent in the plugin

UserNameAndPasswordManager

verifyLogin()

//Whatever this entails.

Class Diagrams

