



King Saud University
College of Computer and Information Sciences
Information Technology Department
IT214 – User Experience Design
1st Semester 1445 H



Phase #4

54988

Section #	Name	ID
54988	Alhanouf AldakheelAllah	443200999
54988	Basmah Alrashid	442202996
54988	Dalal Alotaibi	443201040
54988	Joud Almutairi	443200544

Supervised by:

Dr. Nouf Alromaih

Table of Contents

1.	Introduction:.....	4
2.	Methodology:.....	4
3.	Results:.....	5
	Interview's results:.....	5
	Questionnaire's results:.....	5
4.	Personas:	8
5.	Solution:.....	9
6.	User Stories:.....	10
7.	Sketches:	12
8.	Story Board:	17
9.	User Flow:.....	27
10.	Design Rules:.....	38
	Learnability principle.....	38
	Flexibility principle.....	39
	Robustness principle	40
11.	Prototype	42
12.	Usability Testing	43
	12.1. Participants.....	43
	12.2. Procedure	43
	Outline of the procedure	43
	Timeline	43
	Tasks	44
	Performance Measures and Feedback.....	44
	12.3. Results.....	45
	Task Completion Success rate and Time on Task	45
	Errors.....	45

Summary of data	46
User satisfaction.....	46
13. Conclusion	50
14. Appendix A: Interview.....	51
Interview 1:	51
Interview 2:	52
Interview 3:	52
Interview 4:	53
Interview 5:	54
Interview 6:	55
Interview 7:	55
Interview 8:	56
15. Appendix B: Questionnaires	56
16. Appendix C: Usability Test.....	57
Consent Form.....	57
Facilitator Script.....	58
Satisfaction Questionnaire Form.....	59

1. Introduction:

Life can be hectic, and people have many things to keep track of. We understand the struggle of finding trustworthy places to entrust your pet. The process of searching for the best pet services can be time-consuming and stressful. We believe that technology can help reduce this problem and make life easier. With that in mind, we've come up with an app called "PetCare." Our app is designed to simplify the way you take care of your pets. You can browse all the shops in your city and check the products' availability, book grooming and vet appointments online, socialise with fellow pet owners, and manage your own pet's profile. Welcome to a world where pet care is made more accessible and enjoyable.

2. Methodology:

To learn more about our users, we've conducted our research by using interviews and questionnaire. Our sample consists of people living in Riyadh, Saudi Arabia, aged 18 and above.

We interviewed 8 random people who met our sample criteria. We asked them ten questions that could serve our topic. We asked about the challenges they face as pet owners, their experience in pet ownership, and their suggestions to make our app better.

We conducted an online survey for the questionnaire and shared it via social media for pet owners to collect as much responses as possible. It consists of eight closed questions to know their opinion about some of the app's features. 34 people had answered the questionnaire.

3. Results:

Interview's results:

After conducting interviews with eight individuals, we can say that most of them encounter challenges with finding the right veterinarian and groomer. Additionally, choosing products that offer both good quality and affordability is a challenge for them. Also, several interviewees expressed the need for appointment reminders to avoid forgetting important pet-related appointments. They like reading and writing store reviews to help each other out. They want to have access to pet healthcare advice staying updated with the latest product news. Overall, they believe that having a social network dedicated to pets would help them to lessen these problems and improve their experience with their pets.

Questionnaire's results:

After gathering 34 responses, the result of the questionnaire shows that 59% of the responders are aged between 18 and 28 years old (Figure 1), and 68% of them are females (Figure 2). Also, it shows that 88% of the sample have never used any pet-related app before (Figure 3). The questionnaire revealed that the majority are interested in pet adoption services where 76% answered “Yes” (Figure 4). Nearly everyone, 94%, wants to get tips and info about pet health (Figure 5). When it comes to using pet grooming services, it's almost an even split: 47% answered “Yes”, and 53% answered “No” (Figure 6). It shows that most people tend to miss their pet's veterinarian appointment, where 55% answered “Yes” (Figure 7). Finally, we found out that 79% of the responders are interested in connected with other pet owners through a social network (Figure 8).

