

# Pet Adoption App

CCSW 223 Lab Project Report

[YBL]

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## 1 Introduction

We started our project to give animals the best life since their lives are short, and many of them suffer during their lives. For pet adoption to be simpler and more enjoyable for both humans and animals, by using technology we developed an adoption app. This app connects interested adopters with our pet adoption shelter, making it quick and easy to browse through available pets and find the best match. Then the shelter will deliver your pet right to your house. This app has many services. For example, users can search for pets they wish to adopt, or put their animals up for adoption if they cannot afford the expenses of taking care of them. They can also search for pet information, donate to help the application grow, and much more. To finish our project, we passed through many phases. First, we had to gather information by doing many interviews and we observed that most of the people that we interviewed preferred adopting rather than buying animals which means that our app will be perfect for a lot of people. Second, we went to the planning phase to determine the best plan for our project. We then went through the analysis phase to determine the project scope and in order to understand the functional and non-functional requirements of the project. The outcomes of the analysis phase provided us with the basis for the next phase of the project, which is the design phase. In this phase using the system sequence and class diagrams, we were able to have a better understanding of what the project is for, what the goals are, and what the requirements are.

## 2 Problem Definition

### Problem Definition

Many animals on the streets today have either been hurt in accidents, poisoned, shot, tortured, or killed in other cruel ways. Furthermore, many animals are abandoned by the people who are supposed to take care of them. In addition, they are not protected by a shelter. In our pet shelter, we will take them in, provide them with temporary housing, treat their health, and feed them while they wait to be adopted. By creating an app, pets can be requested for adoption or put up for adoption in a few clicks.

### Essential Functionalities

- Put pet up for adoption
- Let pet be picked up and cleaned
- Pets be adopted
- Pet Health Care requests
- Providing Pets' specified foods and energy calculation
- Donate to assist with the operations costs and medical supplies.
- Providing information about the pet (name, age, type, gender, medical history).
- We provide Checkup and track service for the pet you put up for adoption until it's in a new home.

### 3 Information Gathering

#### 3.1 Interview Description

We will interview people who own or care for animals. This will also help us design our app in a good direction since we will be able to understand the potential users of our app.

- 1- Can you describe what it feels like to see an injured stray animal?
- 2- If you heard about a pet adoption app that helps stray animals, what would you say?
- 3- Are you going to be capable of providing a healthy food program for your pet? If not, would it be convenient for you that the app will help construct one?
- 4- What information you want to know about the pets?
- 5- Do you prefer buying or adopting pets?

#### 3.2 Interview Analysis

Interviewer	Interviewee	Analyst Comment
Elaf fayk maqadmi	Alaa, student, 23- 12-2022	My interviewee was feeling sad about seeing injured stray cats or other animals in the streets every day. And she was ready to help these animals in all the ways possible. After I asked her about our app in question (2), she was excited to hear about it. Her goal was to help these animals by putting them up for adoption in our app after doing some research and reading about the app. In addition, she was delighted to learn that the app provided a healthy diet program for adopted animals if their owners could not afford it. She was willing to enroll in the program since she struggled with feeding her own pets the proper diet. According to her, the most important information she wanted to know about the animals in the app was their sex since it was impossible for her to determine the sex of her pets. Rather than purchasing an animal, she recommended adopting it since they will be in better condition with their owners than when they are sold in cages with many illnesses.

Elaf fayk maqadmy	Tahani, Doctor, 23- 12-2022	When she saw stray animals living in poor conditions, my interviewee felt pain and was traumatized. She stated in question (2) that she would promote the app on her social media accounts as a part of her support for the idea. She expressed her happiness that the app could provide a healthy food program, saying that it was a very good idea because she would get a healthy animal. Pet information she wanted to know was vaccine dates, how many times per week she could bathe the pet, and appointments to make general check-ups for the animal. She preferred adopting rather than buying for saving money purposes.
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Atouf Abdullah Ghabashi	Rawan Alsulaimani , Health Information and technology management student, Inter viewed on 22-12-2022	<p>1.The interviewee mentioned how heart wrenching to see an injured stray animal and stated an example on how difficult it is for a broken arm to be left unhealed.</p> <p>2.The question had an amazing impact on Rawan as she believed that it would be a wonderful thing to help animals at the touch of some buttons that could be efficient for everyone.</p> <p>3.Rawan can provide a healthy program for her pet but stated that she might face struggles in doing that, so constructing one in the app might be a great idea.</p> <p>4.Information that indicates whether her pet is sick or not. And explanations about certain behaviors that may be common.</p> <p>5.Rawan stated that she prefers adopting one, as its difficult to endure the fact that there are animals out there that don't have a home or a family to love and take care of them.</p>
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Atouf Abdullah Gha bashi	Batool Sannan, Medical student, Interviewed on 23-12-2022	<p>1.Batool describes how upsetting it is seeing a helpless animal waiting for help while everybody is busy to even look at it.</p> <p>2.She expresses how grateful to know the efforts of the pet adoption app developers' heart and soul are put to help animals. Furthermore, she mentions that she will try her best to make sure that the app is known to as many people as possible.</p> <p>3.Batool states that she gets easily distracted at most of her time and it would be convenient for her that the app could provide a balanced healthy meal plan for her pet.</p> <p>4.The interviewee is interested in knowing a pet's physical and mental health as it is very handy and crucial for the app to detect pets' well-being.</p> <p>5.Without any hesitations, Batool went with adoption since most of pet shops only care about breeding animals rather than providing a healthy life cycle for them.</p>
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Alin Alsulaiman	Rawaf , Artificial intelligence student, Interviewed on 24-12- 2022	<p>Rawaf said she would feel sad and upset to see an injured stray animal, also she loved the app idea and mentioned that she would upload it immediately, Rawaf talked about how hard for her to keep a healthy food schedule for her pet, therefore she states that sometimes most people forget to feed their pets or feed them more than they should unintentionally so she agreed for the app to provide her with a healthy food program, in question (4) Rawaf replied that she would like to know about how to treat their sickness correctly because sometimes we can't visit the vet so we need to diagnose the disease by ourselves and know how severe it is to take an action , lastly she preferred to adopt the pets not buying them.</p>
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Alin Alsulaiman	Batoul Hamad, Medical student, Interviewed on 25-12-2022	<p>My interviewee referred that she would feel disturbed and upset and would seek immediate help to rescue the injured animal, also in question (2) she would feel relieved knowing there are people who can be available to help stray animals and she would like to download the app</p> <p>and send it to friends and family. However, batoul said that she would try to provide a healthy program for her pet, but an app would be more helpful to keep track on what to feed her pet in healthier ways, batoul wanted to know the pet's medical history from the app before adopting, lastly in question (4) she preferred adopting pets rather than buying them.</p>
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Lina Nazer	Joud Kalkattawi Student Interviewed on 23-12-2022	<p>In the first question my interviewee felt sad and bad for the animals and felt that she would like to help them by taking them to the veterinarian and make sure to put them in a better home.</p> <p>In the second question she insisted on making sure she will share the app with people and let them know about it to stop animals from getting harmed in the future.</p> <p>In the third question she felt that they should provide instructions depending on the breed of the pet like how and what they are supposed to eat and what not to eat because the person who adopts the pet makes sure to know everything about the pet even if the person was experienced it's better to have instructions.</p> <p>In the fourth question she mentioned instructions of the food and what they are supposed to eat. she mentioned which weather suits the pet, for example a husky. They prefer winter than summer and how to prevent animals from getting diseases. Furthermore, she mentioned that it would be good to know where the best clinics are to go to and how the pet should live with another pet not to get depressed. In question 5 she prefers adopting and she says if you look at from a religious purpose, we have you're not supposed to buy animals and I feel they shouldn't be sold.</p>
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Lina Nazer	<p>Aliah Kalkattawi employee Interviewed on 22-12-2022</p>	<p>in the first question the interviewee mentioned that it is so hard breaking because when you see an animal hurt, you couldn't do anything except that you take it to a veterinarian and it's not always available in Saudi</p> <p>in question 2 she says it is amazing and it will help a lot of stray animals and the app will make life easy for us</p> <p>in question 3 she mentioned that she would love to have an app that will help construct a food program and which will make it easier for us instead of searching a lot about your pet and if there was an app to summarize these things it would be amazing</p> <p>in question 4 she says if there was an app she would like to know about the animals an example she wants to know if her pet has a disease and she don't know what the symptoms mean and also she remembers there was an app for plants that you take a picture of a plant that looks dull or has something wrong and this app brings you all the possibilities of what it might have and also there are people who don't know that there are foods that specific animals shouldn't eat and we are like ok with feeding them this so we should be aware of the food they shouldn't eat</p>
Sara Alqarni	<p>Abeer Abdullah, Law Student, Interviewed on 24-12-2022</p>	<p>In question (1) Abeer states that it's painful to her when she sees stressful pets especially when she can't do anything about it. In question (2) she said that she would download it as there are not that many apps that cater to stray animals. She says the app will be helpful to her in response to a question (3), especially if it is well organized because obtaining information online may be difficult. In question (4) She says that she thinks mostly about medical history and how to deal with the pet's diseases. Abeer responds to question (5) by saying that she is extremely against buying but she believes most people in our society are not cultured enough about the downsides of buying animals.</p>

