



PROJECT PROPOSAL

SCS2202 - Group Project 1 -
IS Group 06

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Details of Project Supervisor, Co-supervisor, Advisors, and Clients

Proposed Project Supervisor (Academic Staff of UCSC):


Name of the supervisor: Ms. JE Jayathma Chathurangani

Signature of the supervisor: 

Date: 14/08/2022

Proposed Project Co-Supervisor (Assigned by Course Coordinator):

Name of the co-supervisor : Ms. Lakshika Gamage

Signature of the co-supervisor: 

Date: 14/08/2022

The client of the Project (If applicable, otherwise supervisor will be considered as the client)

Name of the client: Ms. JE Jayathma Chathurangani

e-mail address of the contact person : ejc@ucsc.cmb.ac.lk

1. Introduction

These days, the majority of people have pets. According to the latest research, 67% (85 million) of American homes include a pet. But due to the fast pace of urban life, it's a difficult job for pet owners to have a look at every aspect of their pets' lives. Having a pet is a huge responsibility. When pet owners are traveling or migrating, they might come up with a dilemma: what should they do for their pets? And it's challenging to find a pet caretaker right away. They mostly have problems with transportation, selling their pets, and consulting a veterinarian. In addition, one of the main problems encountered by people nowadays is the lack of online and digitalized facilities and services available for their pets.

PetAssure is a system that provides almost all of the pet care services finding a pet caretaker, which has two functionalities, like finding a boarding place or a pet sitter for a specific time period; consulting a veterinarian regarding any health care issues; pet grooming service, pet selling, adopting, and pet crossing services. Through our website, users can easily get access to the above-mentioned functionalities. We are mainly focusing on 3 categories: cats, dogs, and birds. This project's expected results are that it will make a difference in society regarding the health care of pets and will promote and raise awareness about online pet care services.

2. Project Goals and Objectives

2.1. Project Goal

Our goal is to be a pet care and service website, where pet owners can find boarding, grooming, and veterinary services for their pets through our websites. Pet lovers can find these services. And if they want any services, they have to login and can book those services through our website. (Our website can get a percentage commission through the payment gateway). Overall, what we need is to create a connection between pet owners and pet lovers and pet care services. So, all the parties can benefit from each other.

2.2. Objectives of the project

- To create opportunities for pet lovers to get pet care service for their pets when they go out of station.
- To make a platform for pet lovers to buy their pets as they wish.
- To give a good home to the homeless stray dogs and cats and connect them with good-hearted people through pet adoption services.
- To give proper guidance and vet service to beginners who adopt or buy a pet.

3. Project Scope

03.1. In-Scope

- Pet owners, pet lovers, pet caretakers can register on the website and create their accounts. There is a list of registered veterinary professionals also.

Pet owners can get

- pet caretaker service when they have to go on trips or tours.
- Veterinary services that
 - Schedule appointments with your veterinarian.
 - Keep records of previous visits.
 - Pet grooming service which allows users to find saloons and grooming competitions.
 - Payment facility through a payment gateway.
 - Pet owners who are willing to migrate can send their pets to safe shelters until they are back.
 - Pet owners can rent their pets to pet lovers to play with them.
 - Pet lovers can book appointments to play with a pet who is available for rent.

03.2. Out-Scope

- Pet-related products can be directly sold through the website.

4. Project Deliverables

- Web application.
- SRS Report, design documents.
- Final project report.

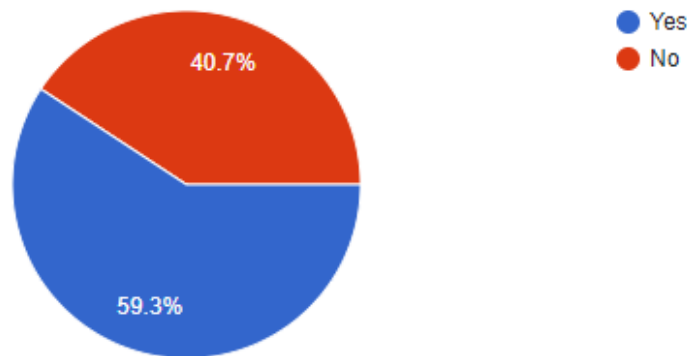
5. Project Feasibility

5.1. Social Feasibility

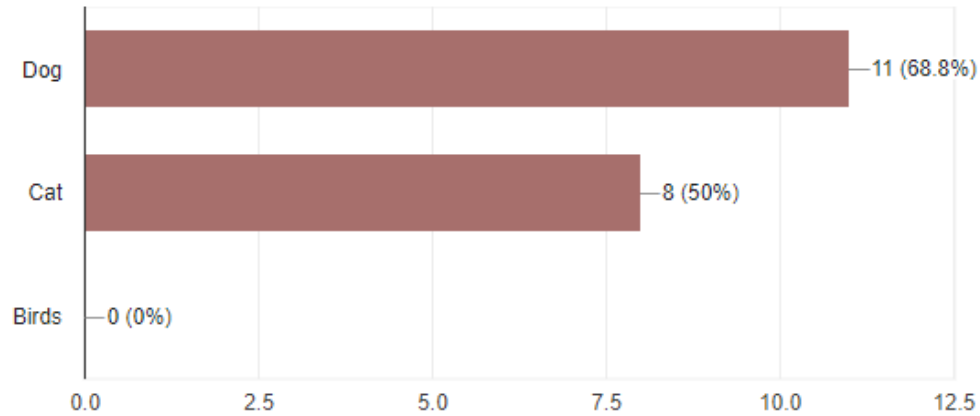
We did a social analysis to check the productivity of implementing the system. For that we asked the following questions.

- Do you have a pet?
- What kind of pet?
- How long do you spend with your pet?
- What are the struggles you have to face while taking care of a pet?
- How do you manage your pet when you're going on trips?
- How often do you take pets to the vet?
- Do you love to adopt them?
- Do you love to cuddle with someone's pet?
- How long would you love to play with them?
- Have you heard about pet grooming?

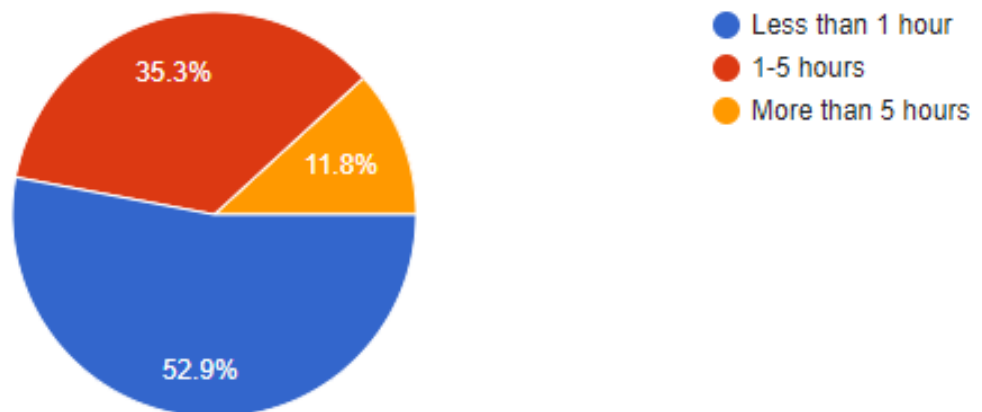
The percentage of having a pet is 59.3% So the below questionnaire is associated with a sample population of 59.3% pet owners and 40.7% of people who doesn't own a pet.



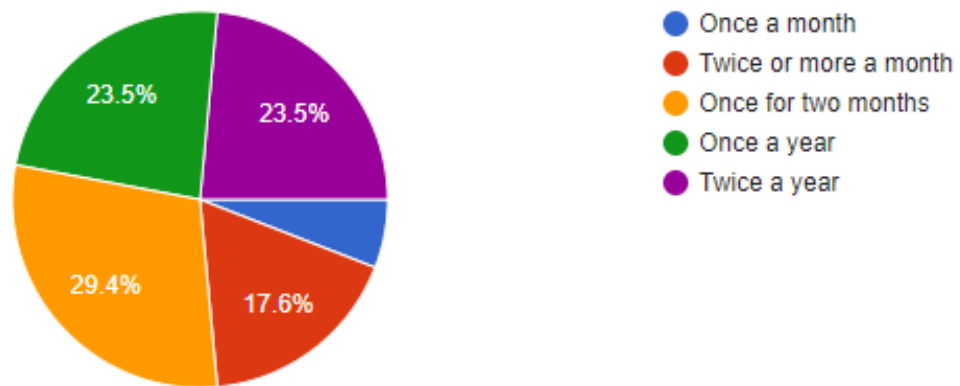
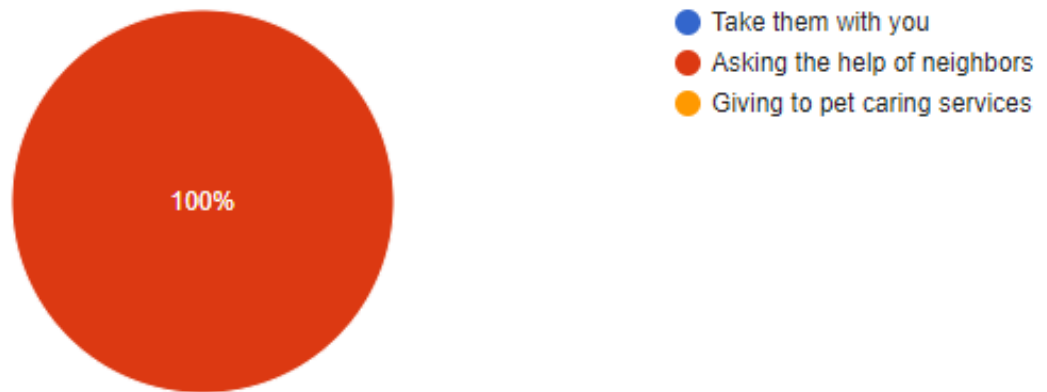
Most of the pet owners in our targeted group own dogs. Because of that, our system is mostly oriented toward dog owners. But this doesn't mean that the system is only for dog owners



Most pet owners spend about 1 hour with their pets. With the busy schedule of the owners, they do not have much time to spend with their pets. Through our system, we provide pet caretakers to spend time with pets and take care of them.

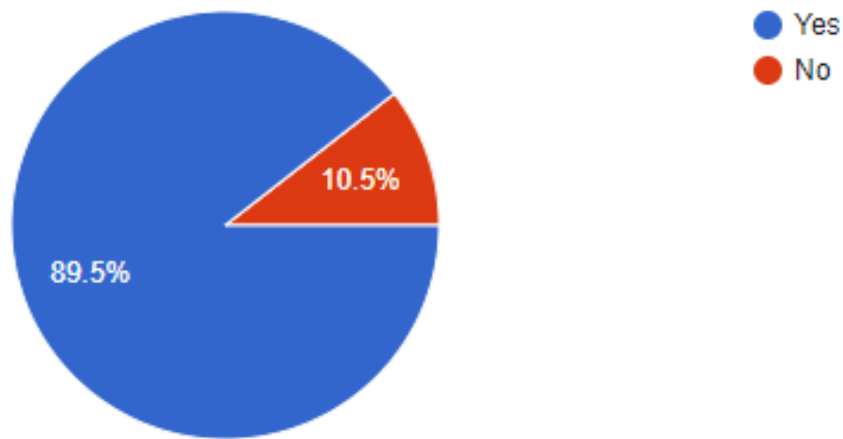


All the pet owners who participated in our feasibility study ask for the help of their neighbors when they have to go out. This might be because they don't have another choice. But if we provide them with some more choices, they would rather go for them.

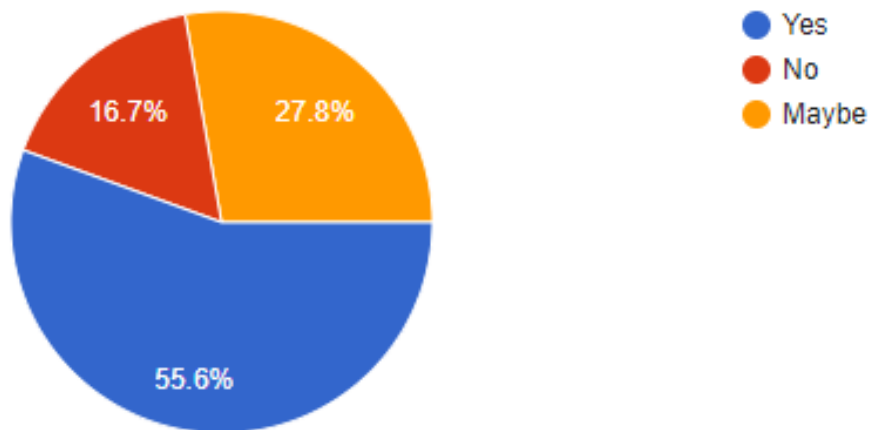


Those pet owners take their pets to the vet a few times a year. It seems the difficulty in traveling and channeling might cause this. So according to our system, we have made this easy. The owner can book an appointment with a vet according to their choice and the pet transport service takes care of the transporting difficulties.

We asked the people who don't have pets in society whether they would like to adopt a pet. Most of them like to adopt. We have made adoption easier in our system. It won't take much time to search and find the pet they like to adopt from our system.



And also the people who don't like to adopt a pet, like to cuddle with pets. Therefore we hope to provide a service to cuddle with pets even if they don't own a pet.



5.2. Technical Feasibility

Technical feasibility assessment is based on an outline design of system requirements to determine whether it has the technical expertise to handle the completion of the project.

Multiple technologies in their most recent iterations will be used to develop the proposed system's design, implementation, and operation..

- Versioning Control - Git-Hub
- Programming languages - PHP - used as the server-side scripting language for Database, session Tracking, and so on. , JavaScript
- Markup languages - HTML5 -used for web page designing
- Style Sheet Languages - CSS3 - used for describing the presentation of web pages
- Database Management System - MySQL - used for web development
- Documentation Maintaining - Google Drive
- Payment Gateway Sandbox - PayHere
- Designing tools - Draw.io, Bizagi - used for Depicting diagrams
- Project Management Tools - Jira
- Editors - Visual Studio Code - used as the source code editor and so on.
- Communication: WhatsApp, zoom

According to the Gantt Chart for the project's timeline, the project's planned schedule of 11 months is sufficient because the workload will be shared among four members and the project's scope is quite manageable within the suggested timeline.

All members of the team have prior experience working with relevant technologies, such as CSS, HTML, and JavaScript when it comes to development, but there are still some technologies that we need to learn more about. We intend to learn both independently and in groups as we work on the development. We can therefore conclude that we can develop this system with the resources we have based on our technical feasibility.

5.3. Operational Feasibility

Operational feasibility is the measure of how well a proposed system solves the problems and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

Using our system, Problems that pet owners and pet lovers frequently encounter are explored, along with relevant opportunities to demonstrate how the system's requirements can be met.