1. How old are you?

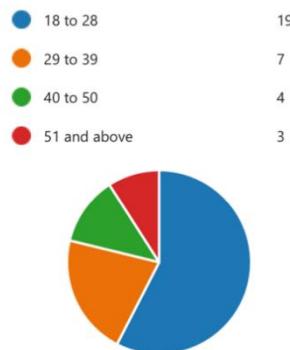


Figure 1 – question 1 (questionnaire)

2. Gender:

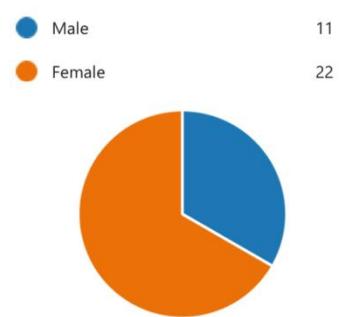


Figure 2 – question 2 (questionnaire)

3. Have you used a pet-related app before

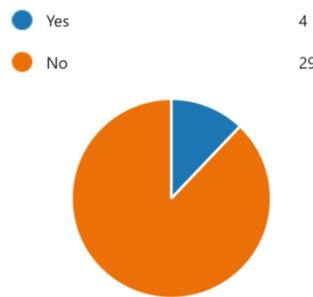


Figure 3 – question 3 (questionnaire)

4. Are you interested in pet adoption services through the app?



Figure 4 – question 4 (questionnaire)

5. Would you like to see pet healthcare tips and information on the app?



Figure 5 – question 5 (questionnaire)

6. Have you ever used a pet grooming services?



Figure 6 – question 6 (questionnaire)

7. Have you ever missed your pet's veterinarian appointment date?

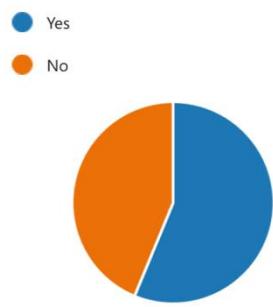


Figure 7 – question 7 (questionnaire)

8. Would you be interested in a feature that connects you with local pet events and meet-ups?

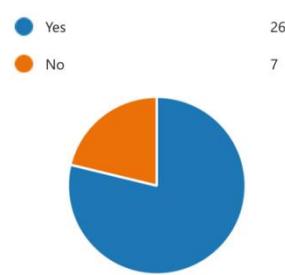


Figure 8 – question 8 (questionnaire)

4. Personas:

We chose our personas based on similar problems that have been shared by users. After analyzing both interviews and questionnaire results, we defined our first persona "Leen Abdulrahman" to be a 21-years-old student who wants to have an app for all of her pet's needs. We defined Leen based on interview 3, answers (2, 3). interview 5, answer (5). And the questionnaire (Figure 9).

The second persona is "Fahad Abdullah" is a 37-years-old man who wants to save his time. We defined Fahad based on interview 2, answers (2, 3). Interview 4, answer (2). And the questionnaire (Figure 10).