Sara Alqarni	Hend Alharbi, Student, Interviewed on 25-12- 2022	In question (1) Hend stated that seeing a hurt and struggling animal makes her feel sorry and sad. In response to question (2), She would support the app because she favors pet adoption as it's a way to help stray animals to find sanctuary and to keep them safe and it's comfortable to be assured that the stray animals are safe. Hend responded to question (3) by stating that she already has a food schedule for her cat, but any help with a healthy food program would be a huge help and she would love to see if the app provides that. In question (4) She says that she wants to know about their habits, personality, breed, and offspring. Hend said that she believes that adopting a pet implies saving the pet's life in response to a question (5).
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Interview summary:

- The app will make it convenient for everyone to use.
- Pets' mental and physical health is essential.
- most of the people that we interviewed preferred adopting rather than buying animals which means that our app will be perfect for a lot of people.

## 4 Planning Phase

### 4.1 Project Goals

#### *The purpose of the project*

##### **Content**

A pet adoption app that's being developed to help stray animals to be taken in and cared for. The user if desired, will have the features of adopting a pet that's been treated by the organization or apply their animals up for adopting.

##### *Motivation*

The purpose of the project is to help as much as possible of the stray or unwanted animals without any costs required.

##### *Considerations*

We created this app for several reasons, such as the user wanting to put their animal for adoption because they suffer from allergies or can't afford to care for the pet, as well as animals that can't endure living in harsh environments on the streets.

##### *b. Goals of the Project*

Our goal is to help people adopt animals or to provide the ability to put out an animal for adoption with the touch of a few buttons using our app.

#### *Preliminary report*

##### **The problem:**

There are many animals in the streets these days that are getting harmed from accidents and struggle living without having a safe shelter. A pet shelter will help protect their lives by taking them in, providing them temporary housing, treating their health, and feeding them to be adopted. Creating an app will make it convenient for the customers to access data for requesting pets to adopt and put up for adoption.

##### **Findings:**

- Providing pets' proper diets

- Prefer adoption over buying animals
- Provide the users with pets' health information that includes mental or physical as well as treatments
- People want to see an application that helps adopt stray animals.

#### Recommendation or proposed solution:

Implementing all the features that comes in handy for the users, such as

- Adding a diet plan based on the pet's' type, age, and breed.
- Provide more pets information such as mental/physical health with treatments
- Help people adopt pets/put pets up for adoption

## 4.2 Cost and schedule estimation

#### Cost & schedule estimates:

80,000 SR estimated project cost

#### *Project Estimated Costs*

Resources	Estimated cost
Java Project Software	10,000 SR
Software Developer	400 SR/hour
Software Architecture Designer	300 SR/hour
Project Manager	600 SR/hour
Web Developer	300 SR/hour
Social Media Advertising	4000 SR
System Analyst	500 SR/hour

#### Project Estimated Schedule: SW project scheduling

Tasks	Estimated duration	Start date	End date
Software development ( -determine project scope -gather core data -core scope complete)	10 days ( -2 days -5 days -3 days)	Mon 12/26/22 (- Mon 12/26/22 - wed 12/28/22 - wed 12/4/23)	Fri 1/6/23 ( -Tue 12/27/22 - Tue 1/3/23 - Fri 1/6/23)
Analysis Requirement ( -conduct budget analysis -establish delivery timeline -obtain agreement to proceed -analysis complete)	7 days ( -1 day -1 day -2 days -3 days)	Mon 1/9/23 ( - Mon 1/9/23 -Tue 1/10/23 - wed 1/11/23 - Fri 1/13/23)	Tue 1/17/23 ( - Mon 1/9/23 -Tue 1/10/23 - Thu 1/12/23 - Tue 1/17/23)
Design ( -evaluate software specifications -develop functional specifications -integrate feedback into functional specifications -design complete)	12 days ( -3 days -4 days -2 days -3 days)	Wed 1/18/23 ( - Wed 1/18/23 -Mon 1/23/23 - Fri 1/27/23 - Tue 1/31/23)	Thu 2/2/23 ( - Fri 1/20/23 -Thu 1/26/23 - Mon 1/30/23 - Thu 2/2/23)
Development ( -review functional specifications -describe modular design parameters -development complete)	12 days ( -3 days -4 days -2 days -3 days)	Fri 2/3/23 ( - Fri 2/3/23 - Fri 2/10/23 - Fri 2/17/23)	Wed 2/22/23 ( - Thu 2/9/23 - Thu 2/16/23 - Wed 2/22/23)

### 4.3 The Feasibility Study

- **Problem Definition:**

There are lots of street animals in the street these days. that are getting harmed from accidents and struggle living with not having a safe shelter, so they are not living well

- **Scope Objectives of “new system”:**

“Pet adoption app” is a functional system that provides the best living for animals. The purpose of the system is to get animals adopted to a good home. precisely the user can put their pets up for adoption or can adopt pets from the system. Also, if the user doesn't have the time to clean its pet or search about what food, health, ...etc. is good for them they can request for the pet to be picked up and cleaned. on the other hand, for the food and health the app provides specific information about the food calculation and health care of pets. Our system not only saves animals from poor living but also helps many pet owners with taking care of their pet which makes the people and the animals happy.