Consequently, some of the concerns of pet owners are,

- An inability to spend a significant amount of money on counseling, other veterinary services.
- Finding a single location that offers all veterinary, counseling, pet sitting, grooming, and pet-purchasing services is challenging.
- Trust problems exist in pet boarding facilities.
- Finding a pet for someone who doesn't have the ability to feed one but enjoys cuddling one for their mental health can be challenging.

The development of answers to the aforementioned issues for pet owners and pet lovers who experience challenges will be extremely beneficial to the PetAssure system. Therefore we consider this project operationally feasible.

5.4. Economic Feasibility

In order to work on this system, we have to care and think about the economical aspect of implementing the project as university students. So the costs and fees for the implementation should be considered.

1. Planning Stage

At this stage, the cost is allocated only for the papers and documentation. So that cost is bearable for university students.

2. Analyzing stage

Analyzing stage is basically, finding how the planned system practically works in society. This consists of research and gathering details. Applications and software used for this are free or open source.

3. Designing Stage

During the designing stage, the applications, and software used are free and open source. Therefore at this stage, the cost of the project is non considerable.

4. Implementation Stage

This stage includes the hosting charges. The domain we hope to have is “petassure.lk”. The domain booking cost will have to bear.

5. Maintenance Cost

This is basically for the hosting charges and renewal of the hosting license.

5.5. Legal and Ethical Feasibility

- User identity is verified at the registration while they sign-up to the website, and their details will be stored securely in the system.
- The system has the necessary safeguards to protect user privacy and personal information.
- Email addresses and phone numbers belonging to users won't be made public without their permission. Only the online advance payment option, which calls for proper permission, will require users to submit data to outside parties (third parties). Every transaction will be made through a secure connection with reliable, standardized payment processors.
- The application is built in compliance with the license of the open-source software technologies that are used.

5.6. Schedule Feasibility

The project spans a duration of 1 year, The development team is made up of four people, and to finish the project on time we have thought to distribute the man hours among our four members. Each team member will put in a minimum of 672 hours of work, totaling 2688 hours of work to finish the system by the deadline.

Estimated man hours for the project,

Working hours per week for a member = 14 hours

Number of group members = 4

Number of weeks = 48

Total man hours = $14 * 4 * 48$ hours = 2688 hours

A Gantt chart (Page No:) is created to visualize the project's timeline and highlight the intended and required deadlines, All the development procedures and times have already been planned and are attached as a Gannt chart since we expect to conclude this project within a year, and we will be able to do so by June 2023.

6. Project Constraints and Assumptions

- Users have to decide whether they are the client or service provider
- Users cannot change the type of the account after the registration.
- user cant get refund when they post an wrong add for pet sale, pet crossing and pet transport
- the admin can remove the posts and users if they make a threat to our system.

Assumptions

- Every user can only have either an account as a service provider or a client, but not both.
- The NIC number, emails, phone numbers of users might change, so users will update those details.
- Service providers usually check the emails and the appointments
- Projects which are completed will be deleted from the system after some time.
- service providers will get their total monthly payment from the financial sector externally.
- The transport service, pet sellers , pet buyers will post the ad and manage their clients as their own risk

7. Requirements.

7.1. Functional Requirements.

There are 6 types of users for our system

1. Client
2. Pet care takers.
3. Veterinarian.
4. Pet Transport service.
5. pet grooming service.
6. Admin.

All users of our system can login and logout (People can login to our system using a registration process and a verification process). And they will be able to customize their profiles and change their passwords.

1. Client

- Shall be able to get a pet caretaker.
- Shall be able to get grooming service.
- Shall be able to consult a veterinarian.
- Shall be able to get Transport service.
- Shall be able to sell, rent ,buy and adopt pets.
- Shall be able to use pet crossing service.
- Shall be able to book appointments.
- Shall be able to cancel appointments.
- Shall be able to check appointments.
- Shall be able to make payments.
- Shall be able to use chat functionality.
- Shall be able to post advertisements regarding pet selling, renting, and crossing.
- Shall be able to request the admin to delete the account.

2. Pet care takers.

Pet care takers can be divided into two functionalities.

2.1. Shelter caretakers.

- Shall be able to add, delete, update shelter(cage) availability.
- Shall be able to check appointments.
- Shall be able to cancel appointments.
- Shall be able to use chat functionality.
- Shall be able to request the admin to delete the account.

2.2. Pet sitters.

- Shall be able to add, delete, update slots.
- Shall be able to check appointments.
- Shall be able to cancel appointments.
- Shall be able to request the admin to delete the account.
- Shall be able to use chat functionality.

3. Veterinarian.

- Shall be able to add, delete, update slots.
- Shall be able to check appointments.
- Shall be able to cancel appointments.
- Shall be able to use chat functionality.
- Shall be able to request the admin to delete the account.
- Shall be able to use chat functionality.

4. Pet Transport service.

- Shall be able to add, delete, update slots.
- Shall be able to check appointments.

PetAssure

- Shall be able to cancel appointments.
- Shall be able to use chat functionality.
- Shall be able to request the admin to delete the account..

5. Pet grooming service.

- Shall be able to add, delete, update slots.
- Shall be able to check appointments.
- Shall be able to cancel appointments.
- Shall be able to request the admin to delete the account.
- Shall be able to use chat functionality.

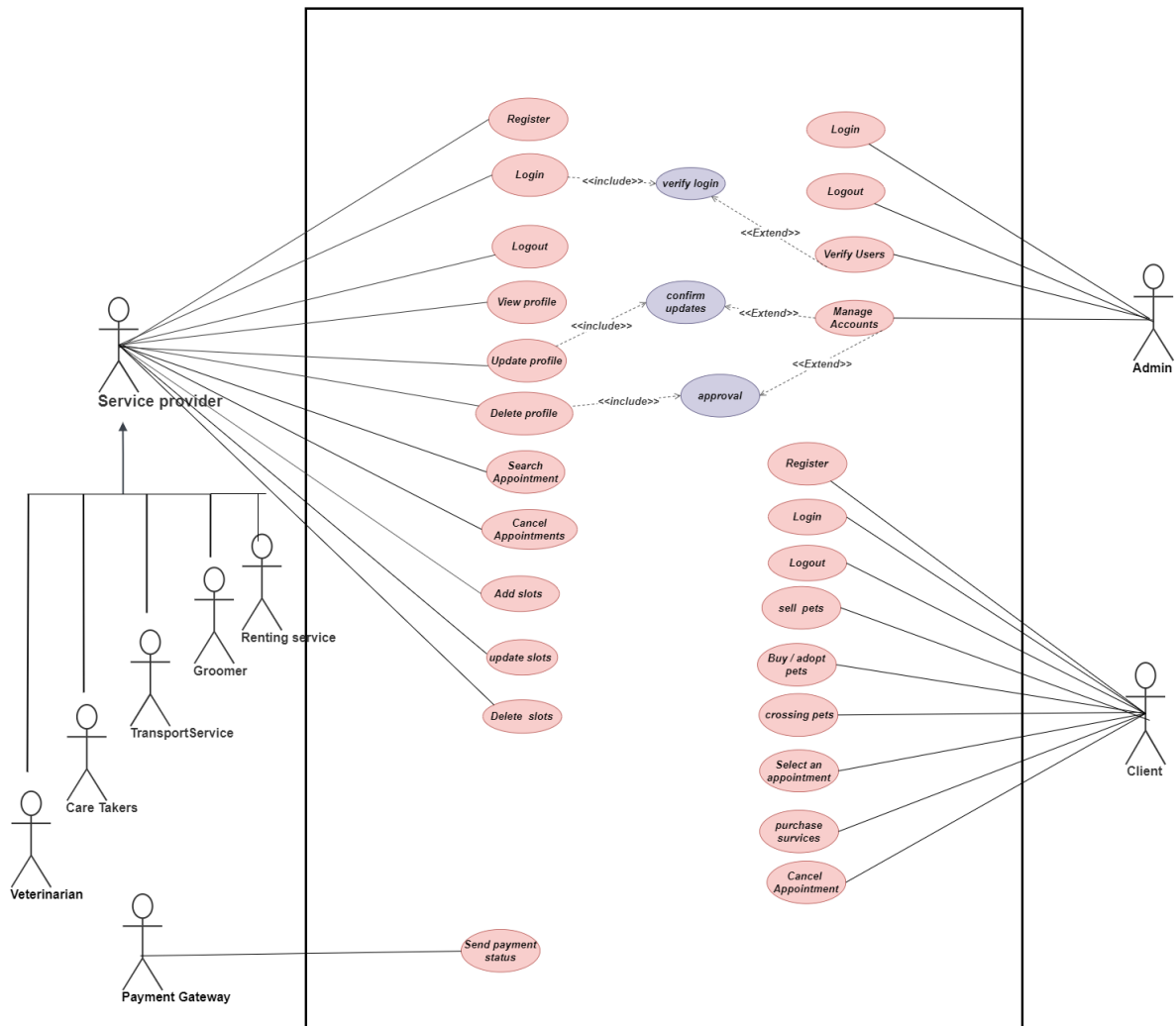
6. Pet renting service.

- Shall be able to add, delete, update slots.
- Shall be able to check appointments.
- Shall be able to cancel appointments.
- Shall be able to request the admin to delete the account.
- Shall be able to use chat functionality.

6. Admin.

- Shall be able to verify users.
- Shall be able to manage accounts.
- Shall be able to delete accounts on request.

Use Case Diagram



7.2. Quality Attributes Requirements.

7.2.1 Availability

As our system is a web-based application, the availability of the system is high with time and the area. We try our best to make sure the services are provided within 24 hours while considering the availability of service providers.

7.2.2 Testability

We tend to test the system with a selected group of pet lovers in the university and develop the system with their feedback.

7.2.3 Usability

- The interface of the PetAssure is very user-friendly and doesn't need much technological experience to use it.
- Navigation path is very clear for all.
- Search option is given for easy access.
- Menu and submenus are clearly titled with an icon.

7.2.4 Reliability and performance

- A computer system must be trustworthy and consistently deliver reliable results.
- The information of users will be safeguarded in our system.
- Sensitive information won't be disclosed to outside parties, and only people with permission will have access to user information.
- Any request will receive a quicker response. A suitable progress indicator must be present when an asynchronous task is being carried out.
- Information of the users is protected.
- No third-party access to the database of user details.
- All logins are authorized.
- Payment details are privacy protected.

7.2.5 Security

- The logging procedure will be protected. Users must use their unique username and password to log in to the system; otherwise, access will be denied. User logins will be used to verify users.
- There is a security policy for passwords in our PetAssure system.
- Since registration is required for full functionality, our system is not accessible to visitors.
- Secured payment methods will be used for online transactions.

7.2.6 User Friendliness

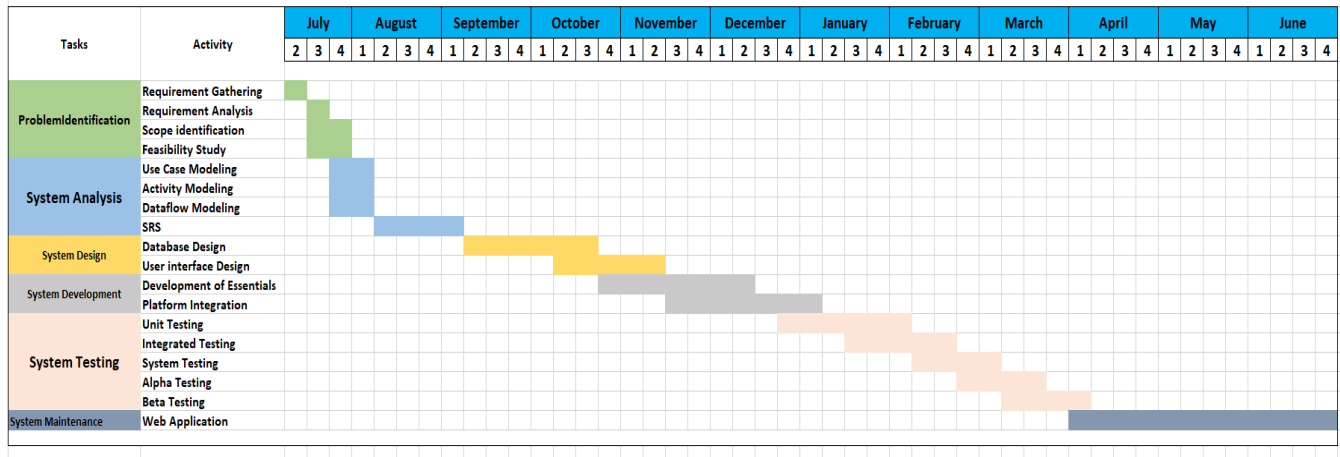
- Our system is simpler and faster, and it is more user-friendly the more the user comprehends how to use it.
- Users won't need lengthy instructions or manuals to use the system; all it takes is a few clicks. The software is extendable and customizable to achieve this.
- The user can customize the application to suit their needs.
Instead of seeing IT-oriented words and concepts, users can see familiar ones.

8. Technologies to be used

- Versioning Control
 - Git-Hub
- Programming languages
 - PHP
 - Javascript
- Markup languages
 - HTML5
- Style Sheet Languages
 - CSS3
- Database Management System
 - MySQL
- Documentation Maintaining
 - Google Drive
 - Grammarly
- Editors
 - Visual Studio Code
- Designing tools
 - Draw.io
- Web Server
 - Apache Web Server
- Project Management Tools
 - Jira
- Payment Gateway Sandbox
 - PayHere

9. Project timeline

The project spans a total duration of 12 months - till the completion of the academic year. We are modeling our development process using the Agile principles and practices will be adapted for the development of this project. However the timeline has been adjusted to meet the academic milestones set by the Project Examination Board.