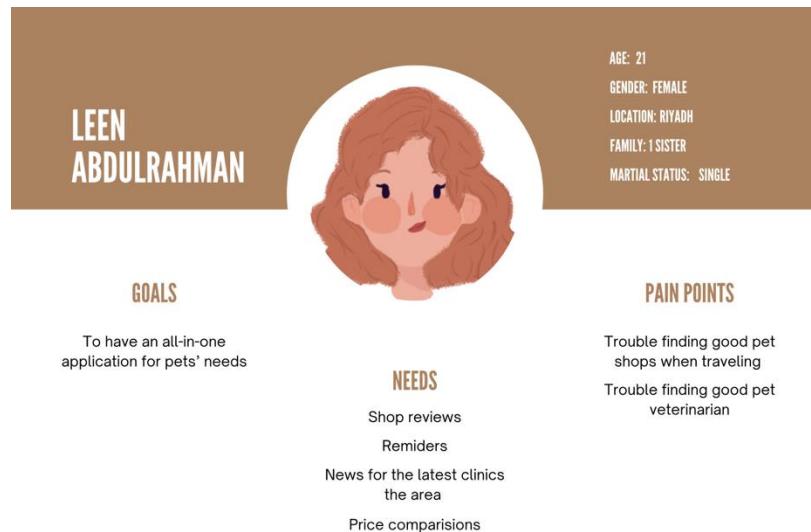


Figure 9 – Persona 1

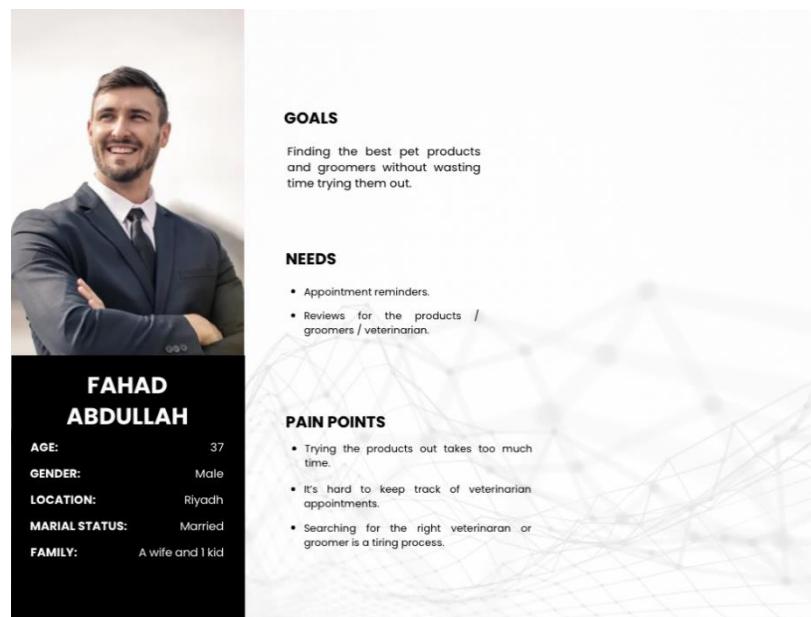


Figure 10 – Persona 2

5. Solution:

We talked to people and asked them questions. We learned what they really need, what makes them upset, and what they want. We want to make a page where people can see details about their pets, like their name, when they were born, and their medical history, including reminders of upcoming vet appointments. A social network to connect with other pet owners. There will be a map showing all the stores for pets in the city. People can read reviews and even book appointments. A section for pet adoption from shelters. Lastly, there will be a blog with useful pet health tips and new stuff for pets.

6. User Stories:

User story #1	
Summary	As a pet owner, I want to make a profile for myself, so that I can store and access all of my pet's information.
Details	<ol style="list-style-type: none"> 1. User clicks on the profile icon. 2. User creates an account by filling out the information. 3. User enters the number of pets they have and their information. 4. User can view and edit their information of themselves and their pets. 5. User can now book appointments and view them on the profile page.
Priority	High

User story #2	
Summary	As a pet owner, I want to learn about news and trends about pets. To make my experience better.
Details	<ol style="list-style-type: none"> 1. User clicks on the blog icon. 2. User chooses the suitable category of their interest. 3. User can view articles. 4. User can follow the blogger and bookmark the article and get notifications.
Priority	Medium

User story #3	
Summary	As a user, I want to browse adoption centers, so that I can adopt an animal.
Details	<ol style="list-style-type: none"> 1. User clicks on the adoption icon. 2. User will filter based on the animal type. 3. Available animals will show up with their information. 4. User chooses an animal. 5. User clicks on the animal details. 6. User chooses the suitable day and time to adopt the animal.
Priority	Medium

User story #4	
Summary	As a pet owner, I search for veterinarians so that I can find the best.
Details	<ol style="list-style-type: none"> 1. User clicks on the map icon. 2. User is prompted to enter their location. 3. Nearby veterinary clinics will appear on the map. 4. User will check the veterinary clinics's name. 5. User will check the veterinary clinics's reviews. 6. User will choose the suitable clinic. 7. The available appointment dates will appear for the user. 8. User will choose and book the suitable appointment.
Priority	High

User story #5	
Summary	As a pet owner, I want to connect with other pet owners, so that we can mutually benefit from each other's experiences.
Details	<ol style="list-style-type: none"> 1. User clicks on the social network icon. 2. User can see the profiles of other users. 3. User can interact with other users' posts by comments and likes. 4. User can post the content they want on the network.
Priority	Low

User story #6	
Summary	As a pet owner, I want to browse and purchase products from all the city's shops, so that I can discover the best options available.
Details	<ol style="list-style-type: none"> 1. User clicks on the map icon. 2. User is prompted to enter their location. 3. Nearby shops will appear on the map. 4. User will click on the shop. 5. User will browse and check the products. 6. User will choose the desired product. 7. User will pay for the product and choose the delivery method.
Priority	Medium

7. Sketches:

We made our sketches by using 'Sketch'.