What distinguishes our system from others is that it has everything a pet and a pet owner needs, also it is very comforting and easy to use for users where you can immediately get what you need and want fast.

- **Alternative Solutions:**

- add a pet care feature in the tawaklna app.
- build an app for the pet adoption.

<i>Alternatives</i>	<i>Cost</i>	<i>Benefits</i>	<i>Drawbacks</i>
<i>add a pet care feature in the tawaklna app</i>	\$150	the customer can have a loyalty points card in the app every time they pay for a service, and they can use it for free after multiple times	the customer cannot return the service after they have booked and paid for it
build an app for the pet adoption	\$200	saves the customer transportation money instead of going to shelters he can easily look them up on his phone	when the customer is not pleased with the pet, they adopted nothing can be done for the customer

### 1 Software Impacts:

We will build our system from scratch.

### 2 Potential Changes in the Organization:

Pet owners are going to take care of their pets better even if they were busy and many animals on the street can have a sweet home now.

### 3 Recommended Alternative of the Course of Action:

build an app for the pet adoption This alternative will present to the users all they need for their pets (adopting, health care and more) also, it would save time and money and offer proficiency and effective services.

## 4.5 Project Plan

TIMELINE

Start  
Mon 12/26/22

Jan 1, '23

Jan 8, '23




















Jan 15, '23

Jan 22, '23

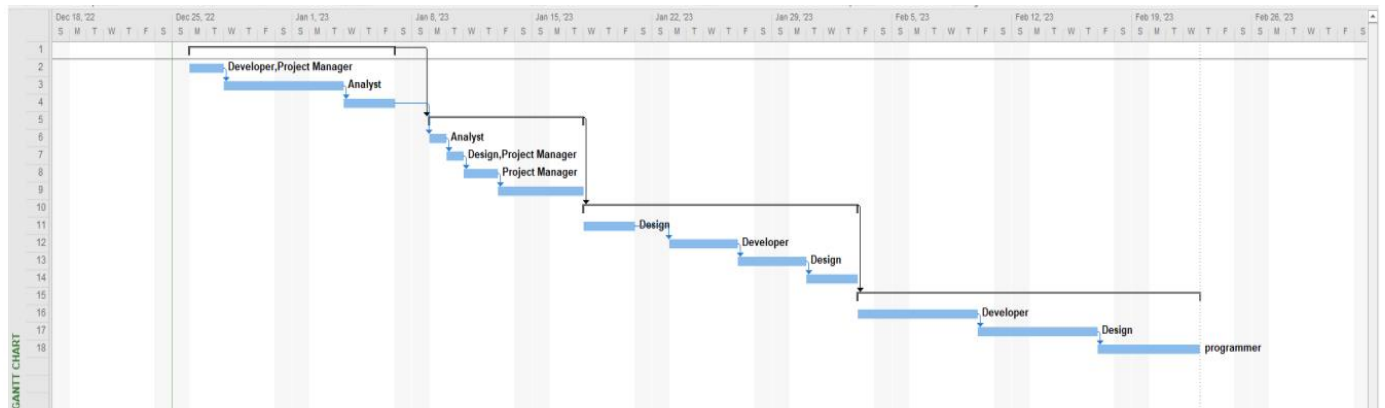
Jan 29, '23

Feb 5, '23

Add tasks with dates to the timeline

		Task	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Add New Column
1		▲	software development	10 days	Mon 12/26/22	Fri 1/6/23			
2			determine project scope	2 days	Mon 12/26/22	Tue 12/27/22		Developer,Project	
3			gather core data	5 days	Wed 12/28/22	Tue 1/3/23	2	Analyst	
4			core scope comple	3 days	Wed 1/4/23	Fri 1/6/23	3		
5		▲	Analysis Requirement	7 days	Mon 1/9/23	Tue 1/17/23	1		
6			conduct budget analysis	1 day	Mon 1/9/23	Mon 1/9/23	4	Analyst	
7			establish delivery timeline	1 day	Tue 1/10/23	Tue 1/10/23	6	Design,Project Mar	
8			obtain agreement to proceed	2 days	Wed 1/11/23	Thu 1/12/23	7	Project Manager	
9			analysis complete	3 days	Fri 1/13/23	Tue 1/17/23	8		
10		▲	Design	12 days	Wed 1/18/23	Thu 2/2/23	5		
11			evaluate software specifications	3 days	Wed 1/18/23	Fri 1/20/23		Design	
12			develop functional specifications	4 days	Mon 1/23/23	Thu 1/26/23	11	Developer	
13			integrate feedback into functional specifications	2 days	Fri 1/27/23	Mon 1/30/23	12	Design	
14			design complete	3 days	Tue 1/31/23	Thu 2/2/23	13		
15		▲	Development	14 days	Fri 2/3/23	Wed 2/22/23	10		
16			Review functional specifications	5 days	Fri 2/3/23	Thu 2/9/23		Developer	
17			describe modular design parameters	5 days	Fri 2/10/23	Thu 2/16/23	16	Design	
18			development complete	4 days	Fri 2/17/23	Wed 2/22/23	17	programmer	

TASK SHEET





## 5 Analysis Phase

### 5.1 Stakeholders

#### 1 The Users

the ones who can adopt and benefits from the app services.

#### 2 The Adoption Shelter

the home of the stray animals and they are responsible for taking care of the animals situation and sending their information to the app.

#### 3 Adoption shelter employee

who are responsible for providing animals and keep information needed [adoption status, public profile...etc.]

#### 4 Adoption shelter manager

who manages shelter operations and deal with complaints and suggestions.

#### 5 IT staff

the ones who are responsible to communicate with the users about the pet adoption situation.

#### 6 The drivers

who are responsible to drive the animals to their new home destination and can send feedback to the user.

#### 7 Donation service providers

they manage the donation processes of the users.

#### 8 Customer service

They are responsible for supporting customers via online chat, email, and social media.

