

Paw Pal

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Problem

During covid, many people work from home and the emotional support for individuals were decreases significantly.

According to research by the Society for Human Resource Management, between 22% and 35% of U.S. employees are experiencing symptoms of depression as they live through the COVID-19 pandemic.

Meanwhile, the street animal has always been an issue for the environment. The overall US adoption rate was between 37% and 41%.

More than 23 million American households, which is 1 out of 5, has adopted an animal during covid. This number was a 250% increase compared to 2019 before covid.

Solution

We combine these two social issues together and provide a system that makes the process of adopting street animals easy and secure.

We consider the use case from rescuers, medical checkers, volunteers, and adopters. At the same time, with the use case of system administrator, this system is expandable at the global level.

The purpose of our system is to make sure the animal is healthy both mentally and physically; at the same time, we verify the adopter is qualified before accessing the animal's information. We also provide the opportunity to volunteer and the volunteers could process their work independently.

Every animal is responsible by a single manager, the manager is permitted to have an overview of an animal.

Stakeholders



Animal Shelter



Medical Care

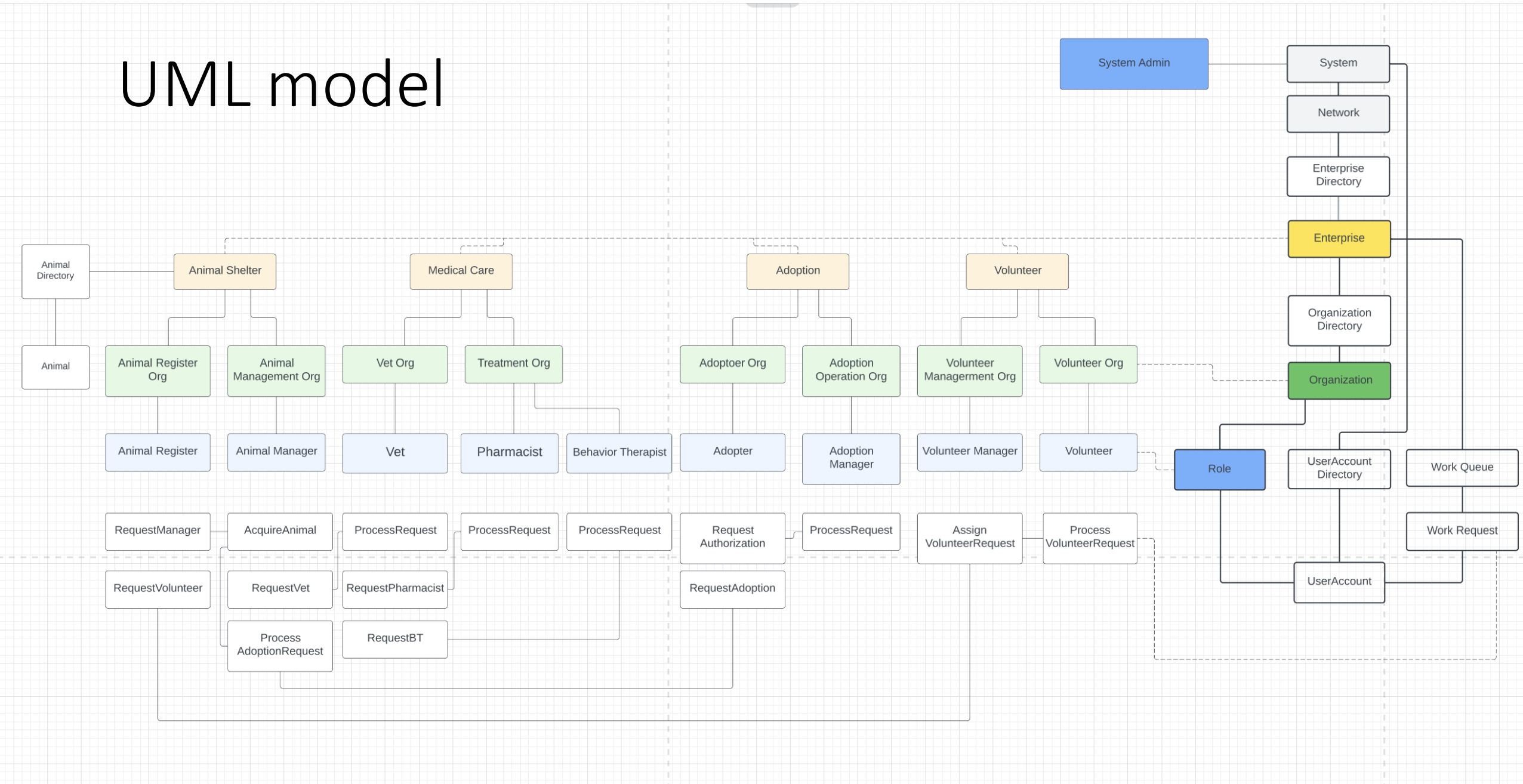


Adoption

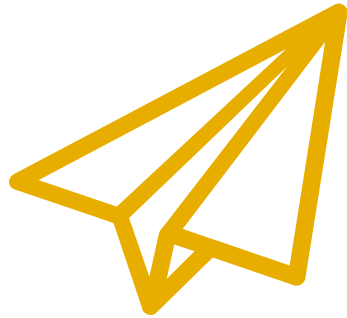


Volunteer

UML model



Advance Feature



Email



Service overview

Advance Feature: e-mail

Account activation ➤ Inbox x



paw pal <pawpalteam@gmail.com>
to me ▾

8:53 PM (0 minutes ago)



Dear Adopter,
your PawPal account: [jasmine001] has been activated. You can check your status through your credentials.
Thank you!