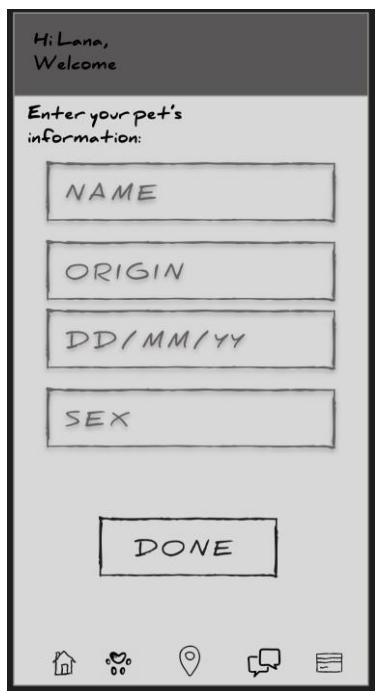


Figure 11.0 - Sketches of the profile page

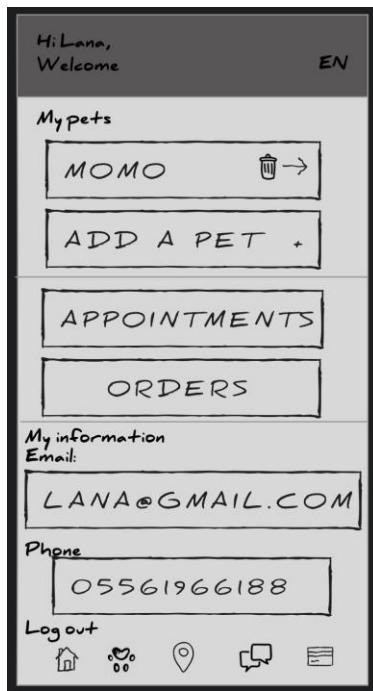


Figure 11.1



Figure 11.2

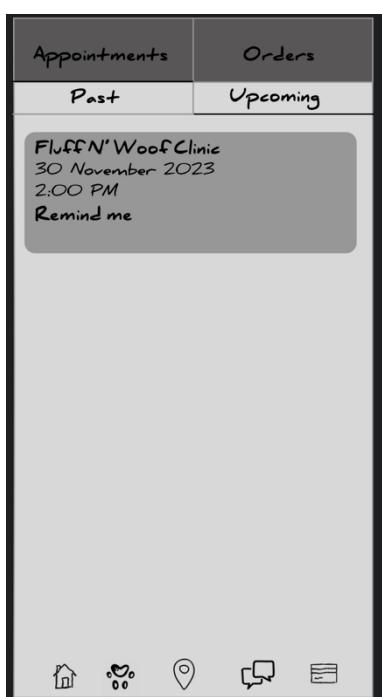


Figure 11.3

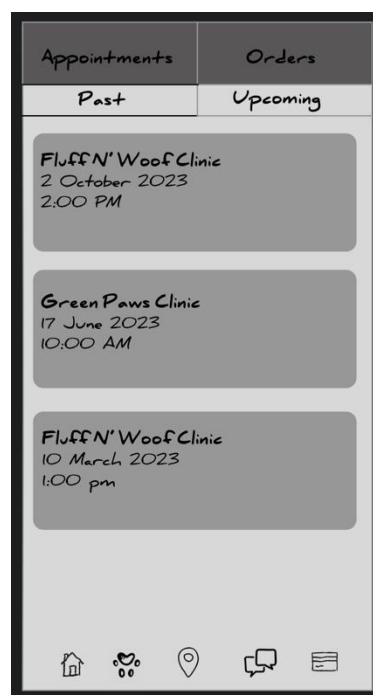


Figure 11.4

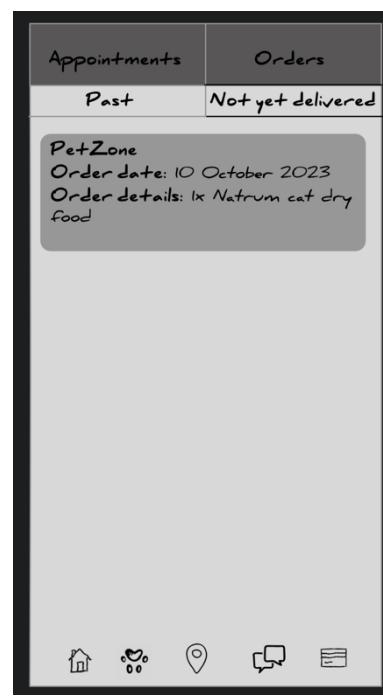


Figure 11.5

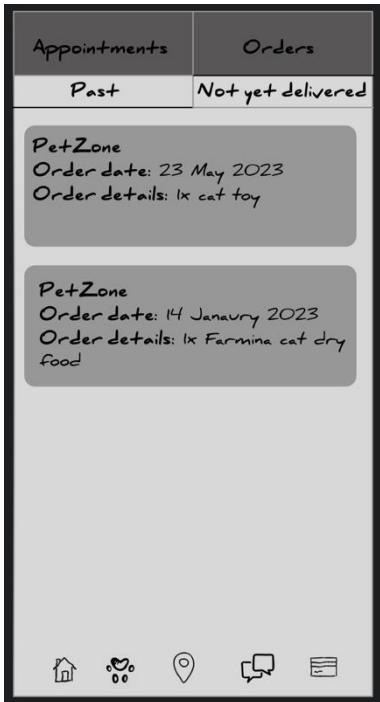


Figure 11.6