## 5.2 Context Diagram

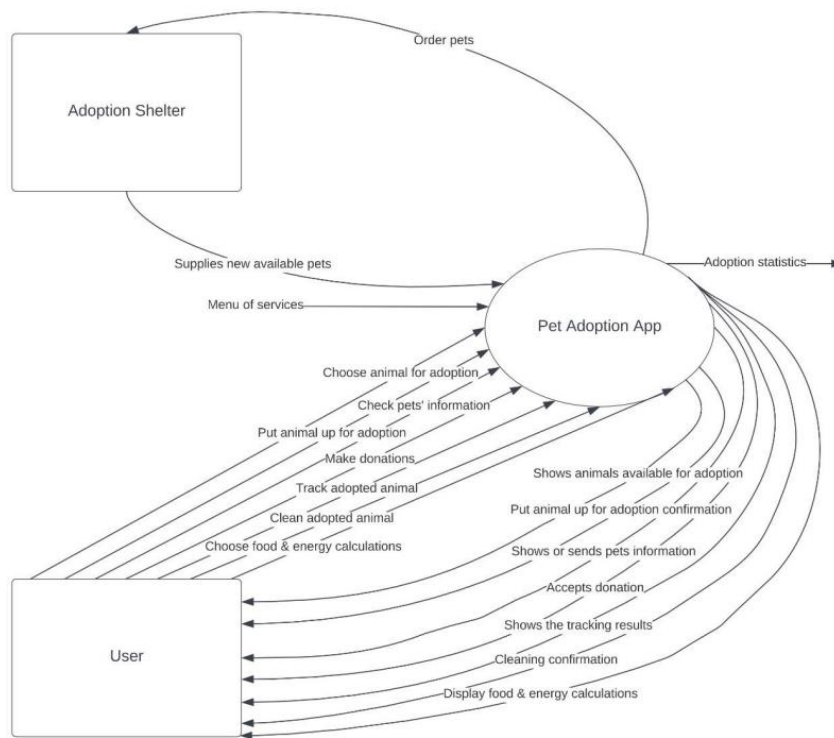
### *The scope of the work*

#### 1 The Current Situation

There are many animals in the streets these days that are getting harmed from accidents and struggle living with not having a safe shelter. A pet adoption app will help stray animals to be taken in and cared for. The user if desired, will have the features of adopting or apply their animals up for adopting.

#### 2 The Context of the Work

### Context Diagram



### 5.3 Event Table

#### Business Event List

Event Name	Input and Output	Summary
1. Receiving pets	Supplies new available pets (in)	Receiving pets from an adoption shelter.
2. Ordering new pets	Order pets (out)	Order pets from an adoption shelter.
3. Choose an animal for adoption	Choose animal for adoption (in)	The user can choose a specific animal to adopt.
4. selecting pet information option.	Check pets' information (in)	The user chooses check pets' information option to see pets' information.
5. selecting the putting animal for adoption option.	Put animal up for adoption (in)	The user will chooses Put animal up for adoption option to put its pet up for adoption.
6. selecting the donation option.	Make donations (in)	The user chooses to donate.
7. selecting track your pet option.	Track adopted animal (in)	The user chooses to track its adopted animal.
8. selecting Clean adopted pet option.	Clean adopted animal (in)	The user chooses to clean the animal it has.

9. selecting food and energy calculations option.	Choose food and energy calculations (in)	The user chooses to want to see food and energy calculations for its pet.
10. Displaying adoptable animals.	Show animals available for adoption (out)	The app shows animals available for adoption.
11. Confirming the selected pet.	Put animal up for adoption conformation(out)	The app confirms the pet that the user wants to put up for adoption.
12. Generating pets' information	Show or sends pets information(out)	The system shows the information of the pets.
13. Accepts donation	Accepts donation(out)	The system shows that it accepted the donation.

14. Displaying the tracking results	Shows the tracking results(out)	The system shows the tracking results of the pet.
15. Cleaning confirmation	Cleaning confirmation(out)	The system confirms the pet the user wants cleaned.
16. Displaying the food and energy calculations	Display food and energy calculations(out)	The system will display the food and energy calculation for the pet.
17. Receiving menu of services	Menu of services (in)	The application will have the menu of services that's been created by the developer.
18. Generating adoption statistics.	Adoption statistics(out)	The system will send out all information about the adoptions that happened.

## 5.4 Functional Requirements

FR1: The system will provide the multiple types of animal classifications.

FR2: The user will have the choice of adopting an animal.

FR3: The user will be able to put an animal for adoption.

FR4: The system will provide a healthy meal plan for the adopter.

FR5: The app will provide information about the pet: pet type, name, breed, color, age, weight

FR6: The app will provide health information (chronic conditions, allergies, food preferences, food/water rations, activity goal, etc.)

FR7: The user will be able to have an option to create several profiles as very often people have more than one pet.

FR8: The user will be able to track their pet adoption process.

FR9: The user can search for pets and sort them by type, breed, age, and color.

F10: The app provides a chat option between users for the adoption process.

F11: The app allows users to submit reports/complaints/suggestions via online chat support.

F12: The user will have application guidelines for better experience.

F13: the app will be available to the user through the App Store.

F14: the app will list all the pets available for adoption.

F15: the app will list all services available in the app.

## 5.5 Non-Functional Requirements

### 2.1 Performance

NFR1: The app will be very fast. It should load every page in 2 seconds.

NFR2: The app should perform the operations within a short time.

### 2.2 Usability

NFR3: The user must be able to download the application on their phone or access it through the website.