Your Adoption Request is Approved ➤ Inbox x



paw pal <pawpalteam@gmail.com>
to me ▾

8:54 PM (0 minutes ago)

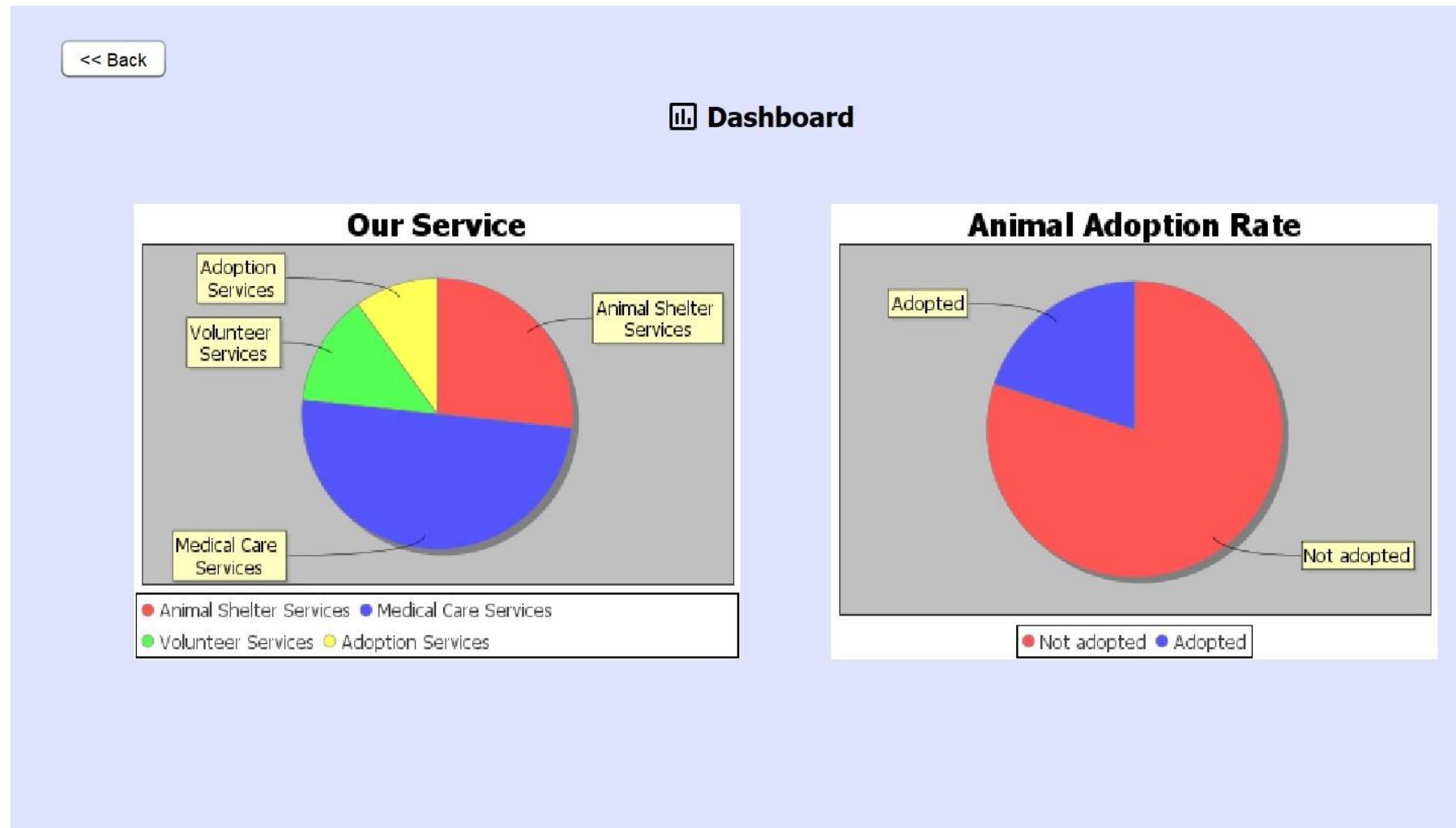


🌐 English ▾ > Chinese (Traditional) ▾ [Translate message](#)

[Turn off for: English](#) x

Dear Adopter,
Congratulations! Your adoption request is approved. You can check the status through your credentials.
Thank you!

Advance Feature: service overview



System Admin: service structure

Network

Enterprise

Organization

User

System Admin



Admin:
Populate the structure

Enterprises and Organizations

Animal Shelter



Animal register:
add rescued animal into
system, request volunteer



Animal manager:
take total responsibility of
an animal

Medical Care



Vet Organization:
serve as an animal's family
doctor, do first step check



Treatment Organization:
Pharmacy, give additional
treatment



Treatment Organization:
Behavior therapist, do
advance check



Adoption Enterprise



Adopter organization:
the solo external user of the
system, check status and requests



Adoption Operation Organization:
approve adopter accounts



Volunteer Enterprise



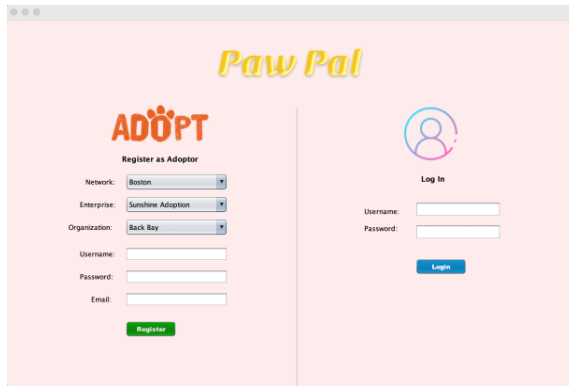
Volunteer:
get job and report process



Volunteer manager:
destinate volunteers to
tasks

Use case Sequence

System Admin



Paw Pal

ADOPT

Register as Adopter

Network:

Enterprise:

Organization:

Username:

Password:

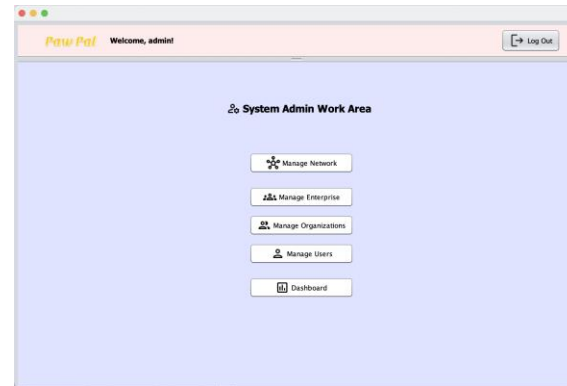
Email:

Log In

Username:

Password:


Log In



Paw Pal Welcome, admin!

System Admin Work Area

Choose task



Paw Pal Welcome, admin!

Manage Network

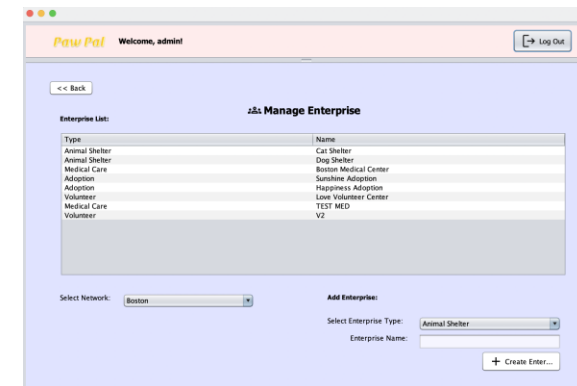
Network List:

Name
Boston

New Networks:

Name:

Create Network



Paw Pal Welcome, admin!

Manage Enterprise

Enterprise List:

Type	Name
Animal Shelter	Cat Shelter
Animal Shelter	Dog Shelter
Medical Care	Boston Medical Center
Adoption	Sunshine Adoption
Adoption	Happiness Adoption
Volunteer	Low Volunteer Center
Medical Care	TEST MED
Volunteer	VZ

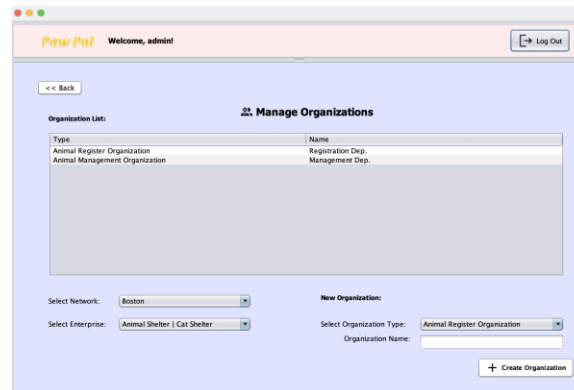
Select Network:

Add Enterprise:

Select Enterprise Type:

Enterprise Name:

Create Enterprise



Paw Pal Welcome, admin!

Manage Organizations

Organization List:

Type	Name
Animal Register Organization	Registration Dep. Management Dep.

Select Network:

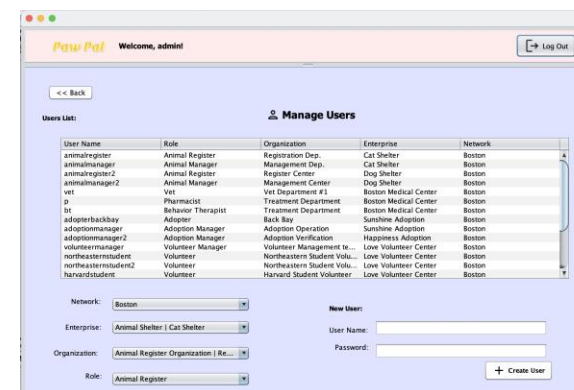
Select Enterprise:

New Organization:

Select Organization Type:

Organization Name:

Create Organization



Paw Pal Welcome, admin!

Manage Users

Users List:

User Name	Role	Organization	Enterprise	Network
animalregister	Animal Register	Registration Dep.	Cat Shelter	Boston
animalmanager	Animal Manager	Management Dep.	Cat Shelter	Boston
animalregister2	Animal Register	Register Center	Dog Shelter	Boston
animalmanager2	Animal Manager	Management Center	Dog Shelter	Boston
vet	Vet	Vet Department #1	Boston Medical Center	Boston
p	Pharmacist	Treatment Department	Boston Medical Center	Boston
bt	Behavior Therapist	Treatment Department	Boston Medical Center	Boston
adopterbackbay	Adopter	Back Bay	Sunshine Adoption	Boston
adoptionmanager	Adoption Manager	Adoption Operation	Sunshine Adoption	Boston
adoptionmanager2	Adoption Manager	Adoption Verification	Happiness Adoption	Boston
volunteermanager	Volunteer Manager	Volunteer Management	Low Volunteer Center	Boston
northeasternstudent	Volunteer	Northeastern Student Volu...	Low Volunteer Center	Boston
northeasternstudent2	Volunteer	Northeastern Student Volu...	Low Volunteer Center	Boston
harvardstudent	Volunteer	Harvard Student Volunteer	Low Volunteer Center	Boston

Network:

Enterprise:

Organization:

Role:

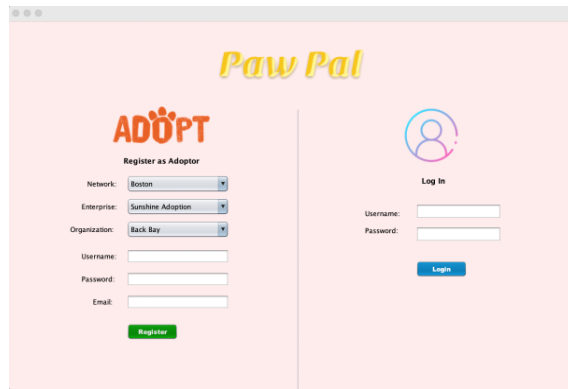
New User:

User Name:

Password:

Create user

System Admin



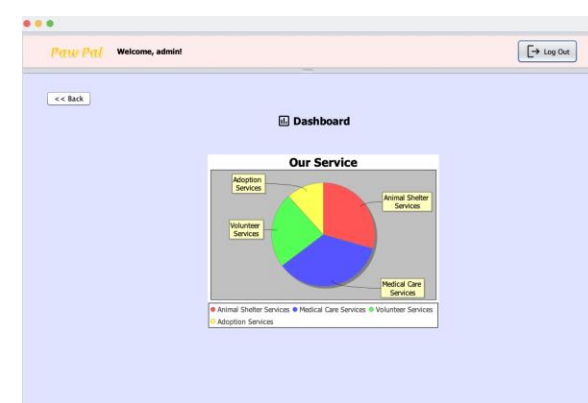
The login page for Paw Pal ADOPt features a light pink background. On the left, under the 'ADOPt' logo, is a 'Register as Adoptor' section with dropdown menus for Network (Boston), Enterprise (Sunshine Adoption), and Organization (Back Bay), followed by input fields for Username, Password, and Email, and a green 'Register' button. On the right, under a user icon, is a 'Log In' section with input fields for Username and Password, and a blue 'Login' button.

Log In



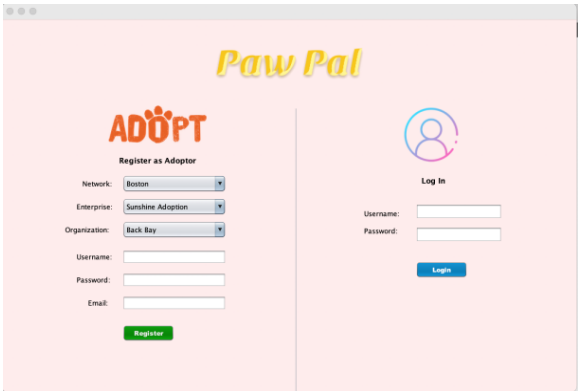
The 'System Admin Work Area' has a light blue background. It includes a 'Welcome, admin!' header with a 'Log Out' button. Below the header, the title 'System Admin Work Area' is followed by a list of task buttons: 'Manage Network', 'Manage Enterprise', 'Manage Organizations', 'Manage Users', and 'Dashboard'.

Choose task



View Dashboard

Animal Register




Paw Pal
ADOPt
Register as Adopter

Network:
Enterprise:
Organization:
Username:
Password:
Email:

Log In
Username:
Password:

Log In



Paw Pal Boston / Cat Shelter / Registration Dep. / Animal Register / animalregister

Animal Register Work Area

Choose task

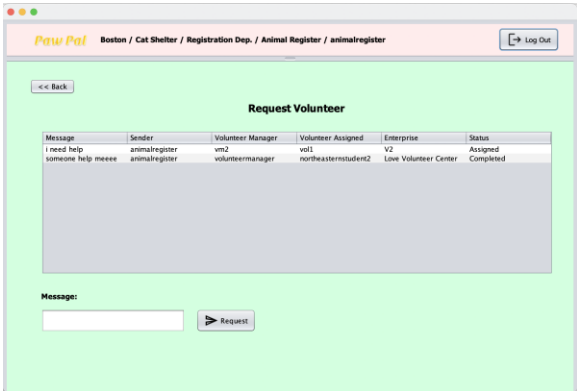


Paw Pal Boston / Cat Shelter / Registration Dep. / Animal Register / animalregister

Register Animal

Name:
Area:
Sex: ☐ Male ☐ Female
Weight:
Photo:

Register Animal



Paw Pal Boston / Cat Shelter / Registration Dep. / Animal Register / animalregister

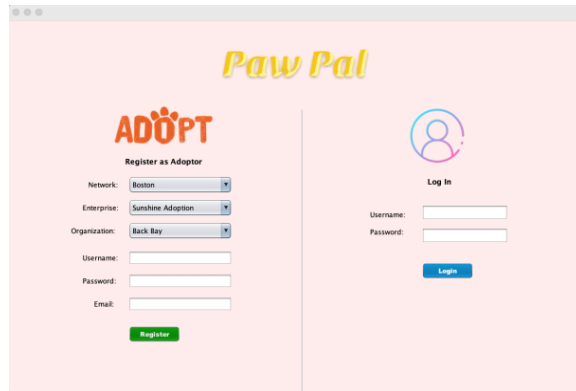
Request Volunteer

Message	Sender	Volunteer Manager	Volunteer Assigned	Enterprise	Status
I need help	animalregister	vm2	vol1	V2	Assigned
someone help meeee	animalregister	volunteermanager	northeasternstudent2	Low Volunteer Center	Completed

Message:

Request Volunteer

Animal Manager



Paw Pal

ADOPt

Register as Adopter

Network:

Enterprise:

Organization:

Username:

Password:

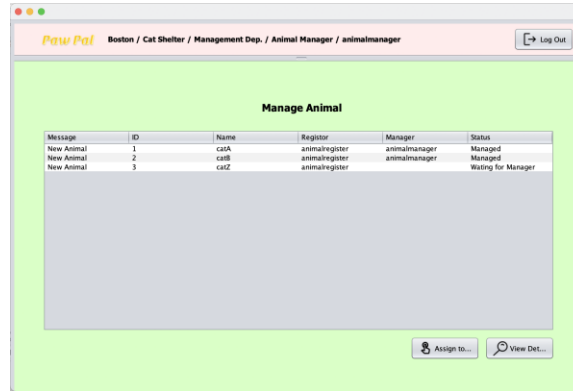
Email:

Log In

Username:

Password:

Log In

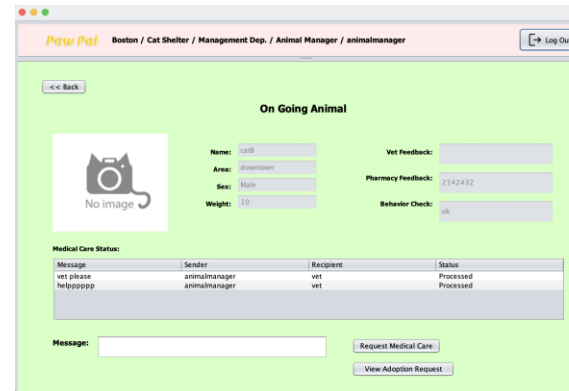


Paw Pal Boston / Cat Shelter / Management Dep. / Animal Manager / animalmanager

Manage Animal


Message	ID	Name	Register	Manager	Status
New Animal	1	catA	animalregister	animalmanager	Managed
New Animal	2	catB	animalregister	animalmanager	Managed
New Animal	3	catC	animalregister	animalmanager	Waiting for Manager

Manage Animal



Paw Pal Boston / Cat Shelter / Management Dep. / Animal Manager / animalmanager

On Going Animal

 No image

Name: Vet Feedback:

Area: Pharmacy Feedback:

Sex: Behavior Check:

Weight:

Medical Care Status:

Message	Sender	Recipient	Status
vet please	animalmanager	vet	Processed
helpoooo	animalmanager	vet	Processed

Message:

View Animal



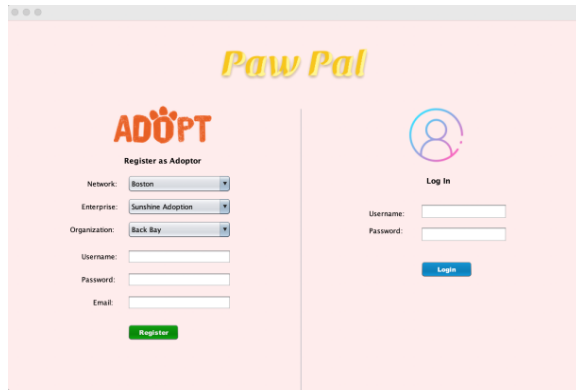
Paw Pal Boston / Cat Shelter / Management Dep. / Animal Manager / animalmanager

Adoption Request

Message	Applicant	Applicant Name	Organization	Status
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Process adoption request

Vet



Paw Pal

ADOPt

Register as Adoptor

Network:

Enterprise:

Organization:

Username:

Password:

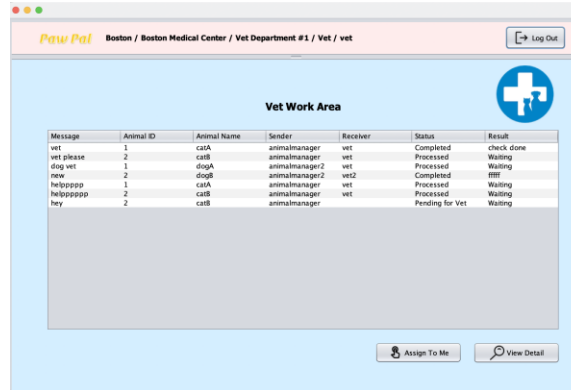
Email:

Log In

Username:

Password:

Log In

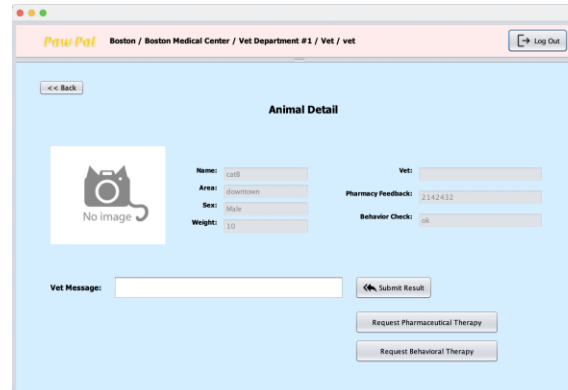


Paw Pal Boston / Boston Medical Center / Vet Department #1 / Vet / vet

Vet Work Area


Message	Animal ID	Animal Name	Sender	Receiver	Status	Result
vet	1	catA	animalmanager	vet	Completed	check done
vet please	2	catB	animalmanager	vet	Processed	Waiting
dog vet	1	dogA	animalmanager/2	vet	Processed	Waiting
new	2	dogB	animalmanager/2	vet/2	Completed	FFF
helpppppp	1	catA	animalmanager	vet	Processed	Waiting
helpppppp	2	catB	animalmanager	vet	Processed	Waiting
hey	2	catB	animalmanager	vet	Pending for Vet	Waiting

View Animal



Paw Pal Boston / Boston Medical Center / Vet Department #1 / Vet / vet

Animal Detail

 No image

Name: Vet:

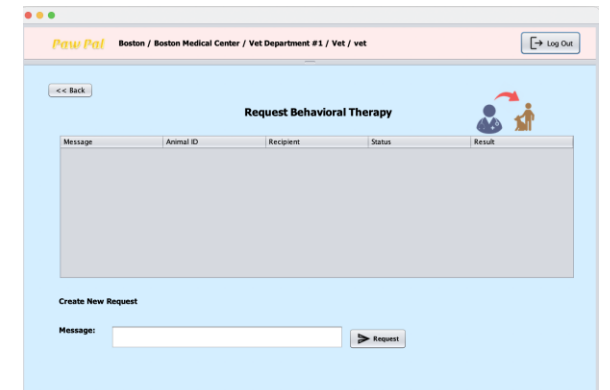
Area: Pharmacy Feedback:

Sex: Behavior Check:

Weight:

Vet Message:

View Detail



Paw Pal Boston / Boston Medical Center / Vet Department #1 / Vet / vet

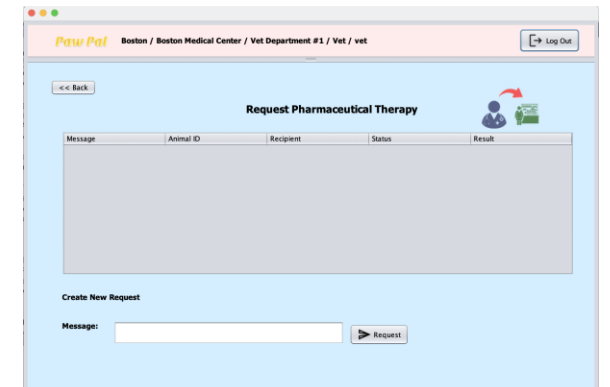
Request Behavioral Therapy

Message	Animal ID	Recipient	Status	Result
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Create New Request

Message:

Request Behavior check



Paw Pal Boston / Boston Medical Center / Vet Department #1 / Vet / vet

Request Pharmaceutical Therapy

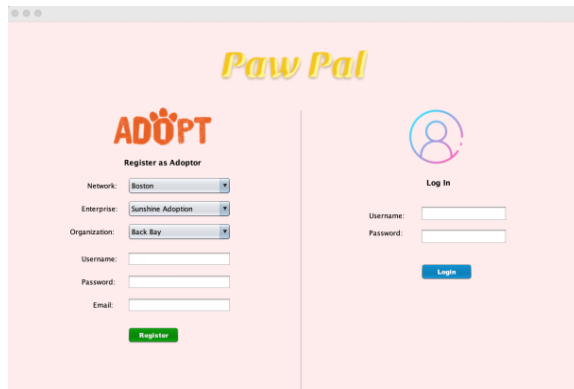
Message	Animal ID	Recipient	Status	Result
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Create New Request

Message:

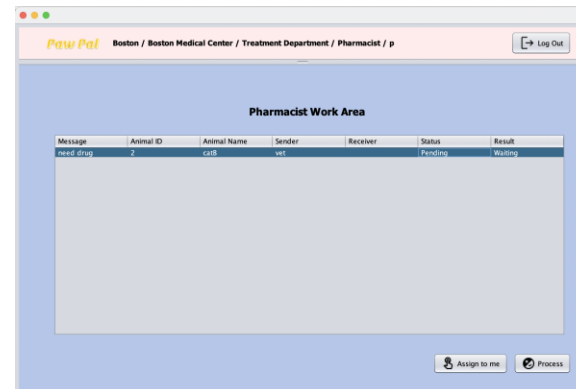
Request Pharmacy

Pharmacy



The screenshot shows the 'Paw Pal ADOPt' login and registration interface. On the left, under 'Register as Adopter', there are dropdown menus for 'Network' (Boston), 'Enterprise' (Sunshine Adoption), and 'Organization' (Back Bay), followed by input fields for 'Username', 'Password', and 'Email', and a green 'Register' button. On the right, under 'Log In', there are input fields for 'Username' and 'Password', and a blue 'Login' button.

Log In

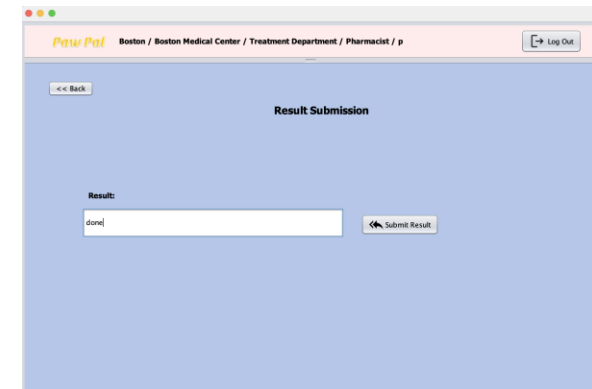


The screenshot shows the 'Pharmacist Work Area' in the Paw Pal system. The breadcrumb trail at the top reads 'Boston / Boston Medical Center / Treatment Department / Pharmacist / p'. A table displays a task:

Message	Animal ID	Animal Name	Sender	Receiver	Status	Result
need drug	2	catB	vet		Pending	Waiting

At the bottom, there are buttons for 'Assign to me' and 'Process'.

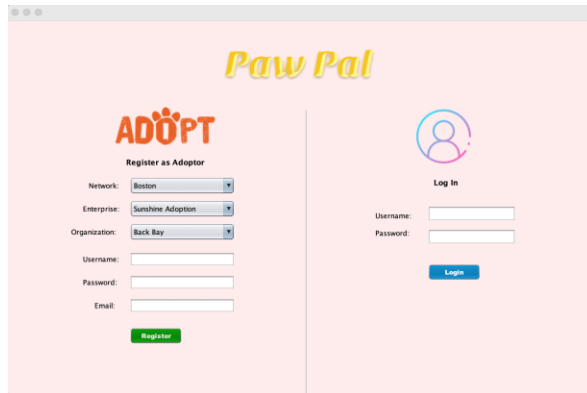
View work/
Get a task



The screenshot shows the 'Result Submission' page. It includes a '<< Back' button and a 'Result:' label above a text input field containing the word 'done'. A 'Submit Result' button is located to the right of the input field.