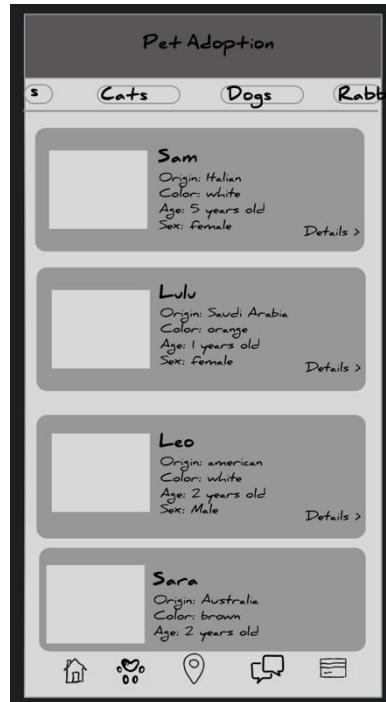


Figure 12.0 - Sketches of the adoption page

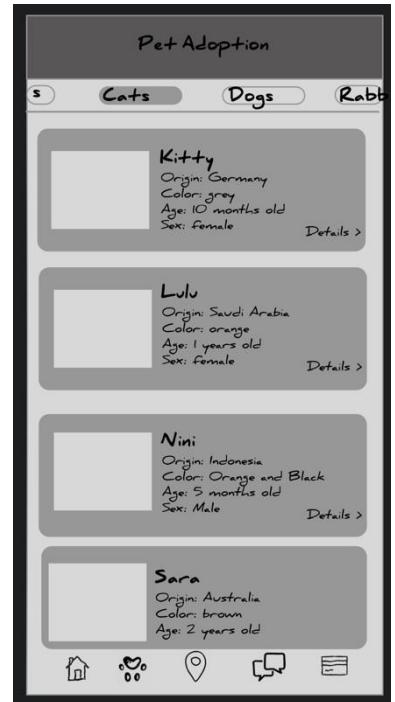


Figure 12.1

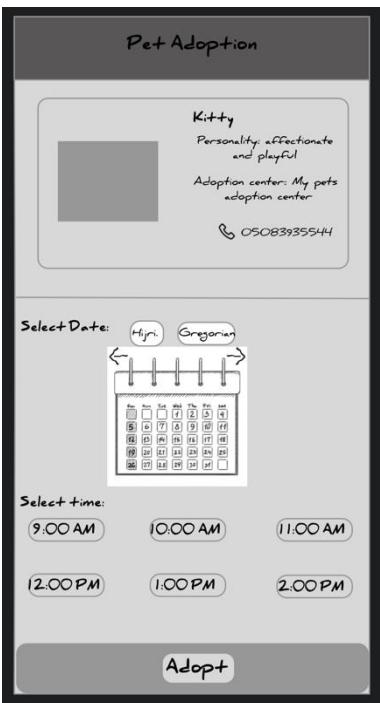


Figure 12.2



Figure 12.3

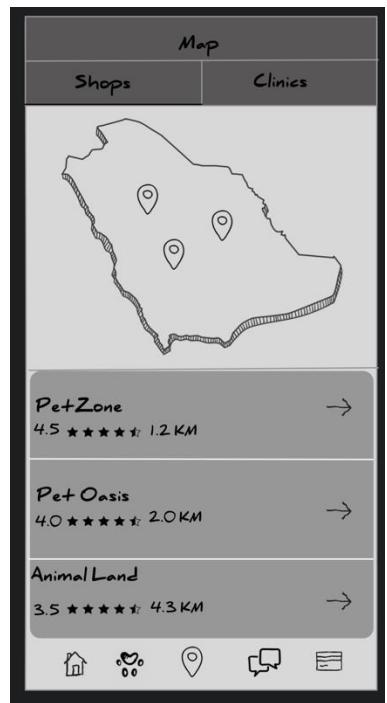


Figure 13.0 - Sketches of the shops section of the map

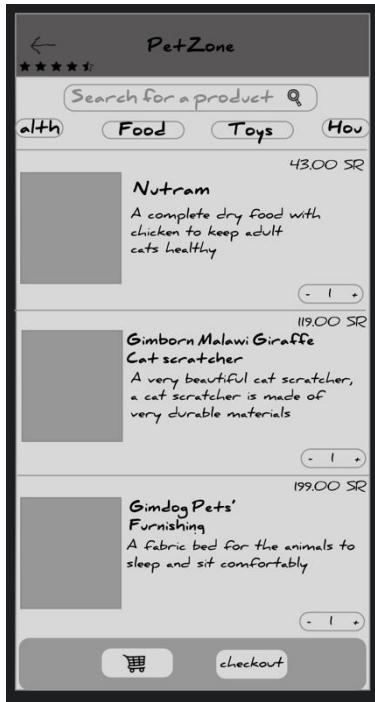


Figure 13.1

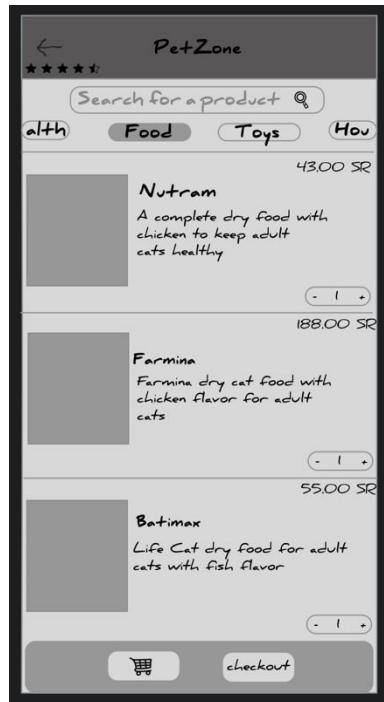