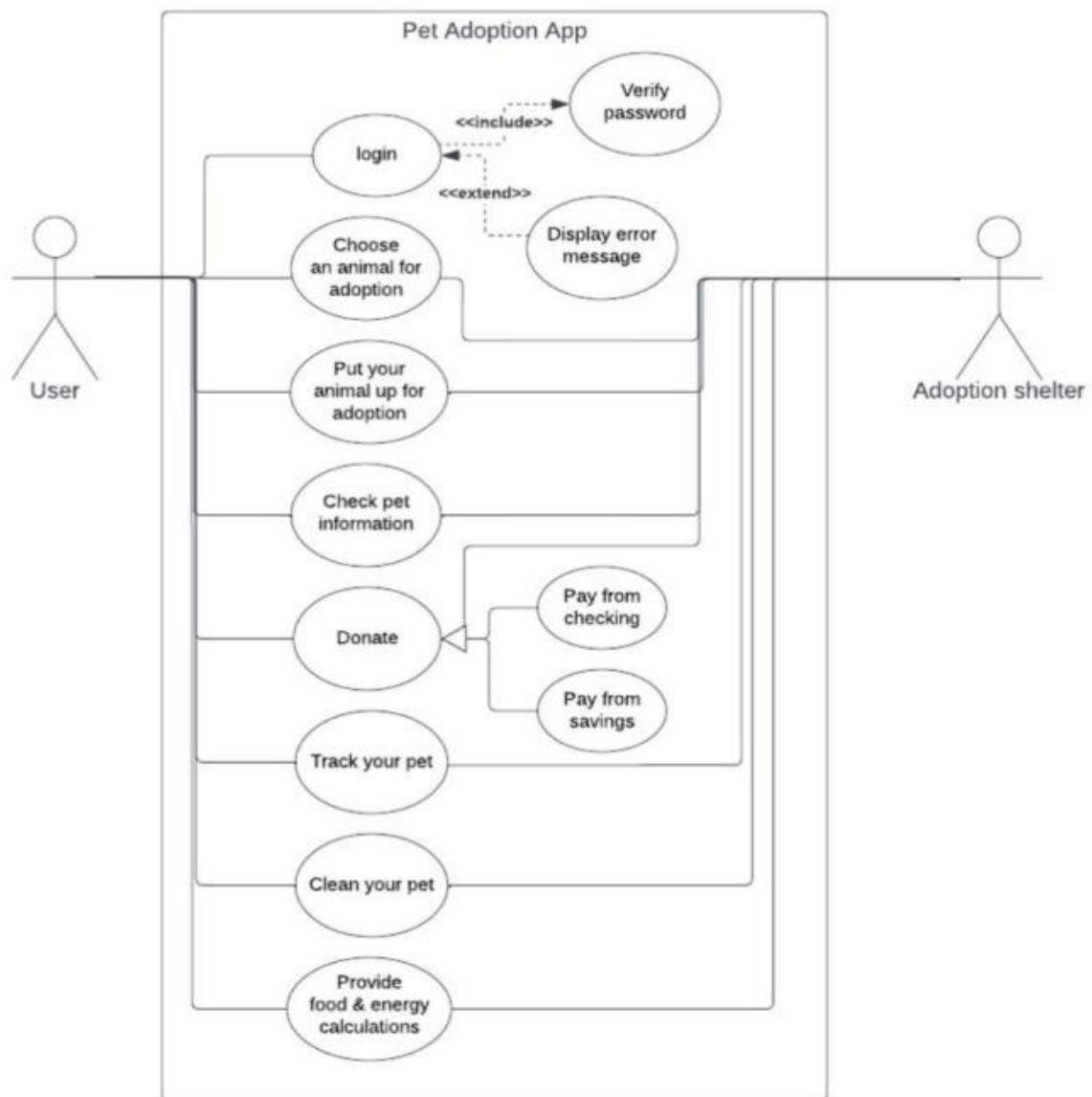
NFR4: The app must be connected to the internet to perform some operations.

### 2.3 Availability

NFR5: The user can add the pet they put up for adoption on the app throughout the week anytime during the day.

NFR6: The app will provide a feature in which healthy meals are available offline without the need of a network connection.

## 5.6 Use case Diagram



## 5.7 Scenarios

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<b>Name</b>	<b>Donate</b>
<b>Id</b>	UC1
<b>Actors</b>	user
<b>Precondition</b>	Verifying user's identity
<b>Path</b>	<ol style="list-style-type: none"><li>1. The user will select the donation option from the application menu.</li><li>2. The user will be able to write the amount of money that he wants to donate to the adoption shelter.</li><li>3. The application will generate an electronic invoice after the user confirms his donation.</li></ol>

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<b>Name</b>	<b>Put the user's animal up for adoption</b>
<b>Id</b>	UC2
<b>Actors</b>	user
<b>Precondition</b>	the user should login into their account
<b>Path</b>	<ol style="list-style-type: none"> <li>1. user clicks the put pet up for adoption option.</li> <li>2. The app asks the user to put the name, breed, color, weight of pet, and health condition of the pet.</li> <li>3. the user puts the name, breed, color, weight of pet, and health condition of the pet.</li> <li>4. the app accepts the pet to put up for adoption and displays that the pet is successfully put up for adoption.</li> </ol>

<b>Name</b>	<b>Provide food and energy calculation</b>
<b>Id</b>	UC3
<b>Actors</b>	users and adoption shelter
<b>Precondition</b>	A pet must be adopted by the user to get food and energy calculations from the shelter
<b>Path</b>	<ol style="list-style-type: none"> <li>1.The user will enter the pet's health information (name,weight,breed)</li> <li>2.The app will calculate the necessary calories for the animal.</li> <li>3.The app will provide the energy plans as well as the appropriate food</li> <li>4.The adopter will then head to the shelter to collect food ,along with meal plan printed if desired</li> </ol>

<b>Name</b>	<b>Check pets information</b>
<b>Id</b>	UC4
<b>Actors</b>	User
<b>Precondition</b>	a user must login successfully
<b>Path</b>	<ol style="list-style-type: none"> <li>1.The user clicks on the search option from the application interface.</li> <li>2.The user search for pets based on their preference.</li> <li>3. The user selects a preferred pet profile.</li> <li>4. The app will display pet's information page including (type, name, age, breed, and offspring).</li> </ol>