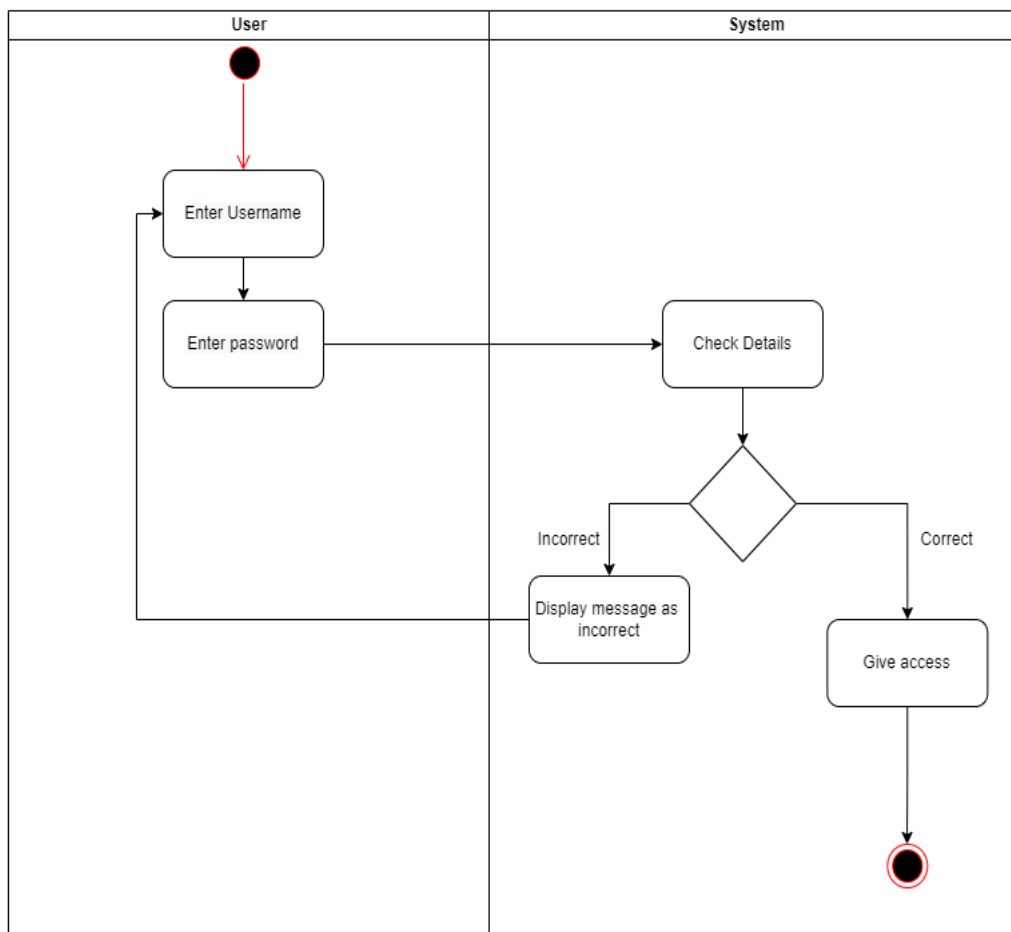
10. Declaration

We as members of the project titled PetAssure, Certify that we will carry out this project according to the guidelines provided by the coordinators and supervisors of the course as well as that we will not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any university. To the best of our knowledge and brief, the project work will not contain any material previously published or written by another person or ourselves except where due reference is made in the text of appropriate places.