Figure 13.2

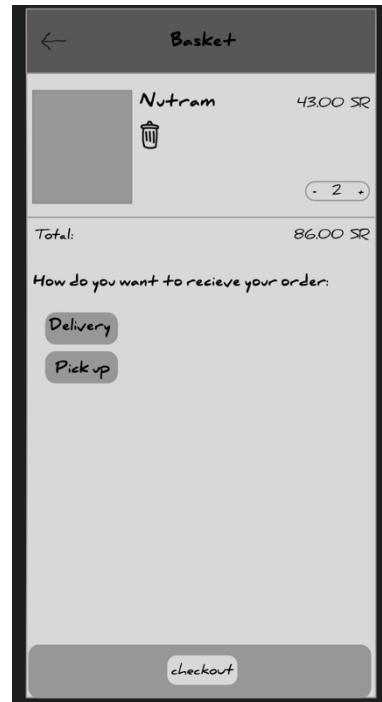


Figure 13.3



Figure 13.4

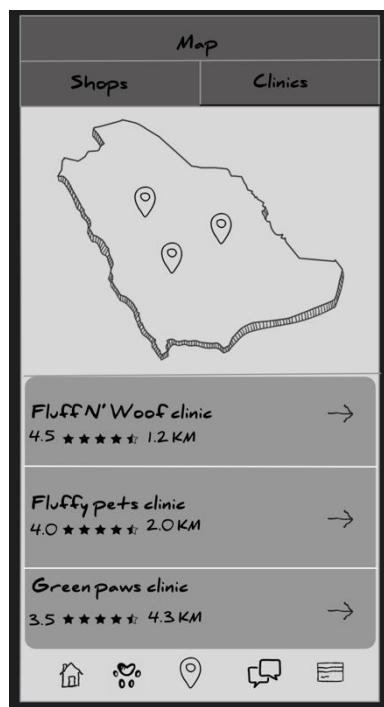


Figure 14.0 - Sketches of the clinics section of the map

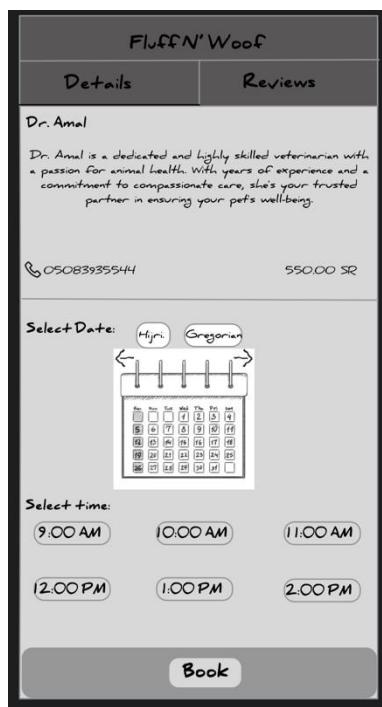


Figure 14.1



Figure 14.2

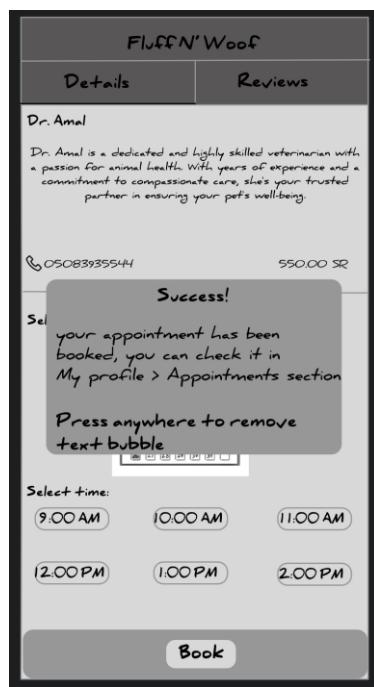


Figure 14.3



Figure 15.0 - Sketches of the social network page

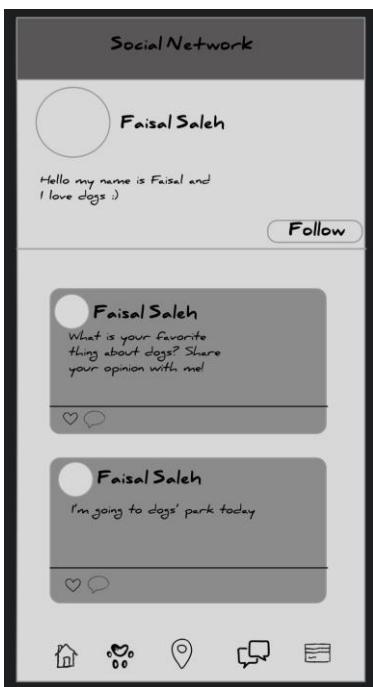