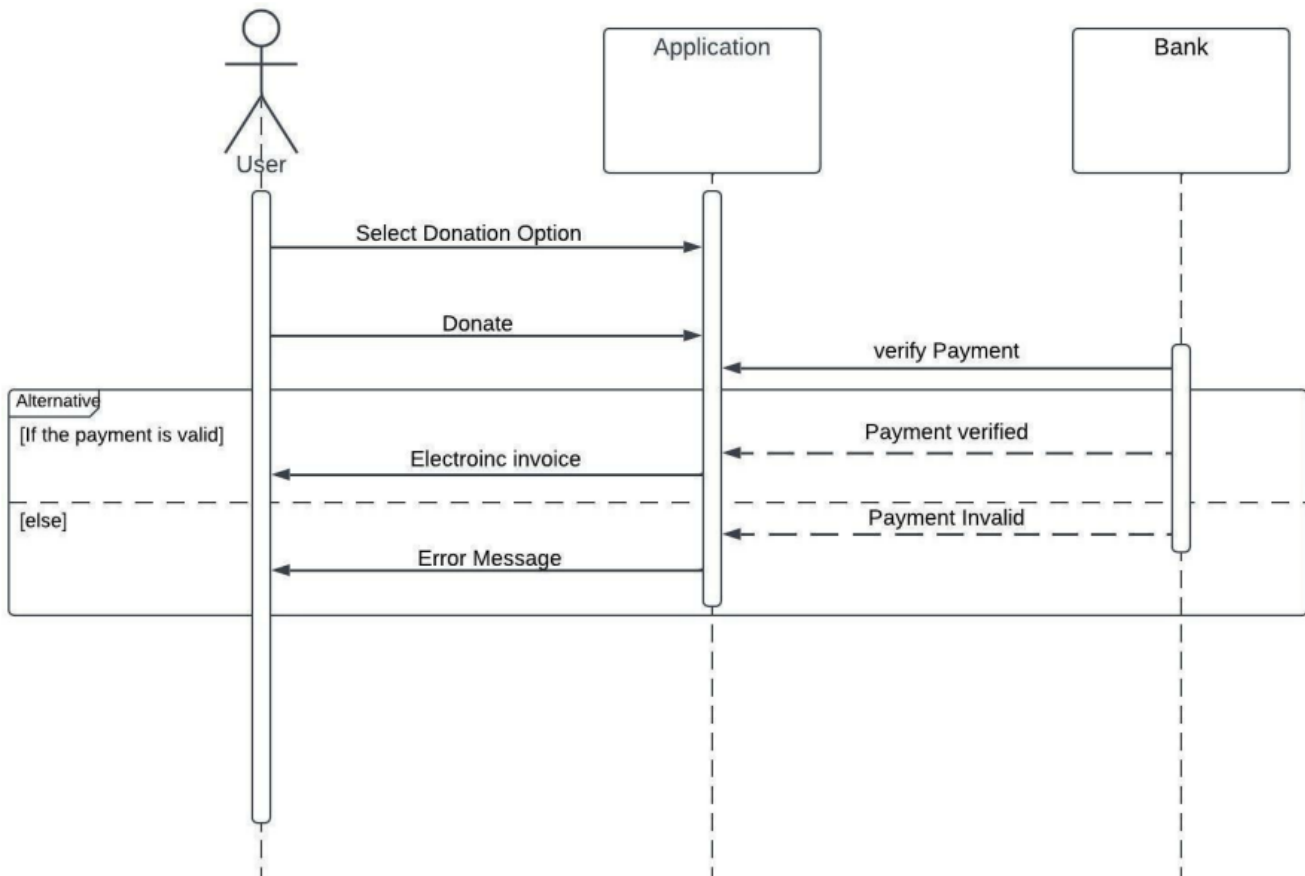
<b>Name</b>	<b>choose an animal for adoption</b>
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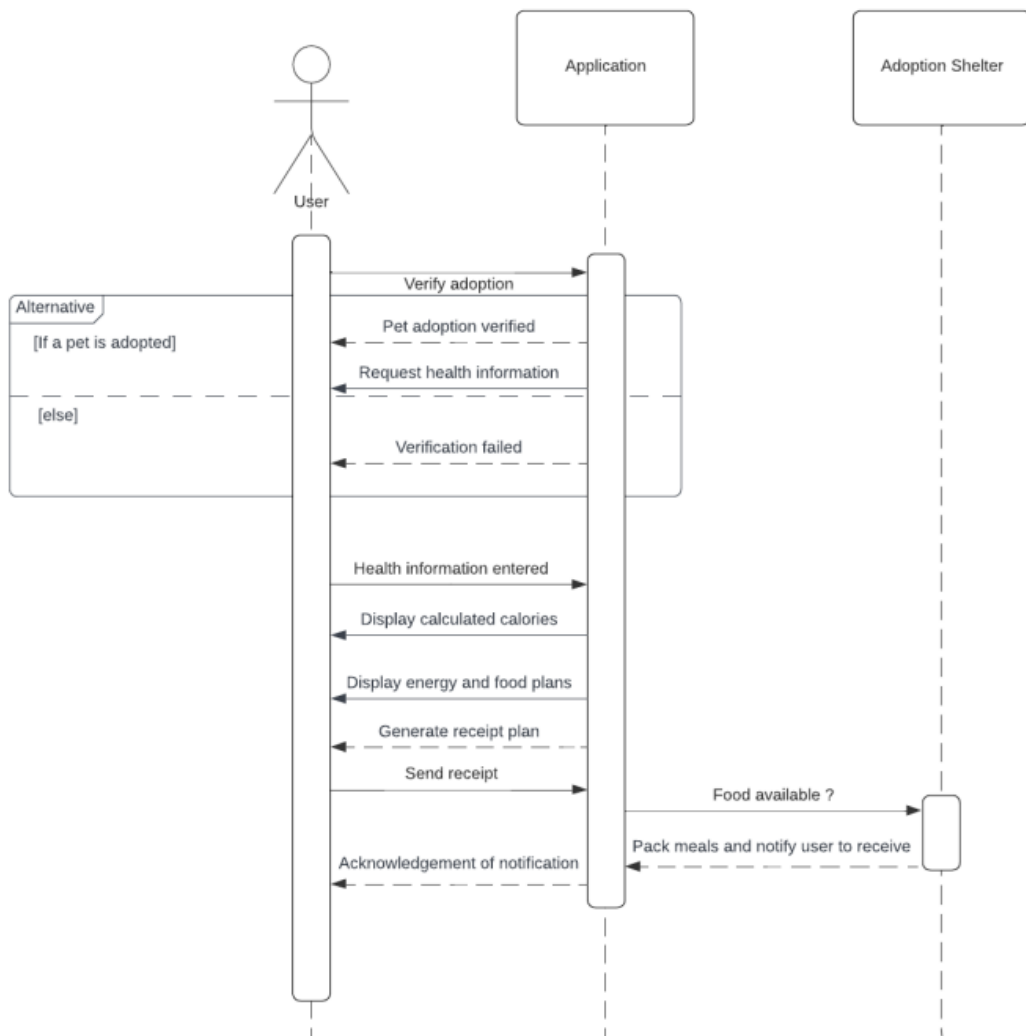
<b>Id</b>	UC5
<b>Actors</b>	user
<b>Precondition</b>	the user must create an account and login
<b>Path</b>	<ol style="list-style-type: none"><li>1. The user clicks on the (adopt an animal) option from the application choices.</li><li>2. The user selects the pet they want to adopt from the pet profile view.</li><li>3. The user checks the conditions and agree to them.</li><li>4. The user enters their address information.</li><li>5. The app will confirm the successful adoption process.</li></ol>