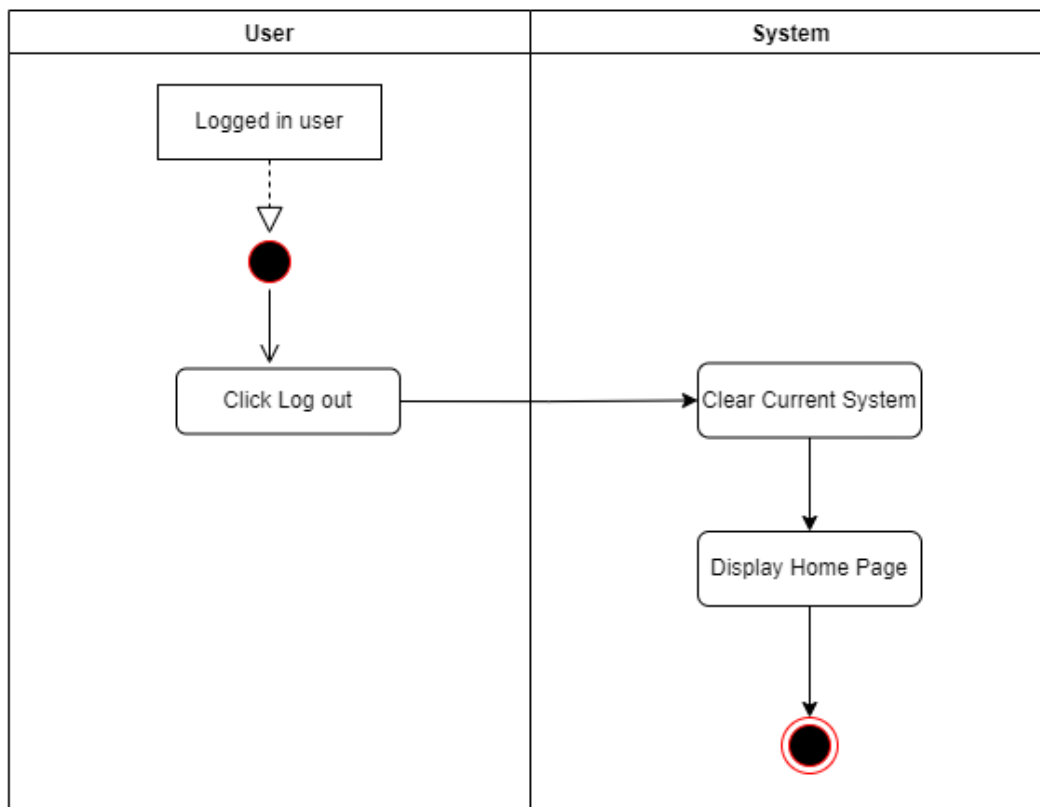
11. Appendices

Activity Diagrams

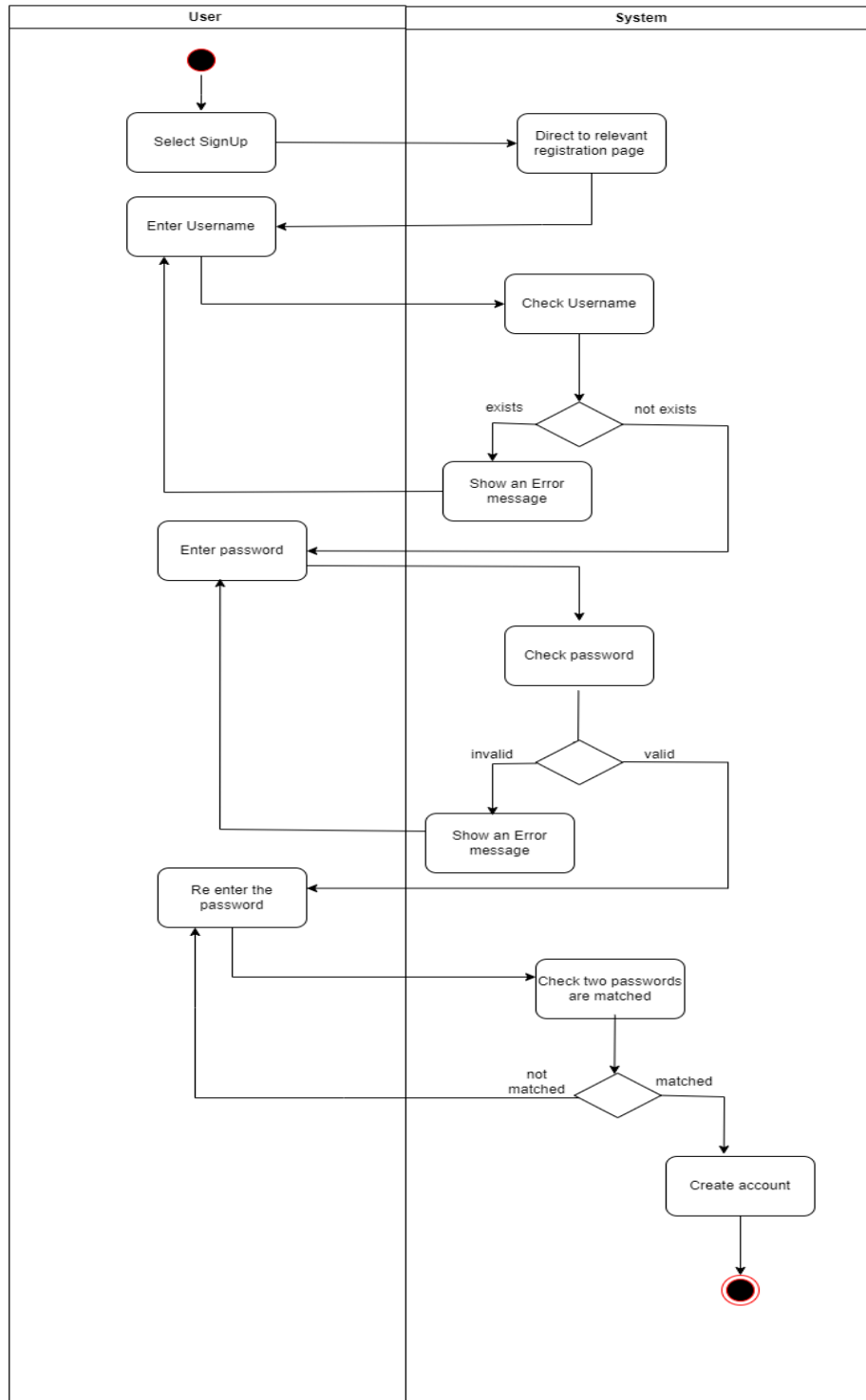
Login



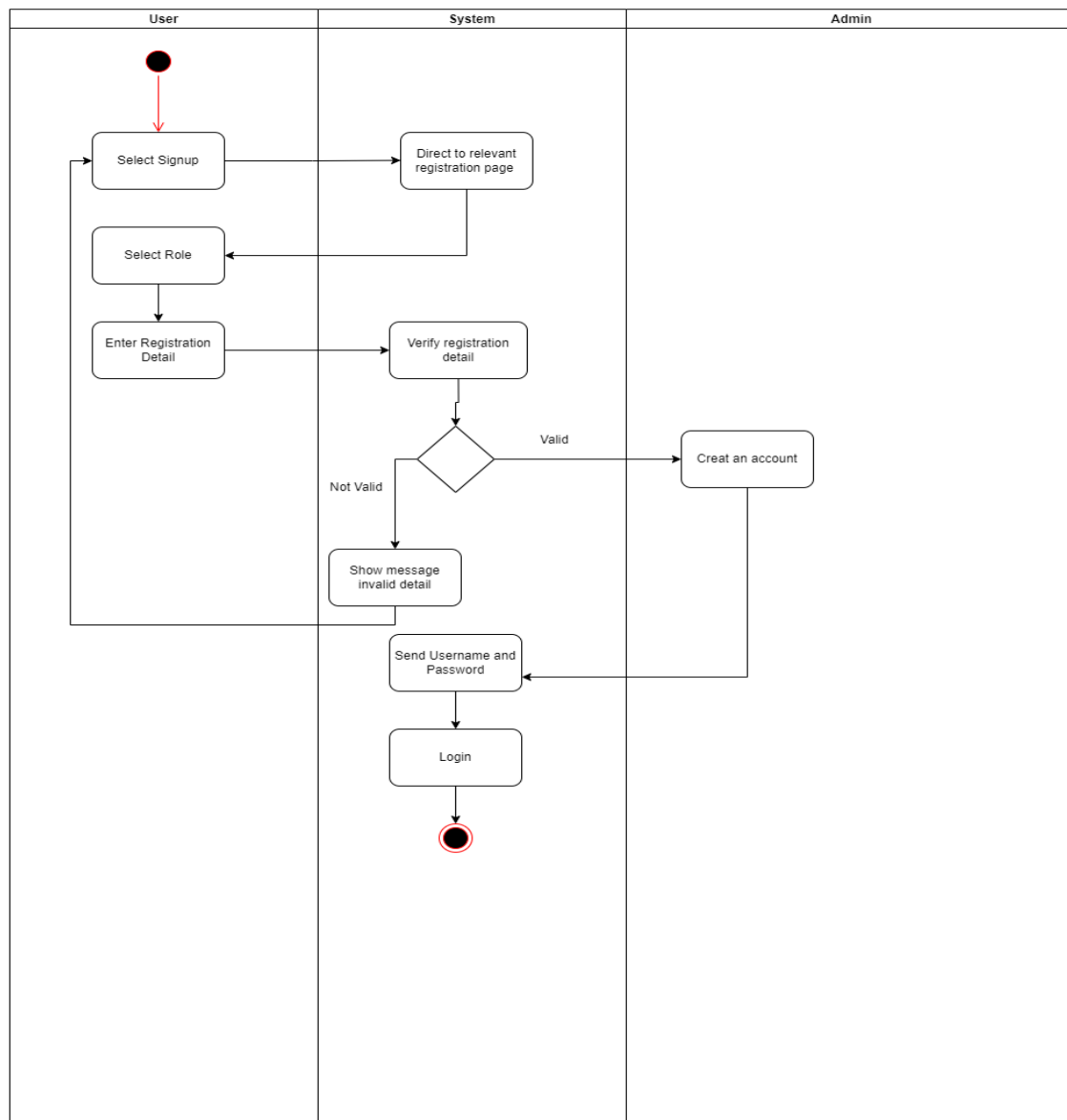
Logout



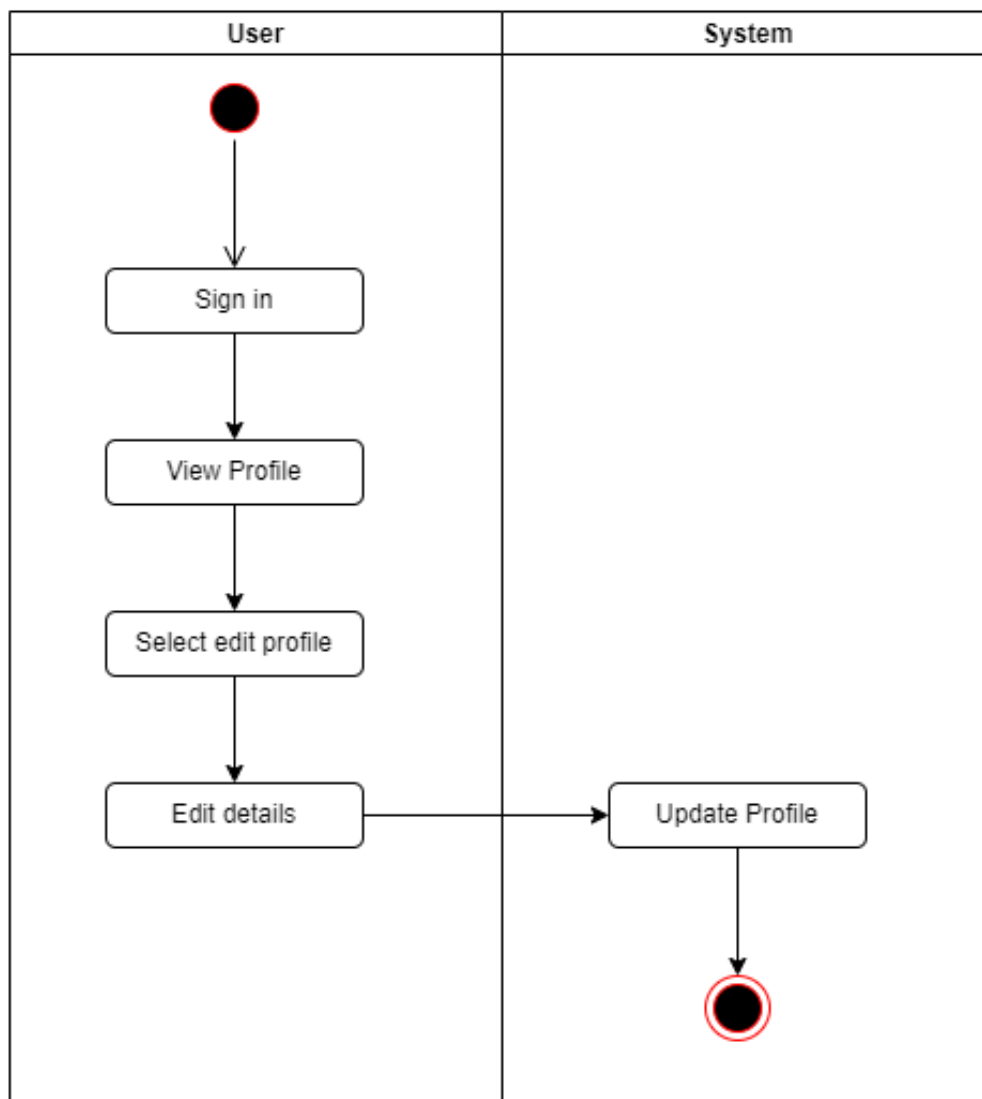
Register as a Customer



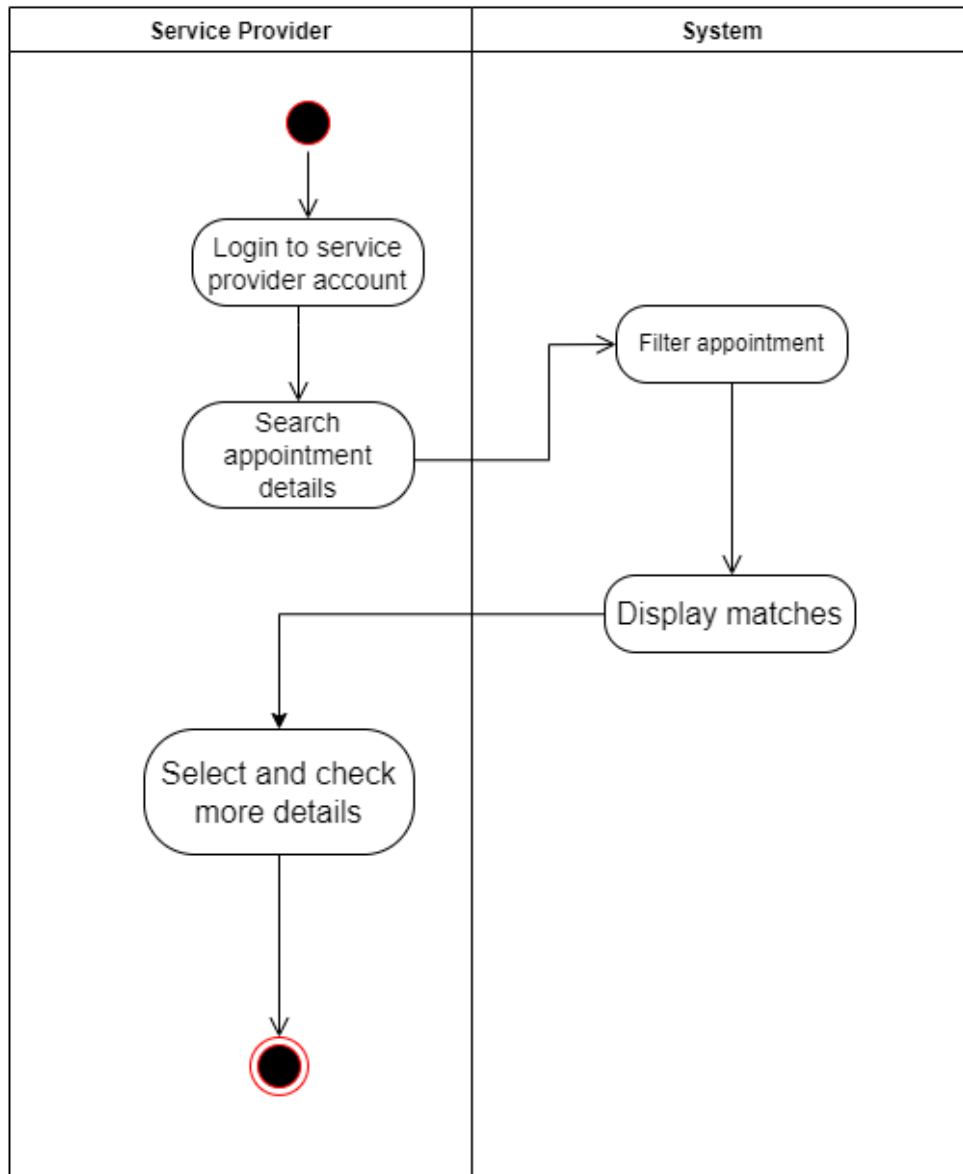
Register as a Service Provider