Process task

Behavior Therapist



The login and registration page for Paw Pal ADOPt. It features a light pink background with the Paw Pal logo at the top. On the left, there is a 'Register as Adopter' section with dropdown menus for Network (Boston), Enterprise (Sunshine Adoption), and Organization (Back Bay), followed by input fields for Username, Password, and Email, and a green 'Register' button. On the right, there is a 'Log In' section with a user icon, input fields for Username and Password, and a blue 'Login' button.

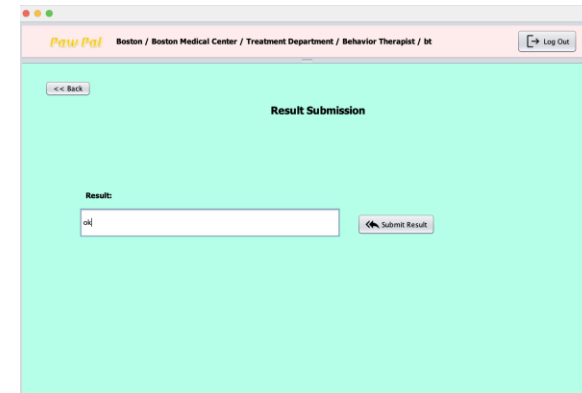
Log In



The Behavior Therapist Work Area interface. It has a light green background and a breadcrumb trail: Boston / Boston Medical Center / Treatment Department / Behavior Therapist / bt. A 'Log Out' button is in the top right. The main section is titled 'Behavior Therapist Work Area' and contains a table with columns: Message, Animal ID, Animal Name, Sender, Receiver, Status, and Result. The table has one row: 'need treatment', '2', 'catB', 'vet', 'bt', 'Processed', and 'Waiting'. Below the table are 'Assign to me' and 'Process' buttons.

Message	Animal ID	Animal Name	Sender	Receiver	Status	Result
need treatment	2	catB	vet	bt	Processed	Waiting

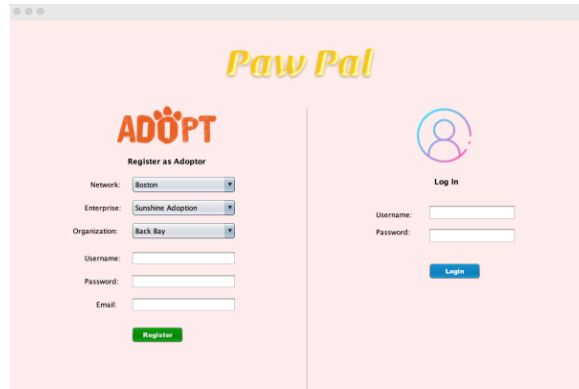
View work/
Get a task



The Result Submission page. It has a light green background and a breadcrumb trail: Boston / Boston Medical Center / Treatment Department / Behavior Therapist / bt. A 'Log Out' button is in the top right. A '<< Back' button is in the top left. The main section is titled 'Result Submission' and contains a 'Result:' label, a text input field with the value 'ok', and a 'Submit Result' button.

Process task

Volunteer Manager



The image shows a web browser window with the title "Paw Pal". The main heading is "ADOPT" in orange. Below it, there are two sections: "Register as Adopter" and "Log In". The "Register as Adopter" section has a "Network" dropdown menu set to "Boston", an "Enterprise" dropdown menu set to "Sunshine Adoption", an "Organization" dropdown menu set to "Back Bay", and input fields for "Username", "Password", and "Email". A green "Register" button is at the bottom. The "Log In" section has a user icon, input fields for "Username" and "Password", and a blue "Login" button.

Log In

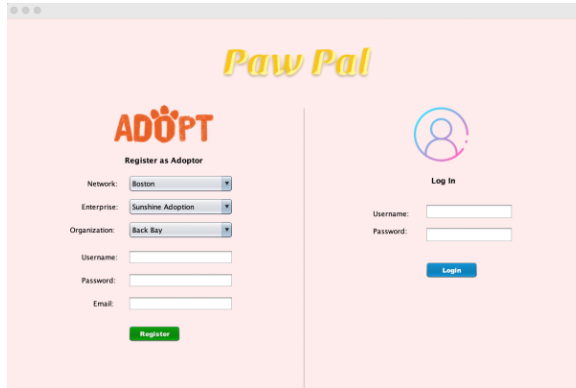


The image shows a web browser window with the title "Paw Pal". The breadcrumb navigation is "Boston / Love Volunteer Center / Volunteer Management team #1 / Volunteer Manager / volunteer...". There is a "Log Out" button. The main heading is "Assign Volunteer". Below it is a table with columns: "Message", "Sender", "Animal Shelter", "Volunteer Manager", "Volunteer Assigned", "Enterprise", and "Status". The table contains three rows of data. Below the table is a "Volunteer" dropdown menu set to "northeasternstudent" and an "Assign" button.

Message	Sender	Animal Shelter	Volunteer Manager	Volunteer Assigned	Enterprise	Status
i need help	animalregister	Cat Shelter	vm2	vol1	V2	Assigned
someone help me...	animalregister	Cat Shelter	volunteermanager	northeasternstud...	Love Volunteer Ce...	Completed
hello	animalregister2	Dog Shelter	vm2	vol2	V2	Completed
hi	animalregister2	Dog Shelter	vm2	vol2	V2	Assigned


Assigning volunteer

Volunteer



The image shows a web browser window with the title "Paw Pal" in yellow. Below the title, the word "ADOPT" is written in large, bold, orange letters. To the left of "ADOPT" is a "Register as Adoptor" form with fields for Network (Boston), Enterprise (Sunshine Adoption), Organization (Back Bay), Username, Password, and Email. A green "Register" button is at the bottom. To the right of the form is a "Log In" section with a user icon, Username, Password, and a blue "Login" button.