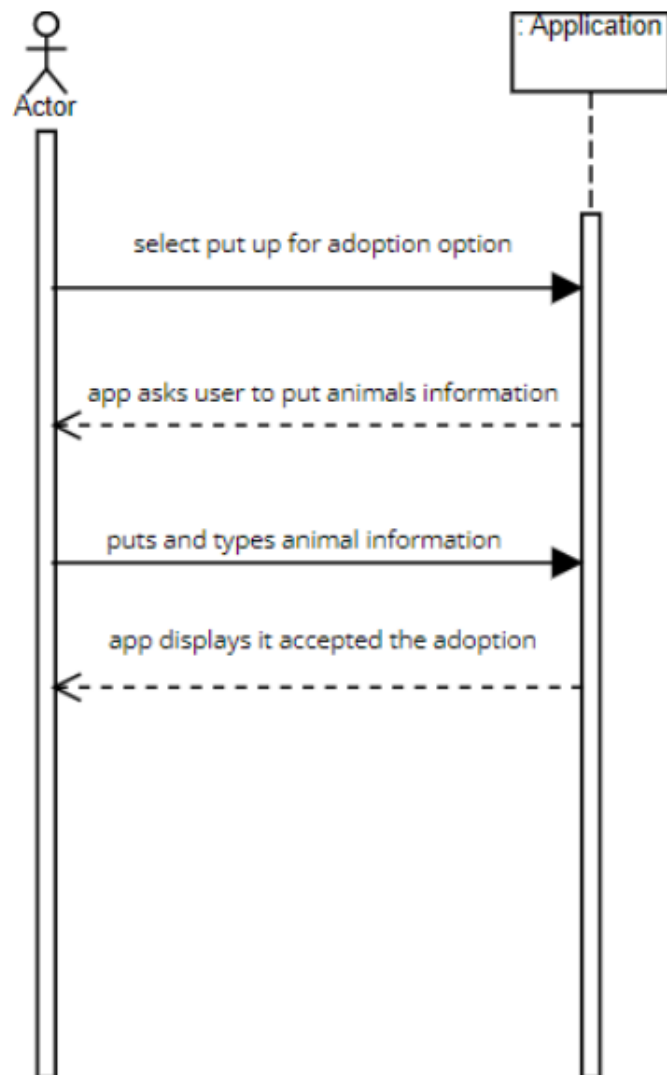
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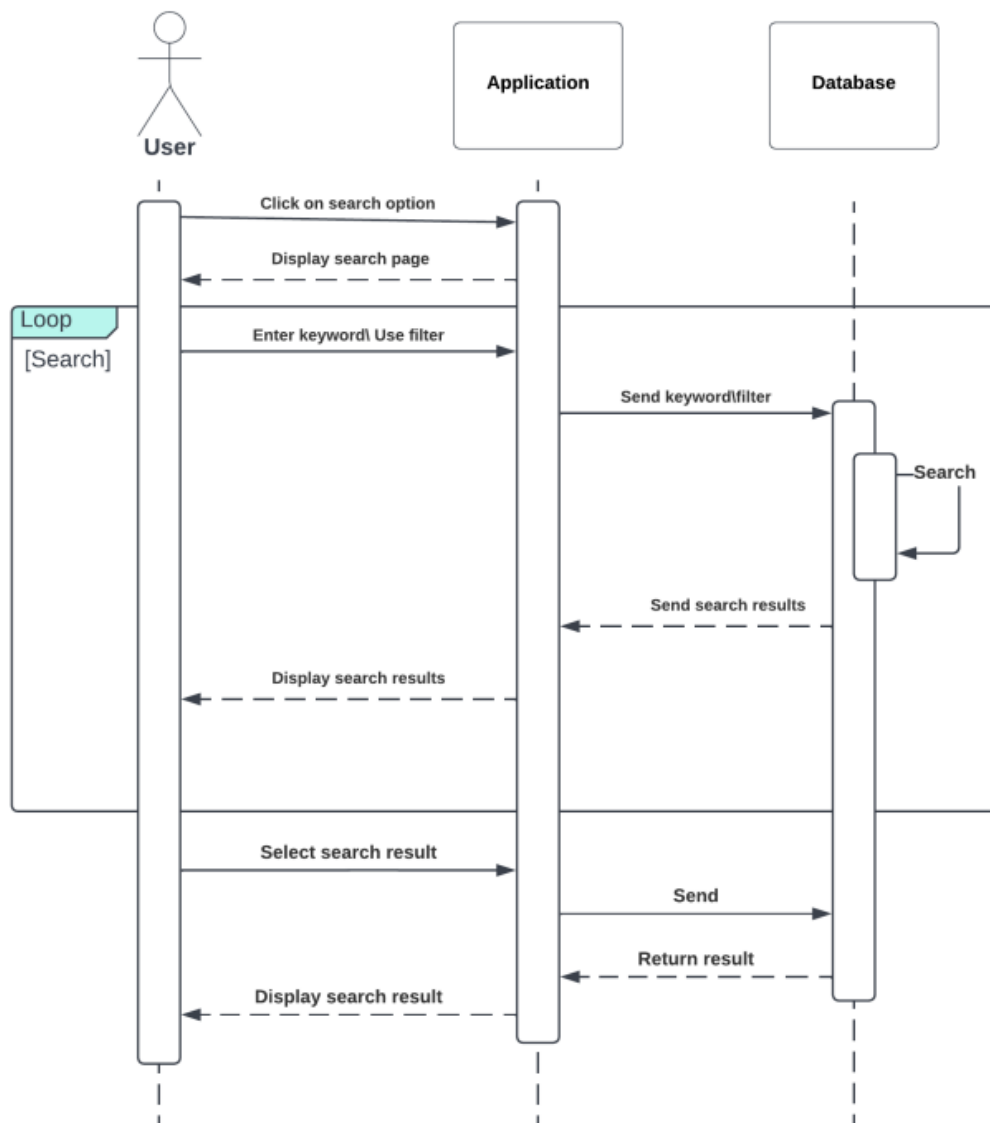
## 6 Design Phase