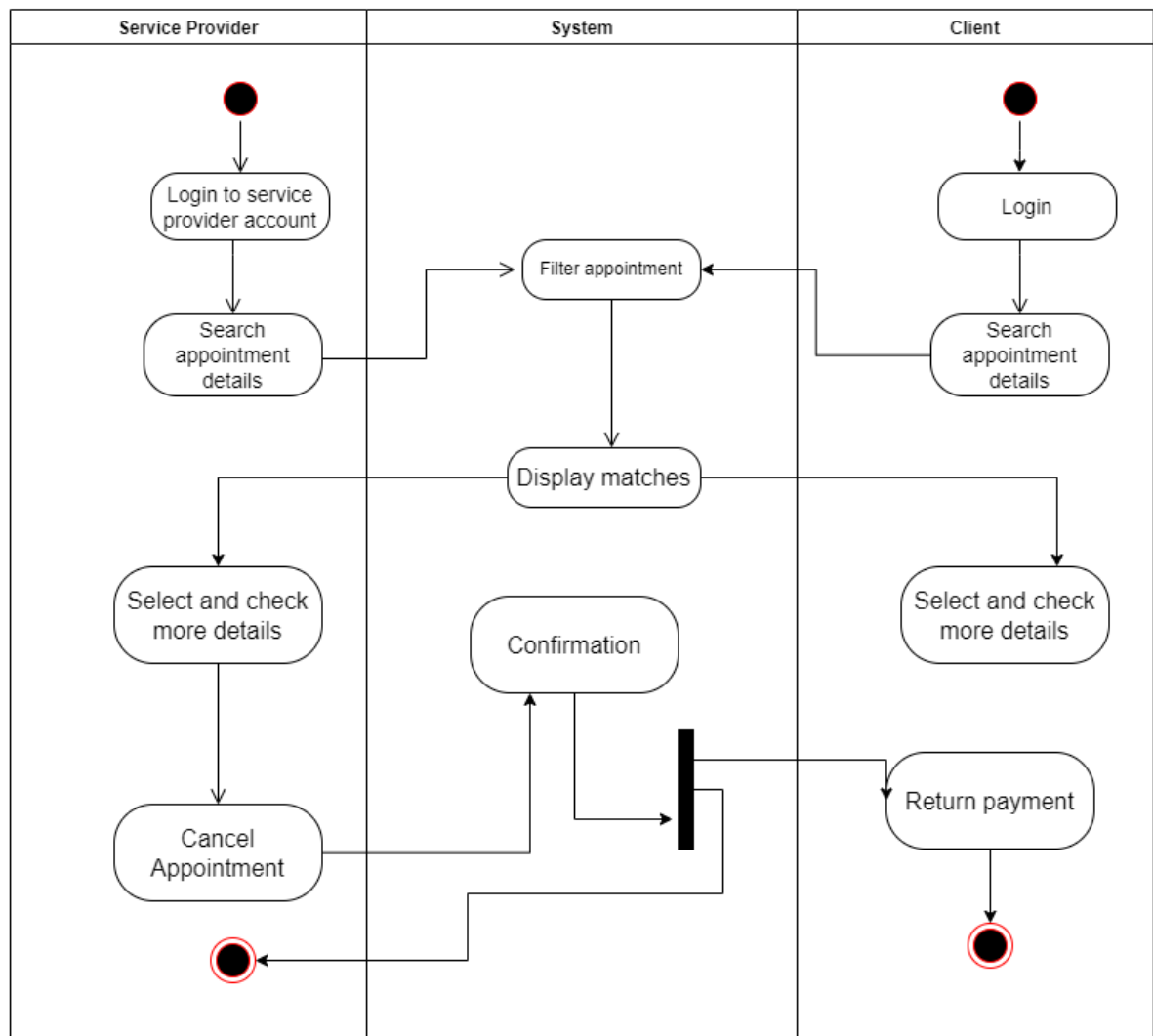
View and Update User Profile



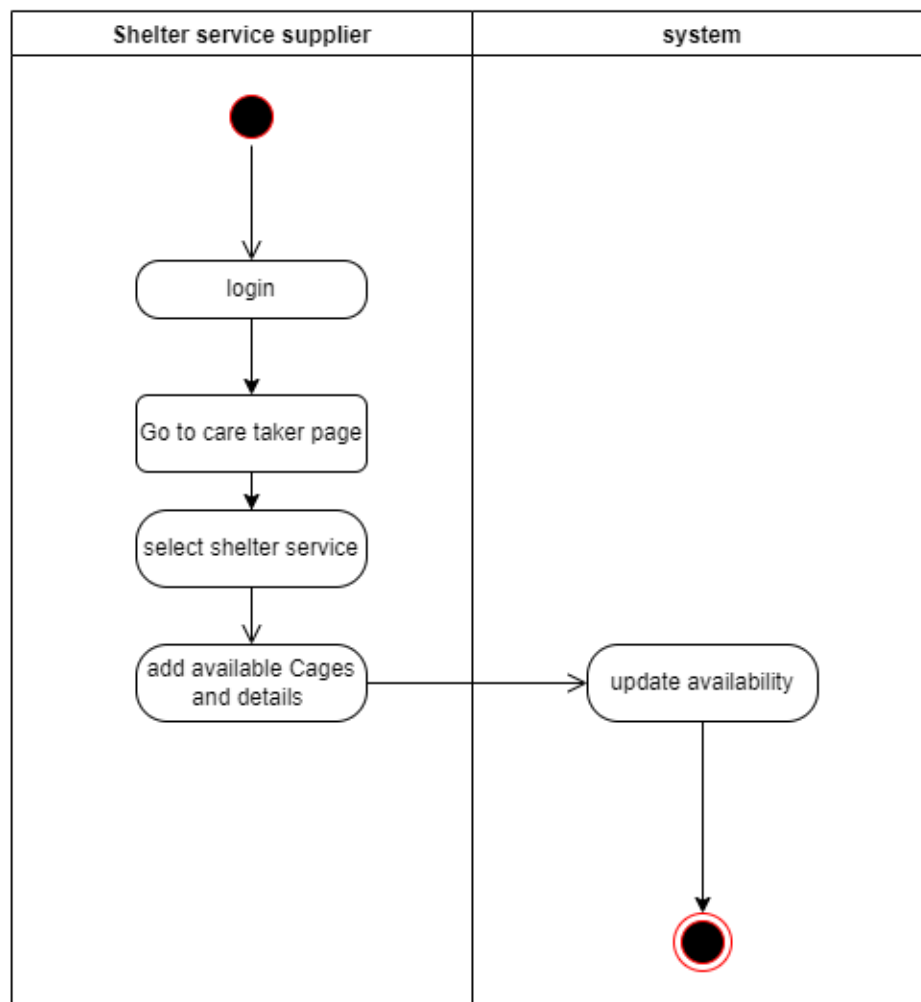
Search Appointments



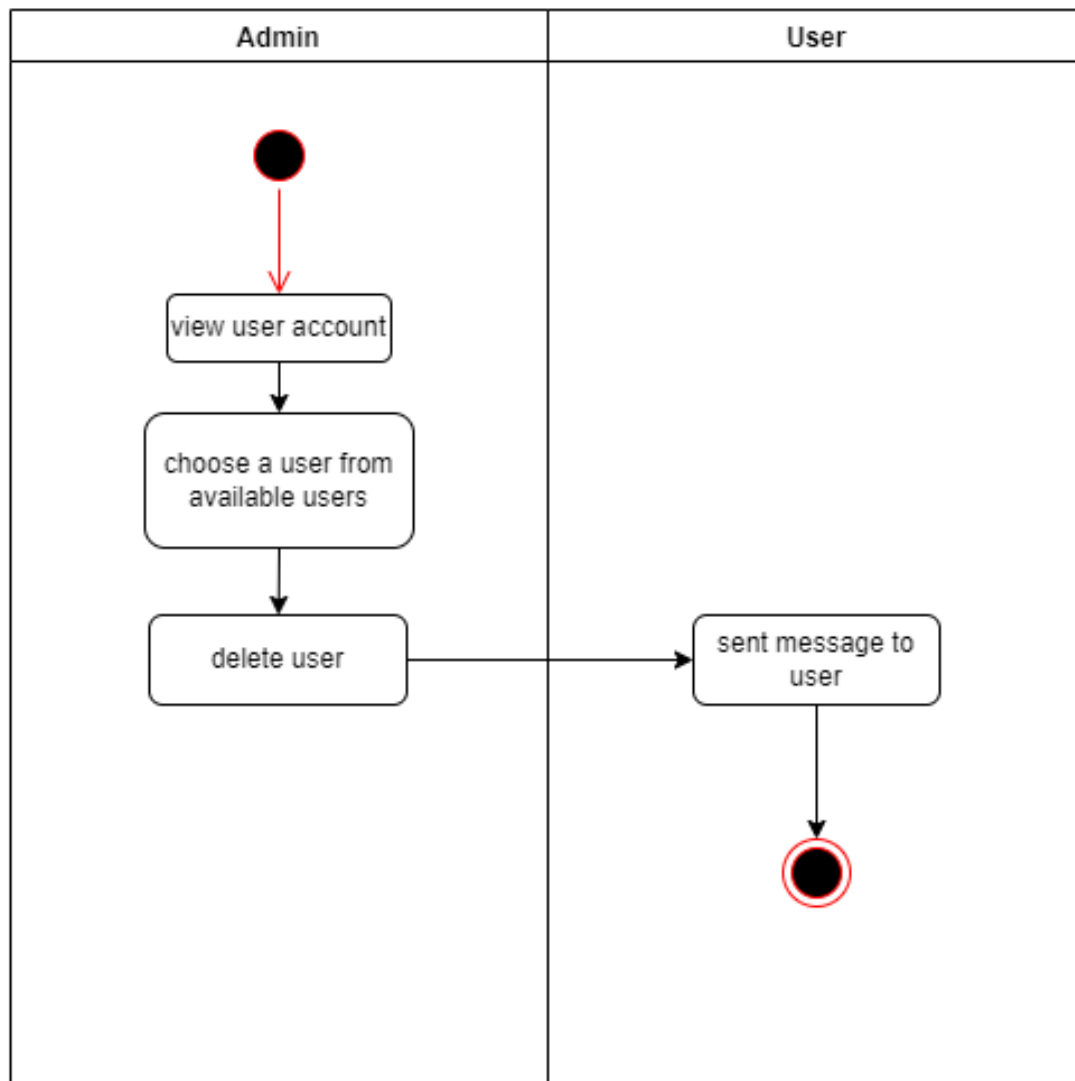
Cancel Appointments



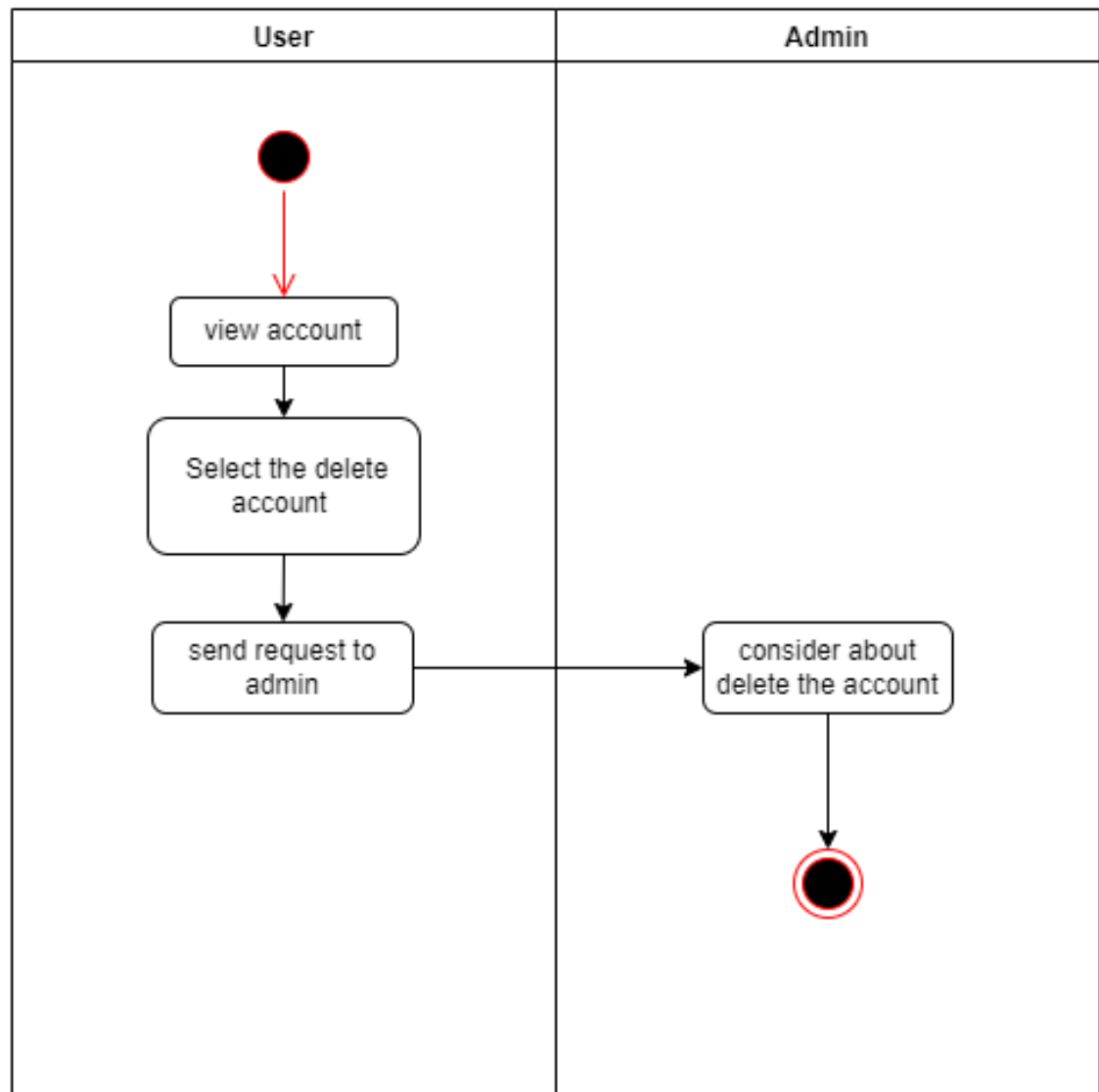
Update Shelter Availability



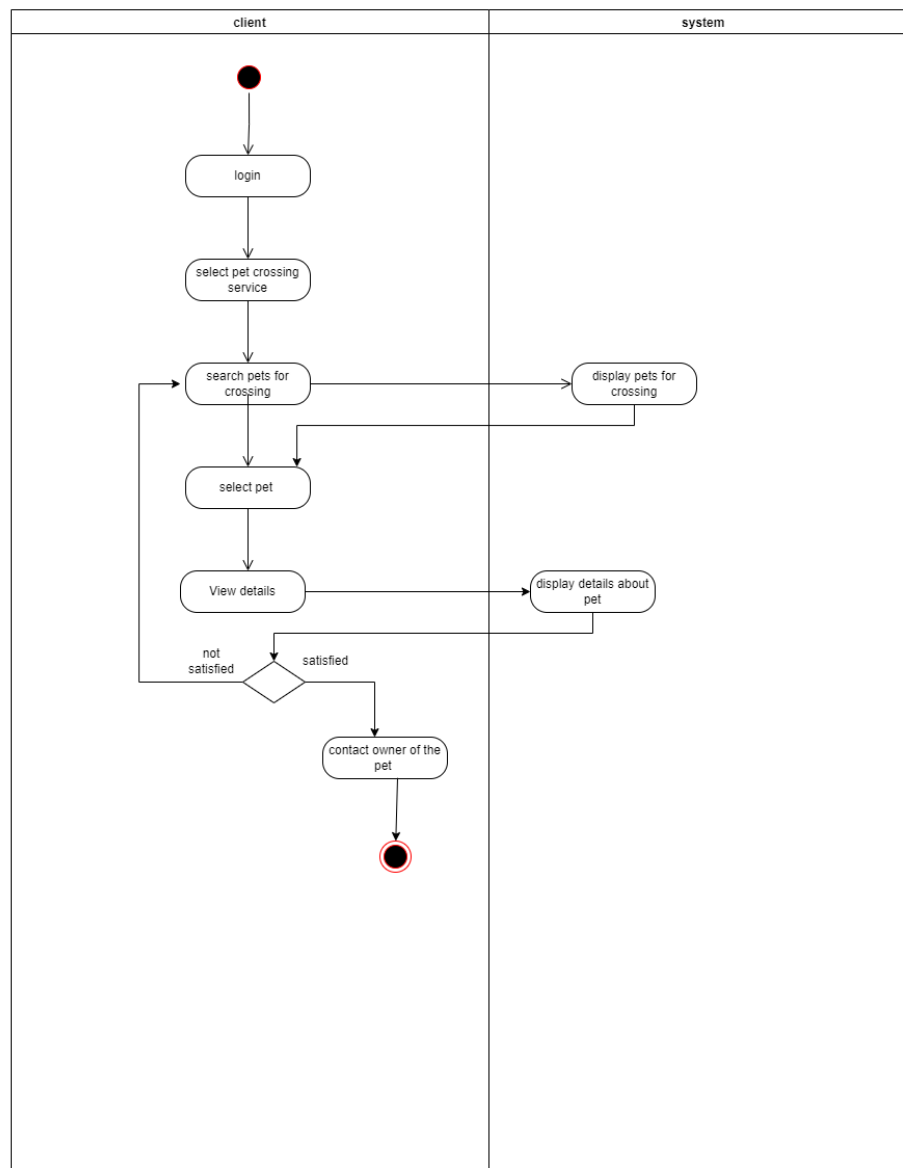