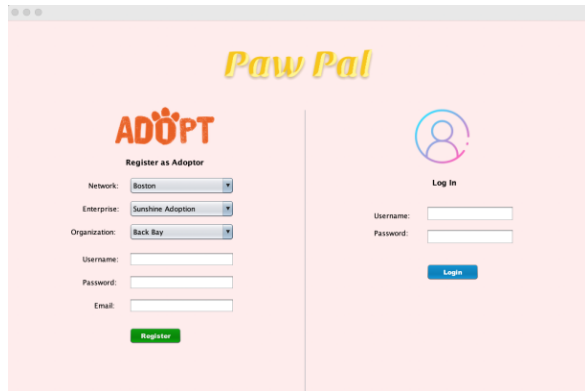
Log In



The image shows a web browser window with the title "Paw Pal" in yellow. Below the title, the text "Boston / Love Volunteer Center / Northeastern Student Volunteer / Volunteer / northeasternstudent" is displayed. A "Log Out" button is in the top right corner. The main content area is titled "Process Volunteer Request" and contains a large, empty gray box. A "Complete" button is at the bottom right.

Report completed job

Adopter



Paw Pal

ADÖPT

Register as Adopter

Network:

Enterprise:

Organization:

Username:

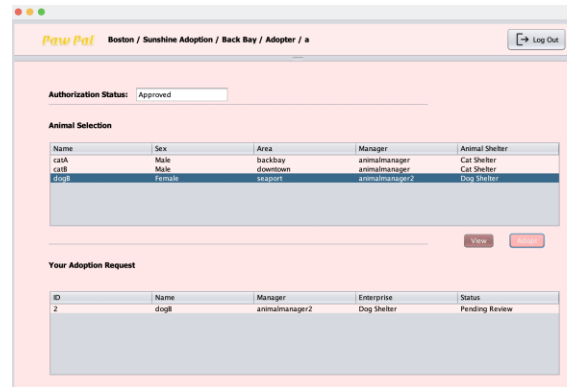
Password:

Email:

Log In

Username:

Password:



Paw Pal Boston / Sunshine Adoption / Back Bay / Adopter / a

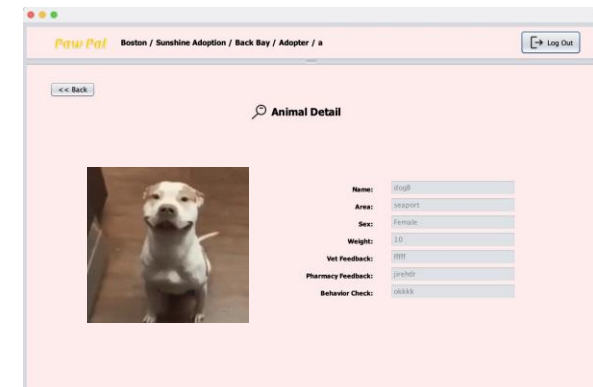
Authorization Status:

Animal Selection

Name	Sex	Area	Manager	Animal Shelter
catA	Male	backbay	animalmanager	Cat Shelter
catB	Male	downtown	animalmanager	Cat Shelter
dog1	Female	downtown	animalmanager2	Dog Shelter


Your Adoption Request

ID	Name	Manager	Enterprise	Status
2	dogB	animalmanager2	Dog Shelter	Pending Review



Paw Pal Boston / Sunshine Adoption / Back Bay / Adopter / a

Animal Detail



Name:

Area:

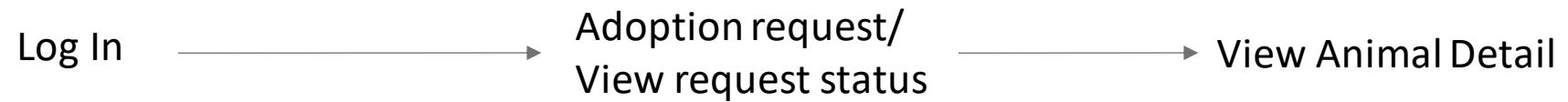
Sex:

Weight:

Vet Feedback:

Pharmacy Feedback:

Behavior Check:



Adoption Manager

The screenshot shows the 'Paw Pal ADOPT' login and registration interface. On the left, the 'Register as Adopter' section includes dropdown menus for 'Network' (Boston), 'Enterprise' (Sunshine Adoption), and 'Organization' (Back Bay), followed by input fields for 'Username', 'Password', and 'Email', and a green 'Register' button. On the right, the 'Log In' section features input fields for 'Username' and 'Password', and a blue 'Login' button.

Log In



The screenshot shows the 'Paw Pal Adopter Authorization' page. At the top, a breadcrumb trail reads 'Boston / Sunshine Adoption / Adoption Operation / Adoption Manager / adoptionmanager', with a 'Log Out' button on the right. Below the title, a table displays authorization messages:

Message	Sender	Sender Email	Organization	Receiver	Status
New User	ad	amla1111chen@gmail...	Back Bay	adoptionmanager	Approved
New User	a	esdel0207@gmail.com	Back Bay	adoptionmanager	Approved

An 'Information' dialog box is open in the foreground, displaying 'Account approved' with an 'OK' button. At the bottom right of the page are 'Assign to Me' and 'Approve' buttons.

Approve adopter

Thank You