### 6.1 System Sequence Diagram





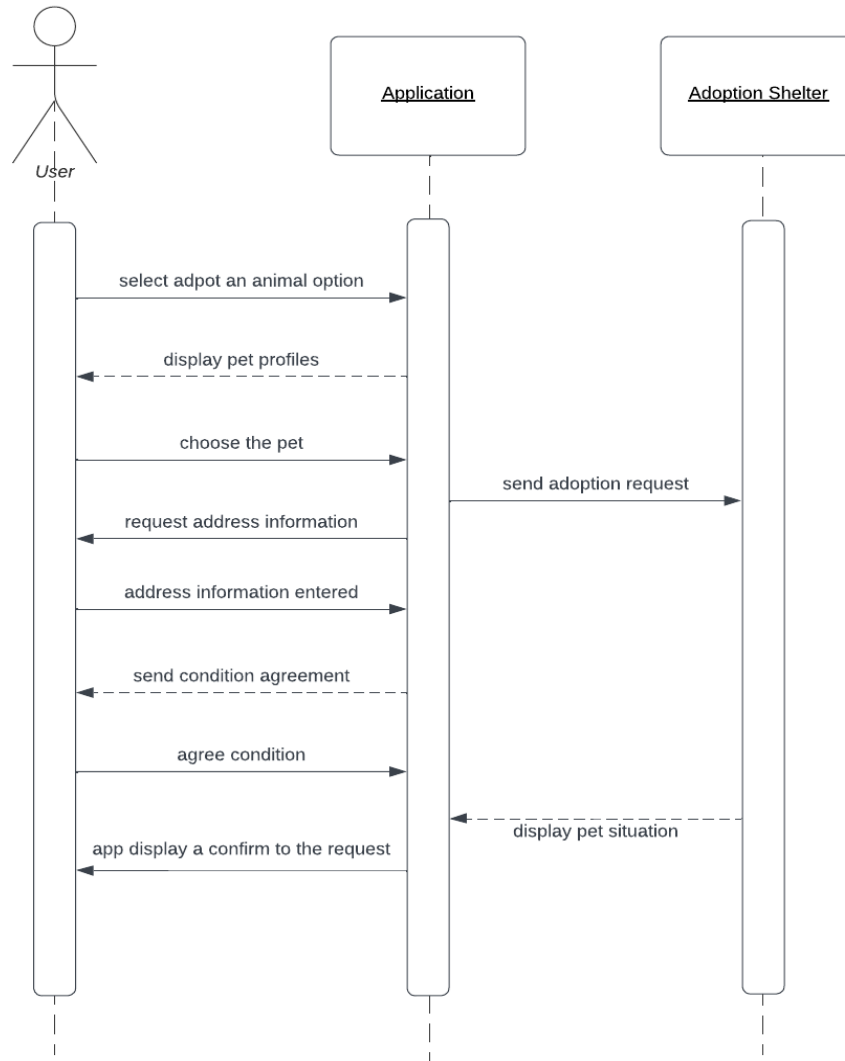






## Sequence diagram

aleen hamad alsulaiman | February 12, 2023



## 6.2 Class Diagram

### PART 1 SYSTEM CLASS ANALYSIS

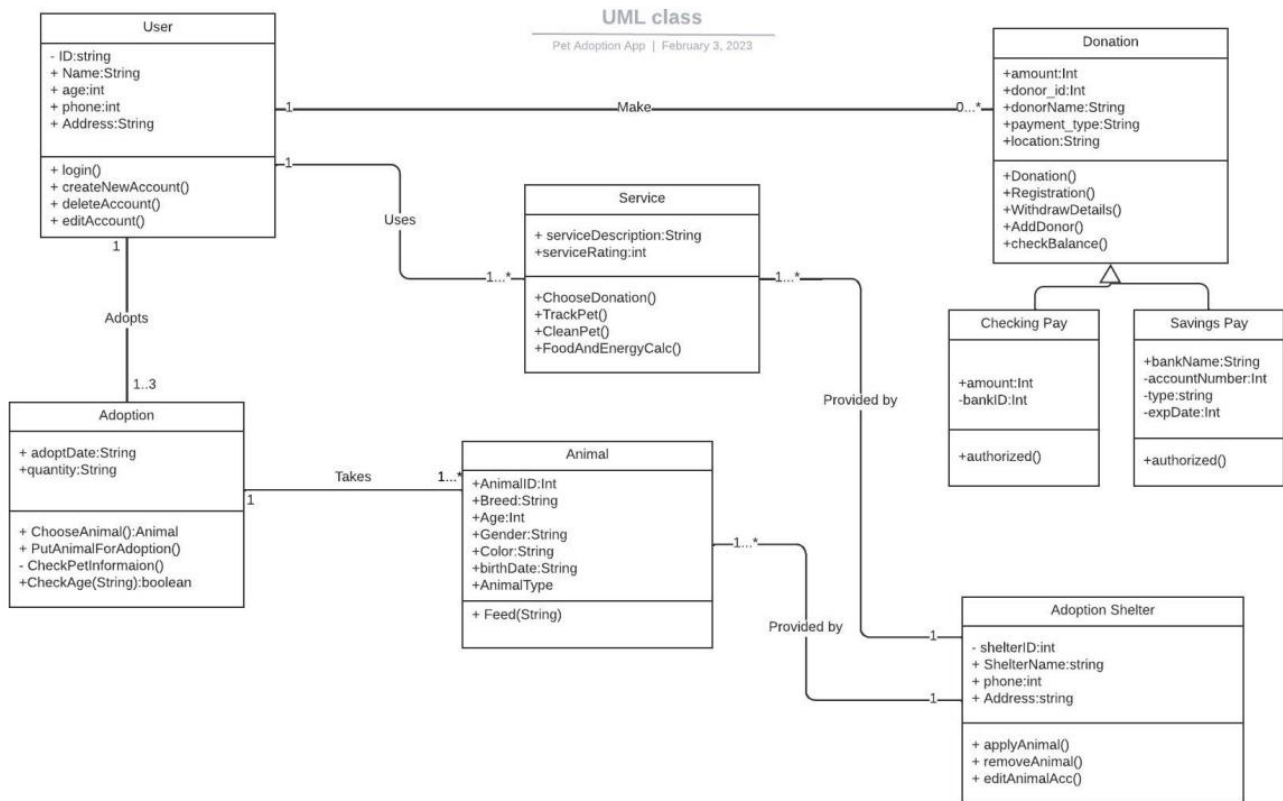
#### **Pet Adoption System:**

We are interested in designing a simplified Pet Adoption System that will allow users to adopt animals.

- users can:
  - choose an animal for adoption.
  - Put an animal for adoption.
  - Check pet Information.
  - make donations.
  - Track adopted animal.
  - clean adopted animal.
  - have food and energy calculations for free.
- Users have the option of making donations as much as desired.
- Users have the options of choosing to pay donations from either checking or savings.
- Each Service is provided by one and only one adoption shelter.
- A user can adopt at least from 1 to 3 animals maximum (such as: Cat, Dog, Bird).
  - For each user, the application will maintain ID, name, age, phone number, and an address.
- For each pet the system will keep track of their health condition.
- For each pet the system will maintain ID, breed, age, gender, color, and birthdate.
  - Users have the option to want their pet cleaned.
- Users have the option to get a food program for their pet by calculating the food and energy.
- There are a number of animals of different categories(such as: cat, dog, bird ...).
- The system maintains the ID, name, phone, address of the adoption shelter.
- The users have the option to check their balance.
- The users can create/edit/delete their accounts.
- For each donation process the system will maintain the donor ID, donor name, payment type, and amount.
- For each adoption process the system will maintain adopt date and quantity.
- Each animal is provided by one and only one adoption shelter.

- Adoption shelters can apply/remove animals.
- Adoption shelters can edit animal accounts.

## PART 2 CLASS DIAGRAM



## 7 Conclusion

At the end, a pet adoption app can provide numerous benefits to both pet adopters and animal shelters. Some of the key benefits include:

**Convenience:** With a pet adoption app, potential adopters can search for available pets, view photos and information about each pet, and submit an adoption application all from the convenience of their smartphone or tablet.

**Increased visibility:** A pet adoption app can help increase visibility for animal shelters and the pets they have available for adoption. The app can also help match potential adopters with pets that are the best fit for their lifestyle and preferences.

**Streamlined adoption process:** The adoption process can be streamlined and made more efficient with a pet adoption app. This can reduce the amount of time and effort required for both the adopter and the shelter staff.

**Better matching of pets and adopters:** A pet adoption app can help match potential adopters with pets that are the best fit for their lifestyle and preferences, based on factors such as age, breed, size, energy level, and personality.

**Improved communication:** A pet adoption app can provide a platform for real-time communication between potential adopters and shelter staff, making it easier for both parties to exchange information and ask questions.

**Access to resources:** Many pet adoption apps also provide access to educational resources and tips on pet care, training, and behavior, which can help ensure that adopted pets have successful and happy lives with their new families.

Overall, an pet adoption app can help make the pet adoption process easier, more efficient, and more successful for both adopters and animal shelters.

In this project:

We've learned how to design the UMLV class diagram and use case and other for the first time, which made it easy for us and exciting.

Also, one of the things we've learned is to be social and have flexibility in talking with other people in interviews, knowing their point of view , their like and dislikes and other things.

One of the difficulties we've faced is designing the UML class because I see that the relationships between every class and defining the attributes and every relation was hard for us at the beginning.