Manage User Accounts



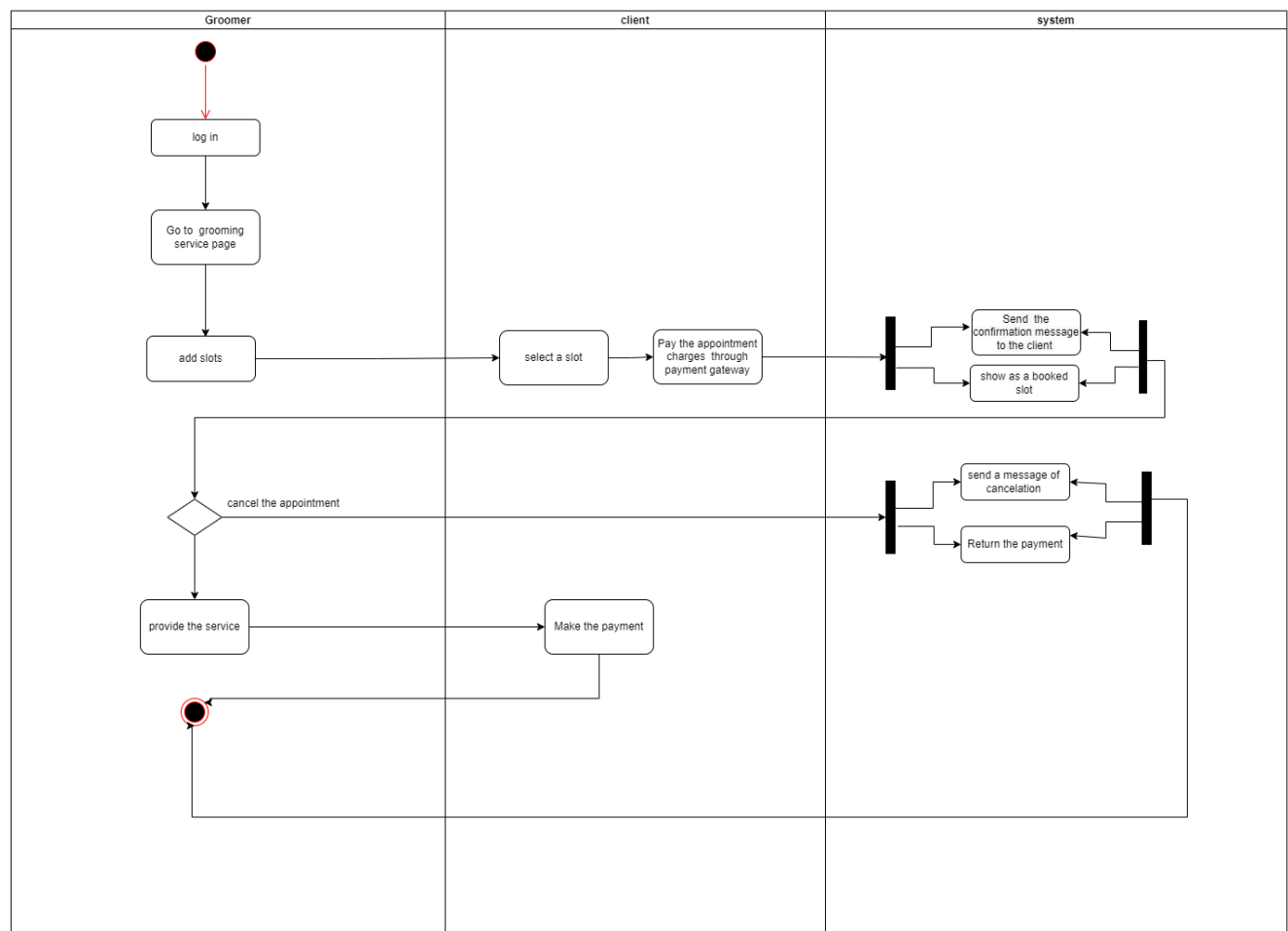
Delete Account



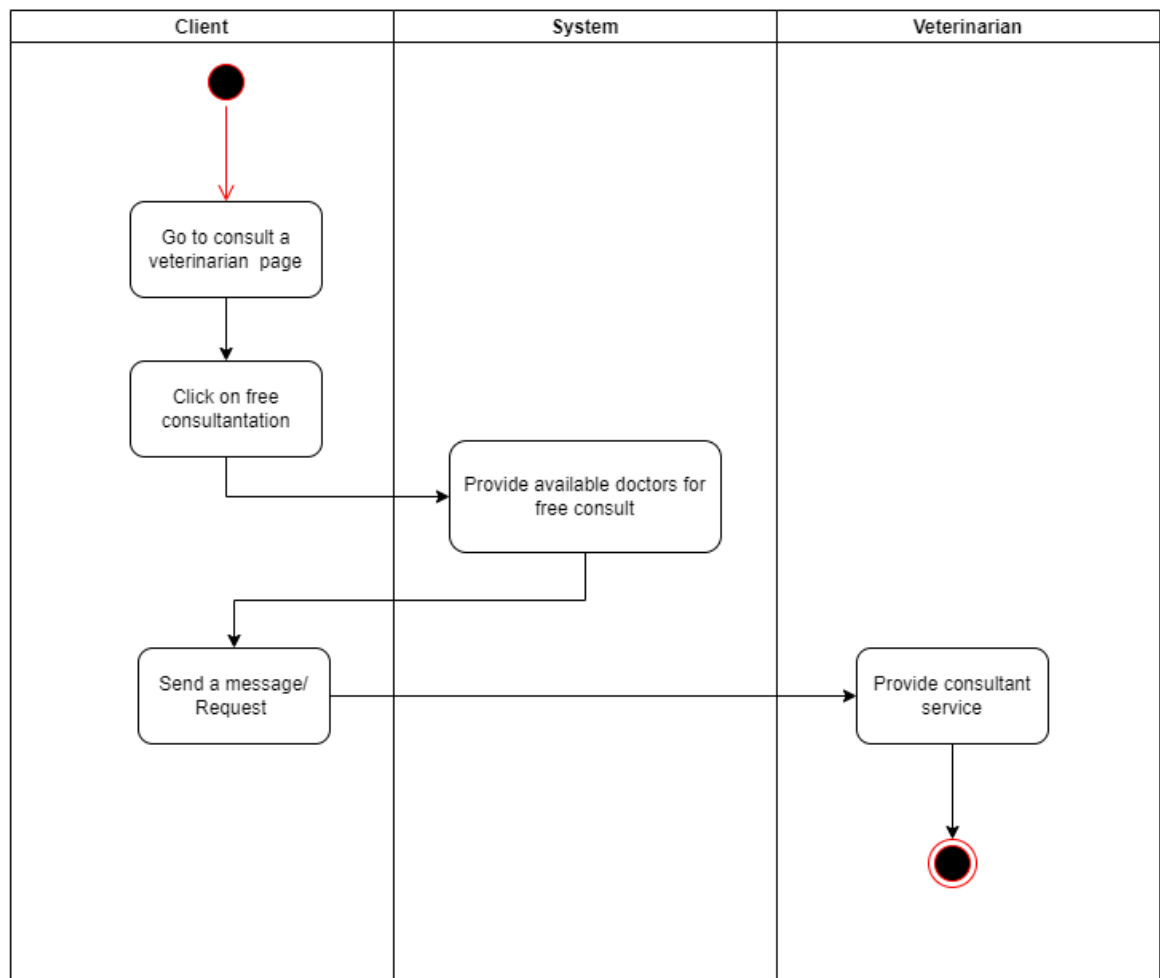
Pet crossing Service



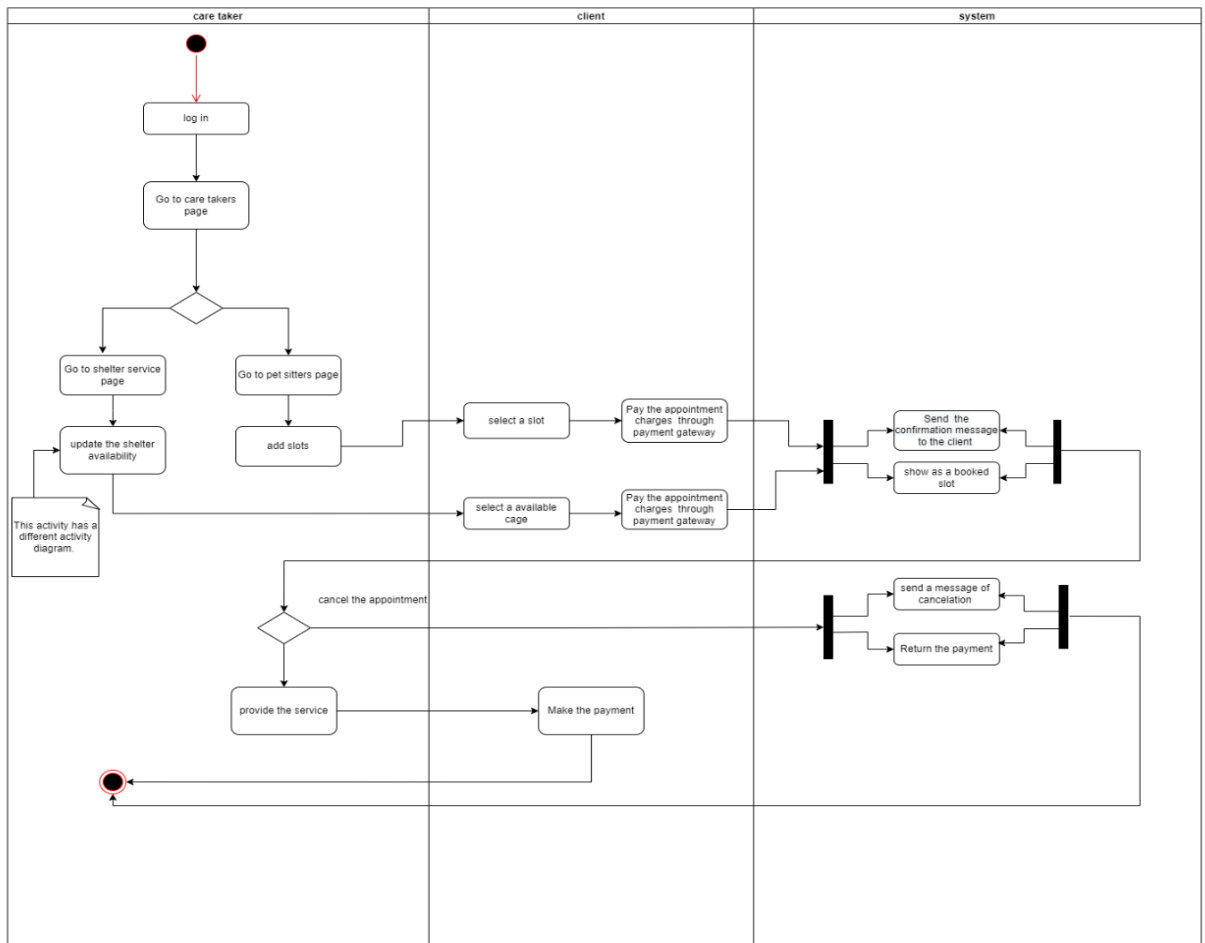
Grooming Service



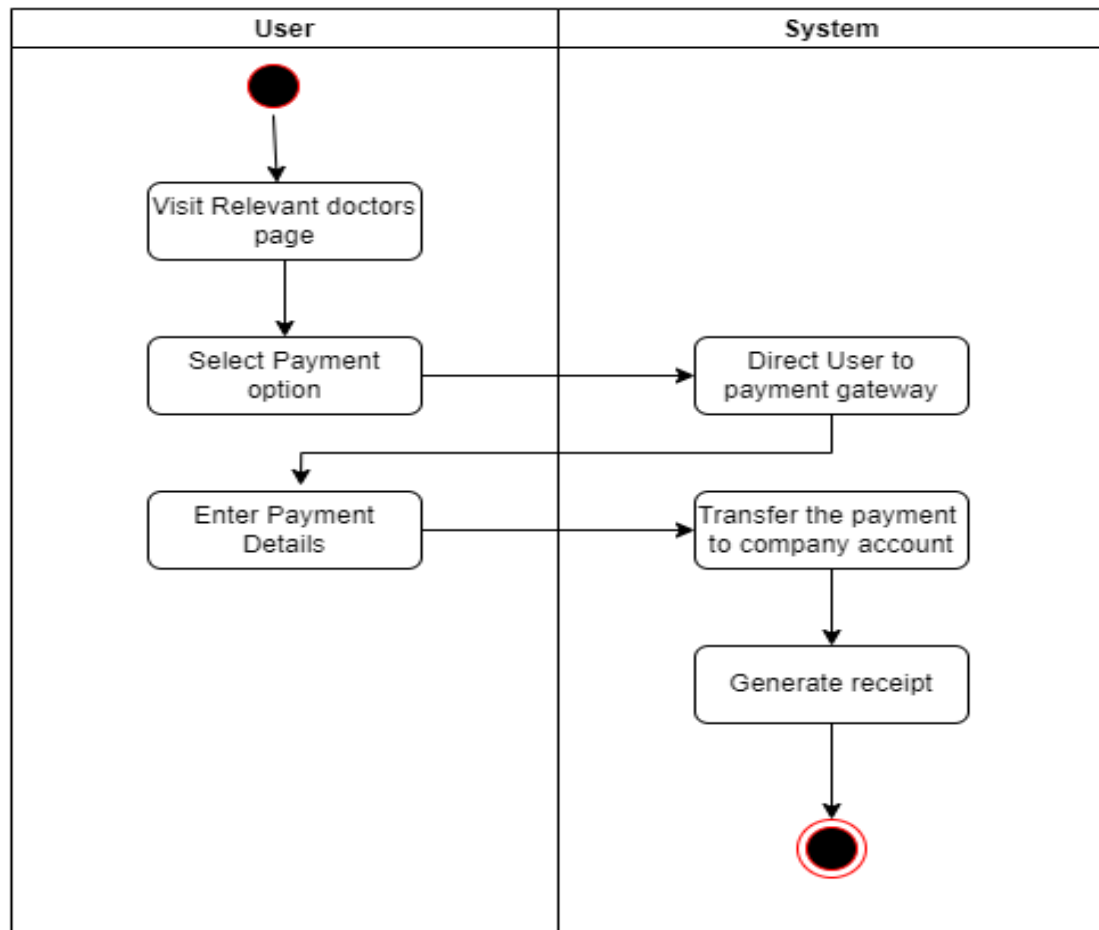
Get free Veterinarian Consultant Service



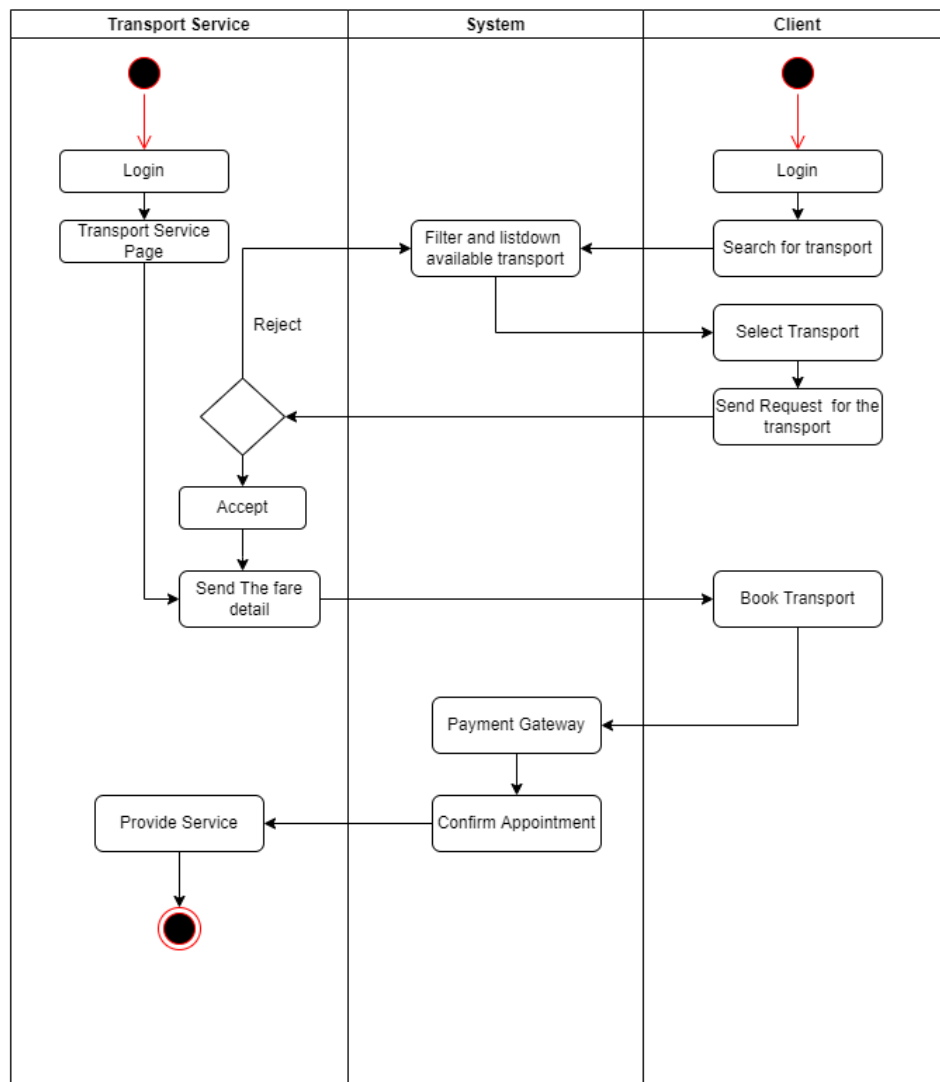
Caretaker Service



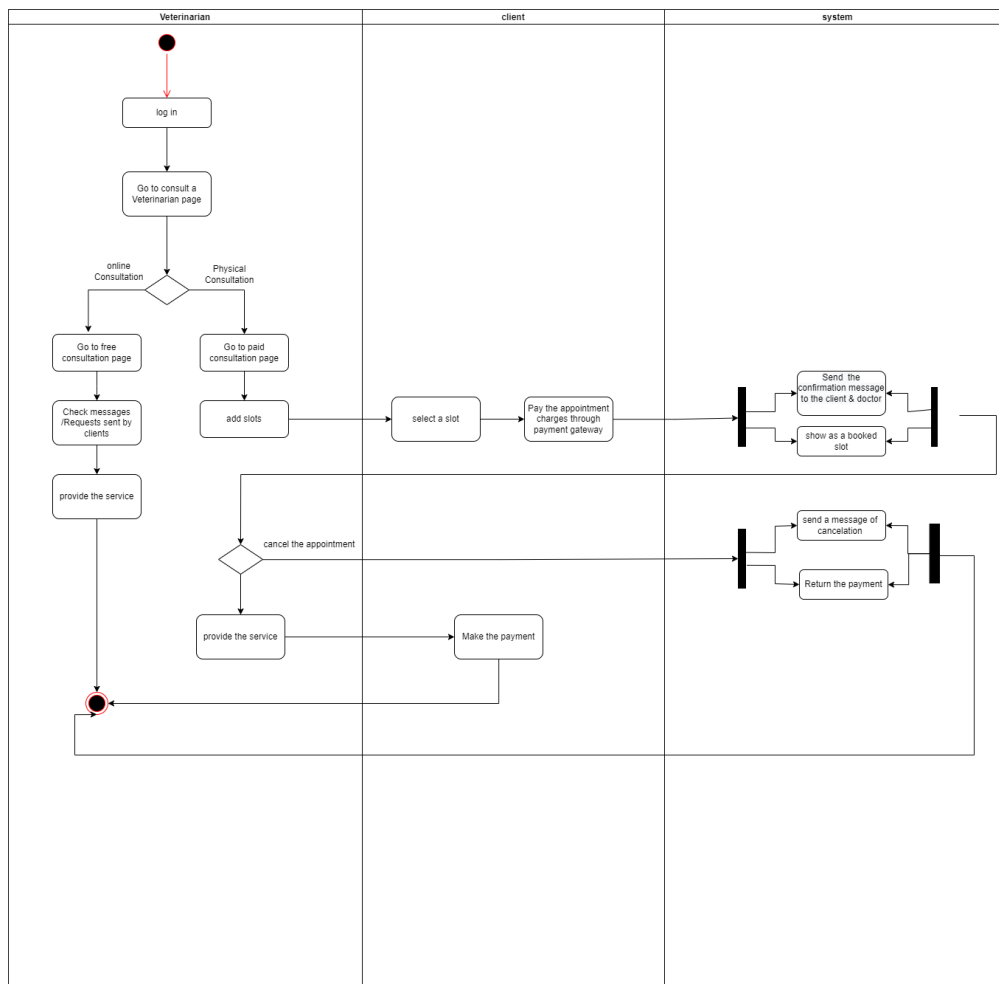
Payment for Service Provider

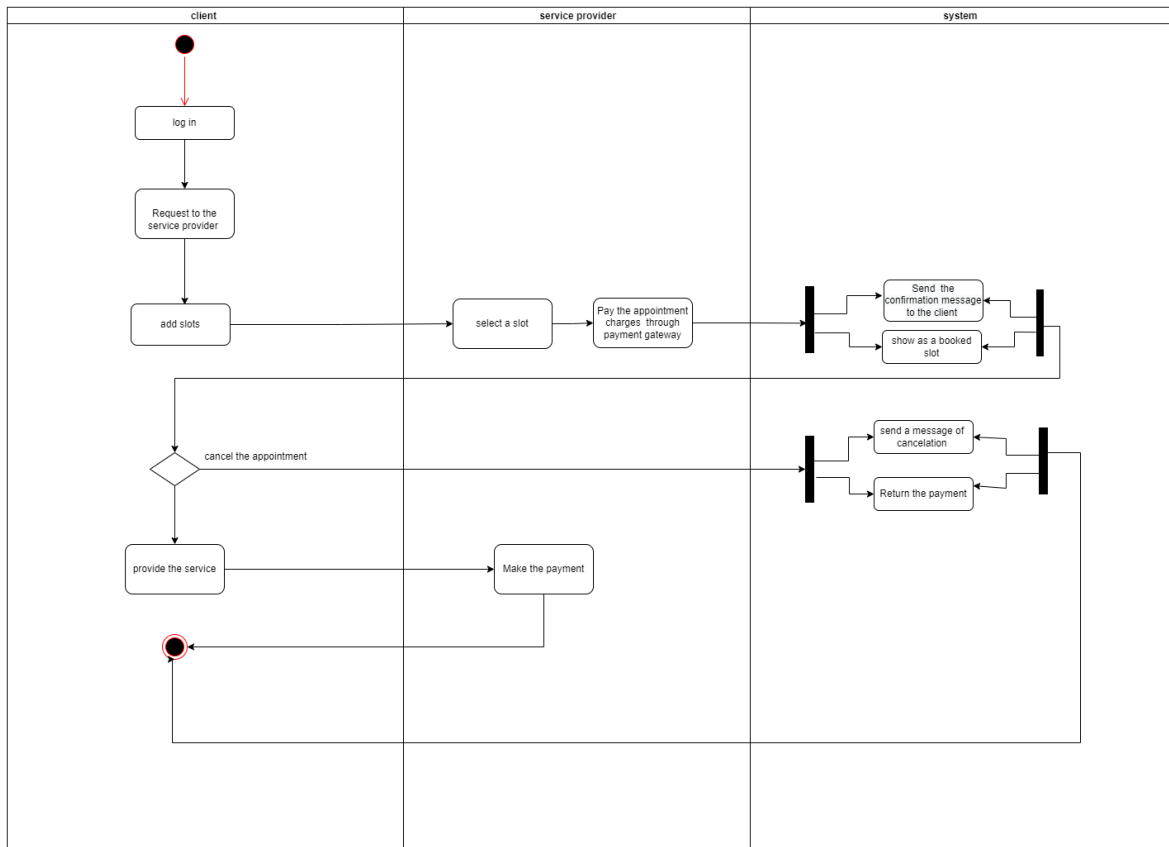


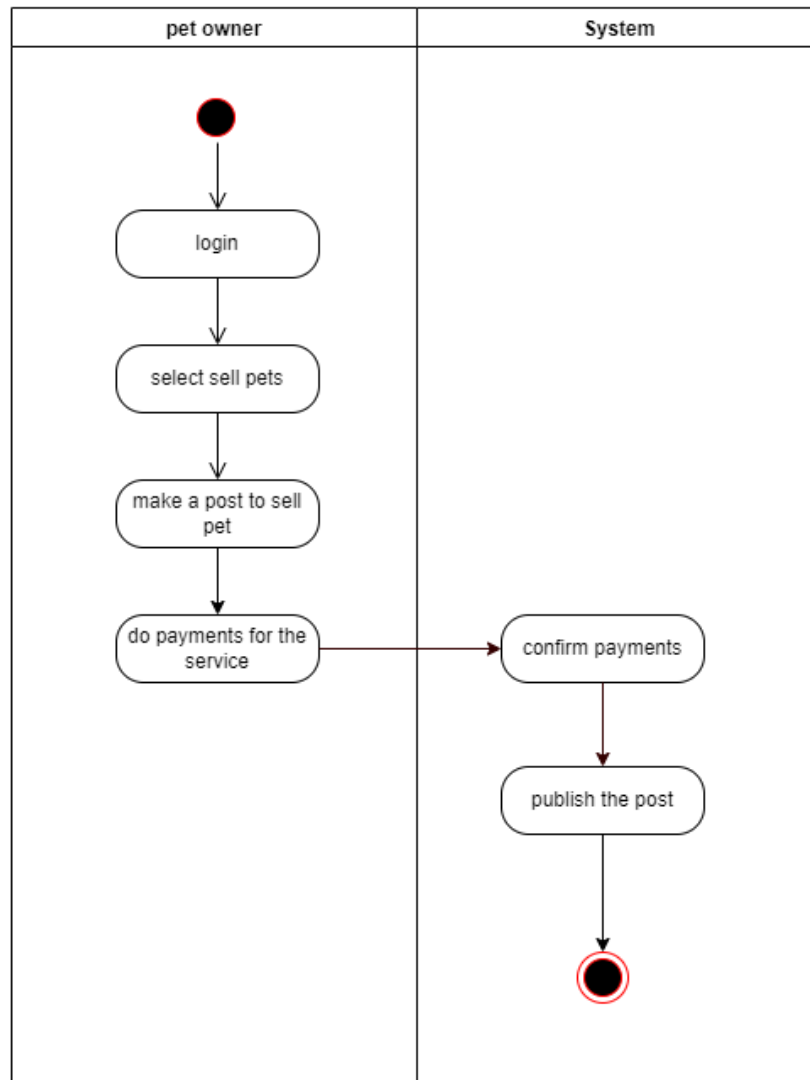
Transport Service



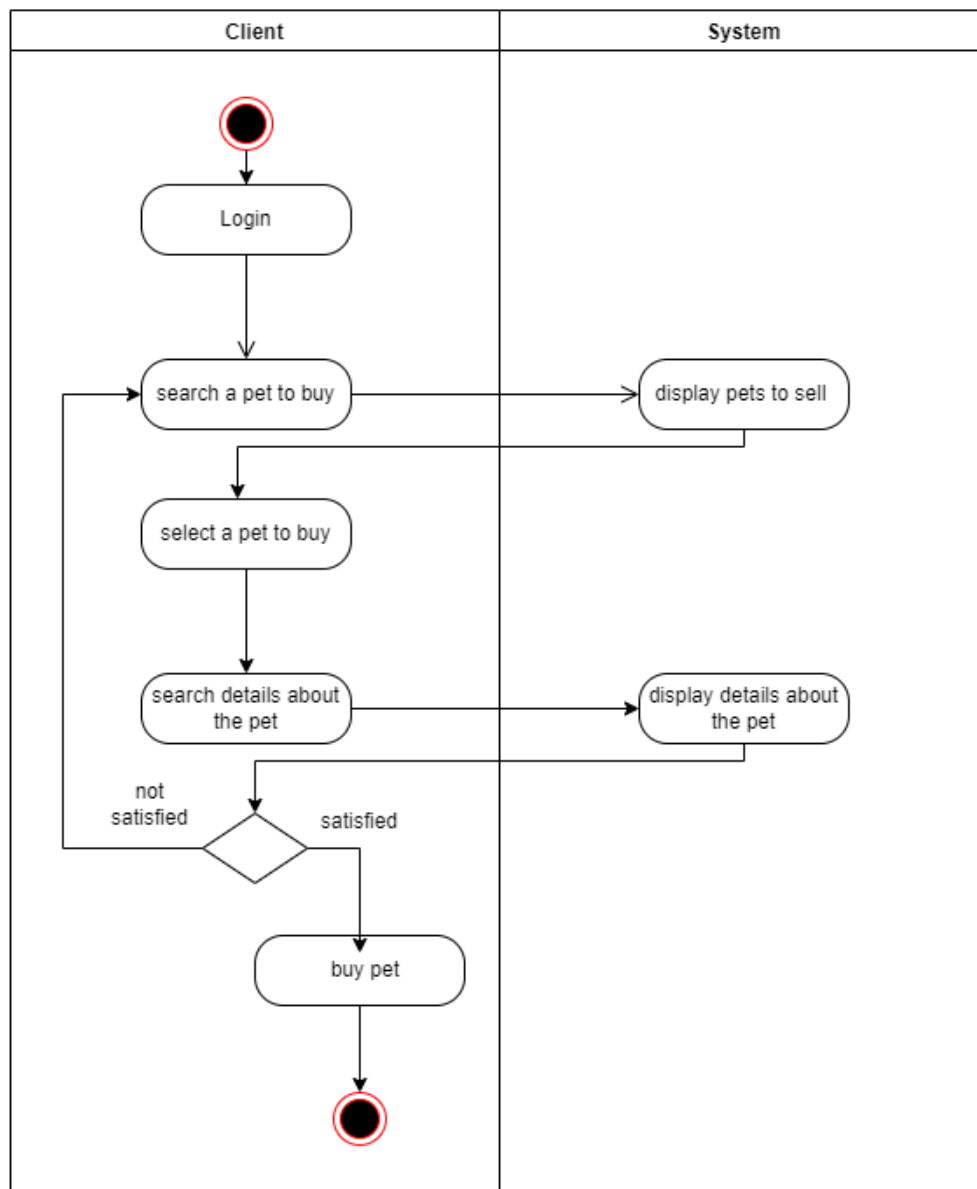
Veterinarian Service

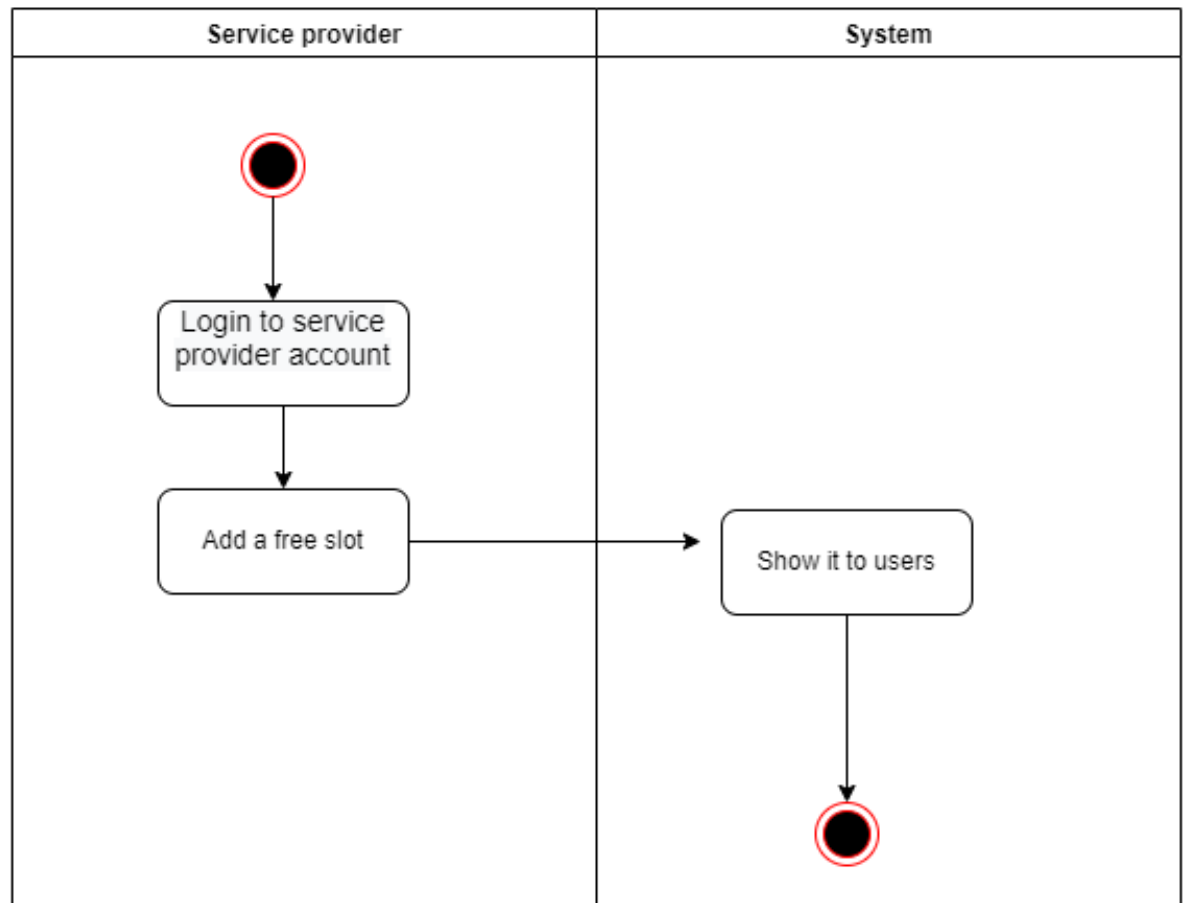




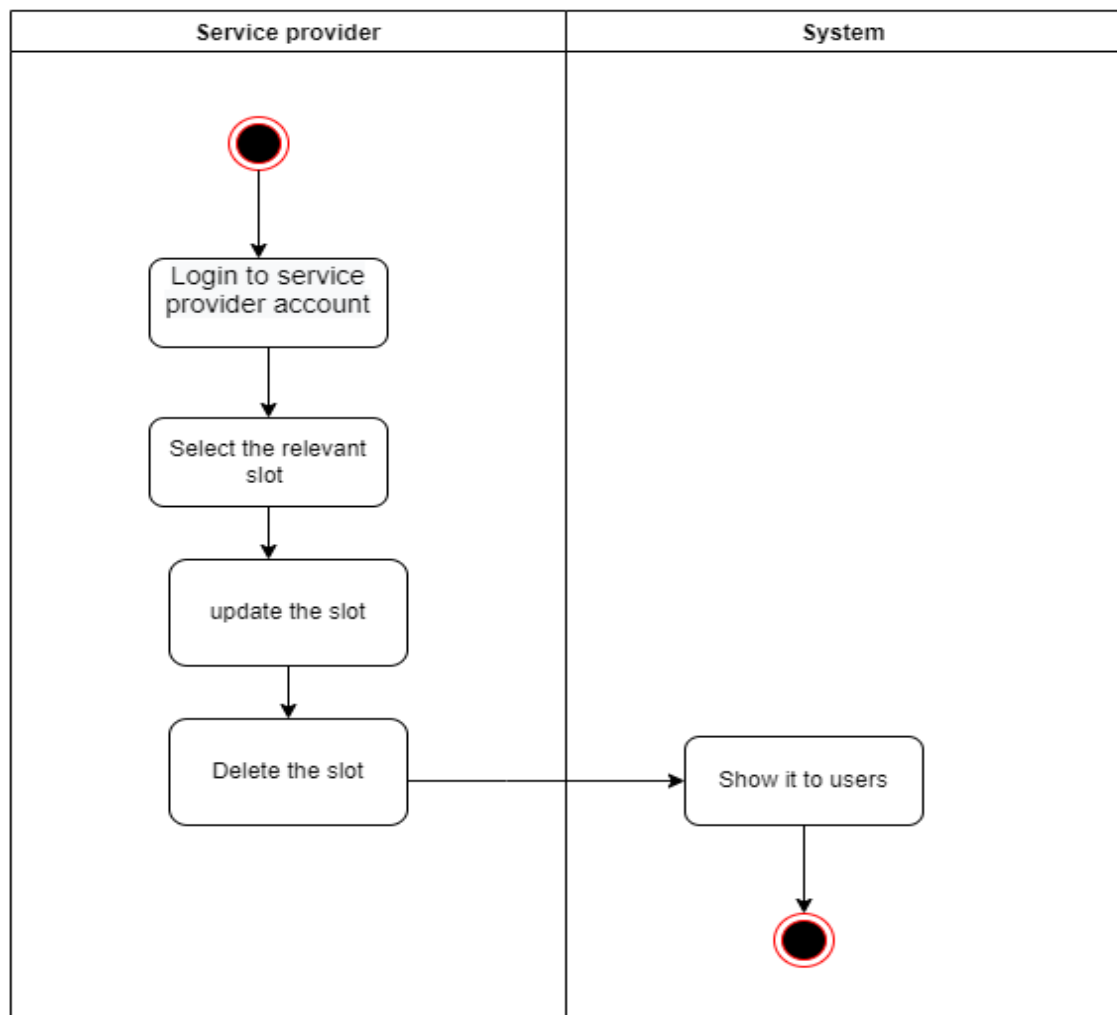


Buy /Adopt pet

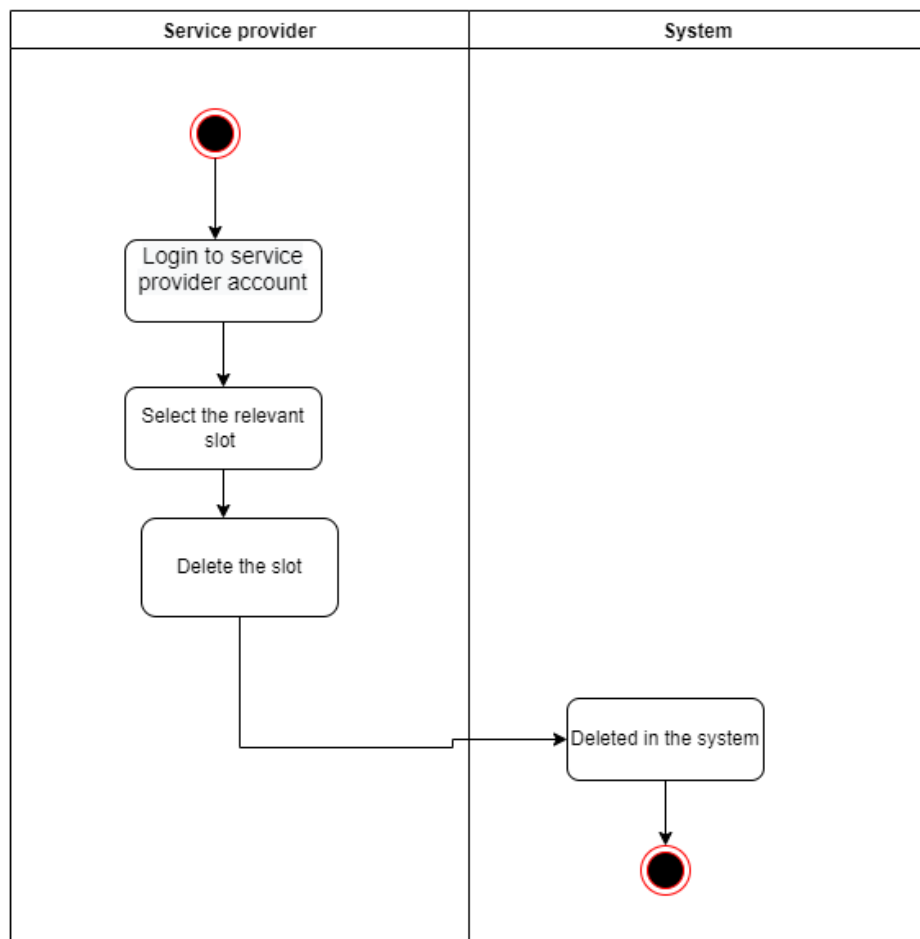




Update Slots

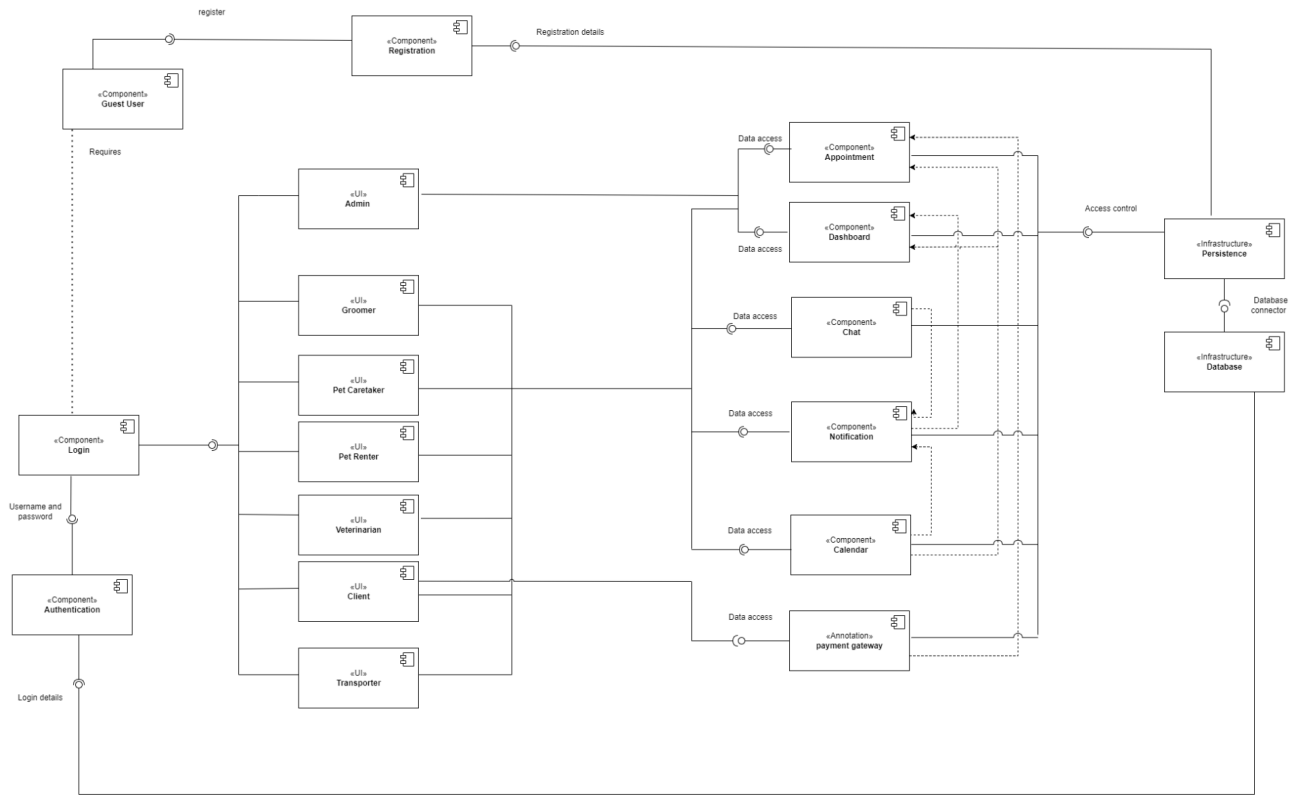


Delete Slots



Component Diagram

PetAssure



https://docs.google.com/document/d/1lKTouh4eCWujuO63lBLsCd1iCDI-hPzr6Jumdu_K9PY/edit?usp=s_haring

Use case descriptions

Use Case ID	01
UseCase Name	Login
Summary	Users can access their profiles by logging in.
Actors	User(Client, Veterinarian, transport service, groomer, caretaker, Admin,Renting service)
Preconditions	Users need to be registered.
Description	Users can visit the web page by entering their username and password.When the system identifies the user details , the user will login to the system.
Exception	If the credential verification fails an Error Message will be shown and will be reverved to the login page.
Postconditions	Users will be directed to the user profile.

Use Case ID	02
UseCase Name	Logout
Summary	Users can log out from their profiles.
Actors	User(Client, Veterinarian, transport service, groomer, caretaker, Admin, Renting service)
Preconditions	Users must be signed in.
Description	Users can end their session with the system
Exception	Users will automatically log out if the browser session is closed.
Postconditions	User will be logged out

Use Case ID	03
UseCase Name	Register as a client
Summary	New Client will submit signed up form with username and password
Actors	Client
Preconditions	
Description	Clients can sign up and register into the system.

Exception	
Postconditions	user details will be sent to the admin for verification.

Use Case ID	04
UseCaseName	Register as a service provider
Summary	Veterinarians, transport service, groomers,Renting service and caretakers will submit signed-up forms to the system.
Actors	Service providers(Veterinarian, transport service, groomer, caretaker, Renting service)
Preconditions	Users cannot be registered before for the same service.
Description	Users should fill in the details in the signup form and have to add all the proofs and documents mentioned in the system.
Exception	There may be invalid details about service providers.
Postconditions	User details will be sent to the admin for verification.

Use Case ID	05
UseCase Name	View and Update Profile
Summary	Profiles can be viewed and updated by users.
Actors	User(Client, Veterinarian, transport supplier, groomer, caretaker,Renting service)
Preconditions	All users must be logged in.
Description	Users can review and edit information by clicking on their profile
Exception	Do not save the changes made
Postconditions	An idea may occur to users about their profile

Use Case ID	06
UseCaseName	Verify Service providers
Summary	Admin has to verify the credibility of the newly registered Veterinarian, groomer, caretaker, Renting service and transport services.
Actors	Admin
Preconditions	To register, Veterinarian, groomer, Renting service and caretaker must submit the request form.

	An administrator must be logged in.
Description	The fake people also may join the system as service providers. So we have to verify the service providers to give secured and satisfactory service to the clients
Exception	Registration will be rejected if users don't meet the requirements.
Postconditions	Veterinarian, groomer, , Renting service and caretaker will be admitted to the system.

Use Case ID	07
UseCase Name	Manage Accounts
Summary	The administrator can manage user accounts.
Actors	Admin
Preconditions	There must be logged-in users present. The administrator must be logged in.
Description	Admin can edit/delete accounts. Notification will be sent with the changes to the affected users
Exception	None

Postconditions	Administrators can organize user accounts. Admin may respond to an incident.
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Use Case ID	08
UseCaseName	Send payment status
Summary	The payment gateway will update our system with the buyer transaction's payment status.
Actors	Payment gateway
Preconditions	Payment gateway listening ports have to be installed. A buyer has to trigger payment traction
Description	To continue with the invoice generation process, information about the payment transaction will be saved in the database.
Exception	This status will also be transmitted to the system if the payment transaction fails.
Postconditions	Collecting data of successful and unsuccessful transactions

Use Case ID	09
UseCase Name	Buy/adopt pets
Summary	The client will get the services through the website
Actors	Client
Preconditions	Client should have an account and have to be logged in
Description	Clients will get the available services that they want and have to pay for the services which they got.
Exception	Client enters invalid payment details The service provider not available
Postconditions	Show confirmation of successful payment

Use Case ID	10
UseCase Name	Sell pets
Summary	The client will give the services through the website
Actors	Client
Preconditions	Client should have an account and have to be logged in
Description	Clients will give the services - pet adopting, pet selling, pet renting
Exception	Client enters invalid payment details The service provider not available
Postconditions	Show confirmation of successful payment

Use Case ID	11
UseCase Name	Crossing pets
Summary	The client will give the services through the website
Actors	Client
Preconditions	Client should have an account and have to be logged in
Description	Clients will give and get the services pet crossing
Exception	Client enters invalid payment details The service provider not available
Postconditions	Show confirmation of successful payment

Use Case ID	12
UseCase Name	Select an appointments
Summary	The users will schedule appointments using the service provider's time slots.
Actors	client
Preconditions	User should have an account and have to be logged in
Description	When the service provider allocates time slots, the user is able to make an appointment to get service.

Exception	
Postconditions	Service provider will get a message

Use Case ID	13
UseCase Name	Purchase services
Summary	Client will get the services through our platform
Actors	Client
Preconditions	User should have an account and have to be logged in User should do payments for the services through systems payment gateway
Description	Client will pay and get the services as their want through the platform
Exception	If the services are not provided within the deadline they have to return the payments.
Postconditions	Get payment receipt

Use Case ID	14
UseCase Name	Add slots
Summary	Service providers have to add their free time slots for Clients to get the appointments.
Actors	Veterinarian, groomer, caretaker, Renting service

Preconditions	User should have an account and have to be logged in
Description	Service providers can add the slots, and Clients can click and make the appointment according to their timeslot.
Exception	
Postconditions	Slots will be shown in their relevant pages.

Use Case ID	15
UseCase Name	Update slots
Summary	Service providers can update their time slots .
Actors	Veterinarian, groomer, caretaker, Renting service
Preconditions	Users have to be logged in . Users should have added the relevant slot.
Description	If there are any issues regarding the slots they can make changes in details ,they can update the date and time.
Exception	If a client has already chosen the slot service providers can't update the slot.They have to cancel the appointment.
Postconditions	Updated slots will be shown in the relevant pages.

Use Case ID	16
UseCase Name	Delete slots
Summary	Service providers can delete their time slots.
Actors	Veterinarian, groomer, caretaker, Renting service
Preconditions	Users have to be logged in . Users should have added the relevant slot.
Description	If there are any issues regarding the slots they can delete the time slot.
Exception	If a client has already chosen the slot service providers can cancel the appointment.
Postconditions	Deleted slots will be removed from the relevant pages.

Use Case ID	17
UseCase Name	Search Appointments
Summary	Service providers can search the appointments and get those
Actors	Veterinarian, groomer, caretaker, Renting service
Preconditions	User should have an account and have to be logged in User should get appointments through the system
Description	Service providers will search their next scheduled appointments through the system
Exception	
Postconditions	Get appointment details

Use Case ID	18
UseCase Name	Cancel Appointments
Summary	The accepted appointment can be canceled by the users.
Actors	Client, Veterinarian, groomer, caretaker, Renting service
Preconditions	User should have an account and have to be logged in Should have/got an appointment to cancel
Description	The service provider or Clients can cancel the appointment they got/have
Exception	
Postconditions	The opposite party will get cancel message

Use Case ID	19
UseCase Name	Delete the profile.
Summary	Clients and service providers can request the admin to delete their profiles .
Actors	Clients, Service providers.
Preconditions	Users should have an account and have to be logged in.
Description	Clients and service providers will ask to delete the profile .Then the admin will delete the relevant account .
Exception	

Postconditions	Will receive a message after deleting the account.
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