Figure 15.1

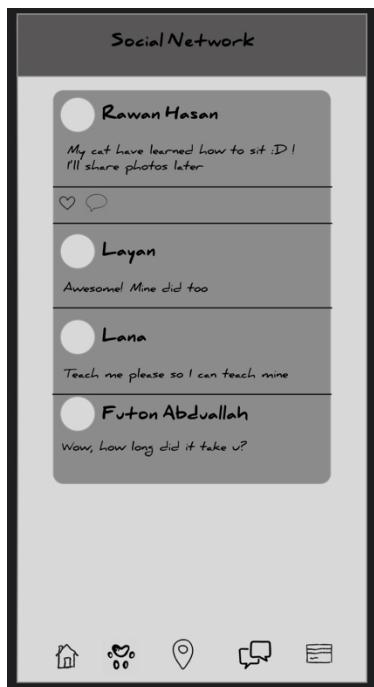


Figure 15.2

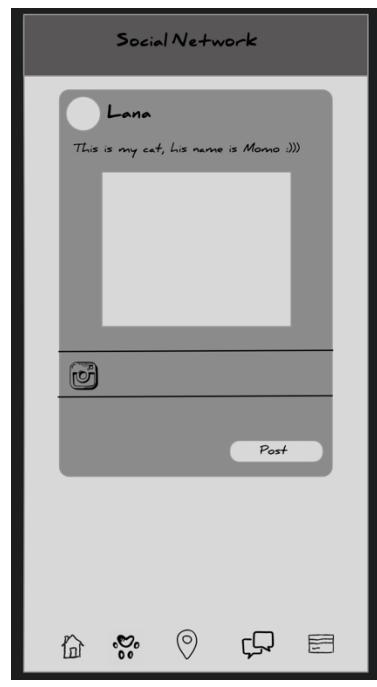


Figure 15.3

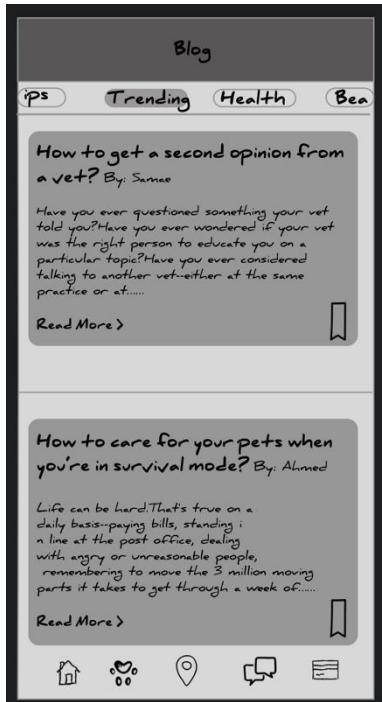


Figure 16.0 - Sketches of the blog page

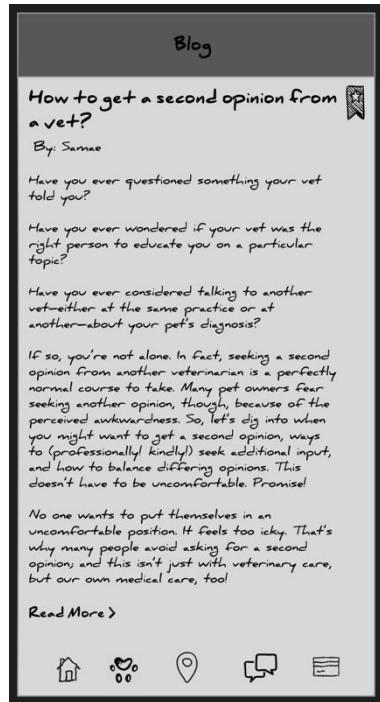


Figure 16.1

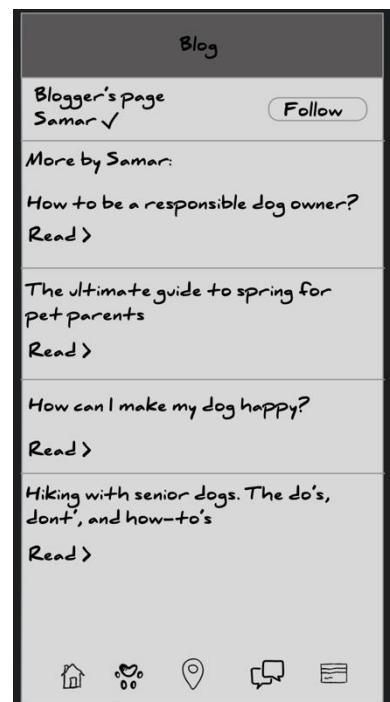


Figure 16.2

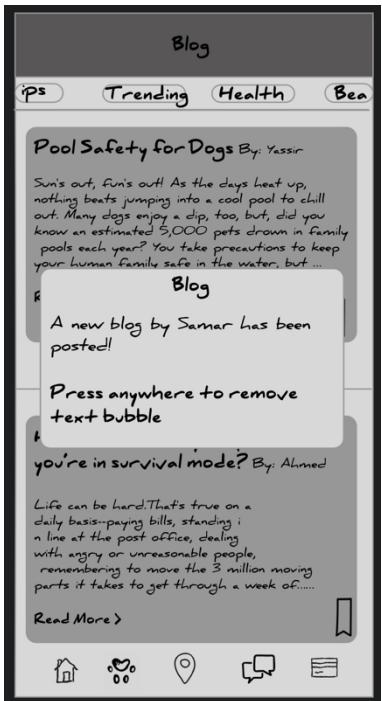


Figure 16.3

8. Story Board:

We made our storyboard using the website ‘Storyboard that’.



Figure 17.0 - A storyboard about the adoption feature



Figure 17.1



Figure 17.2



Figure 17.3



Figure 17.4



Figure 17.5



Figure 17.6



Figure 17.7



Figure 17.8



Figure 18.0 - A storyboard about booking appointments feature

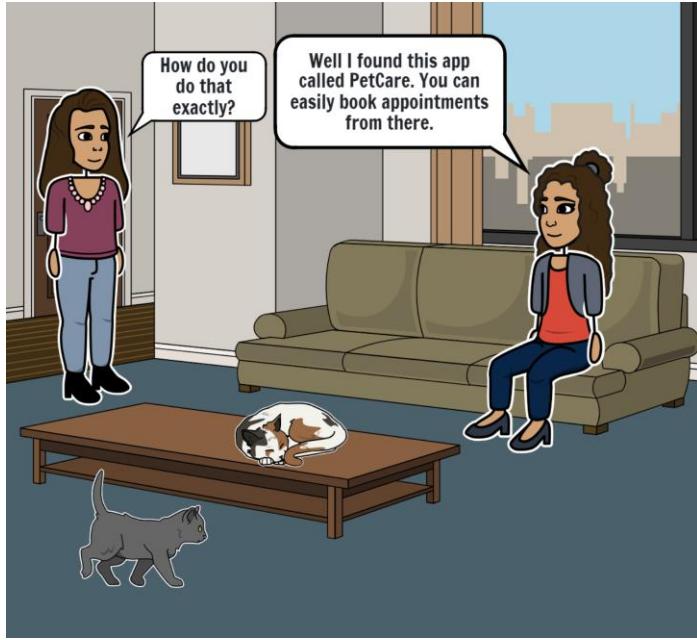


Figure 18.1



Figure 18.2



Figure 18.3

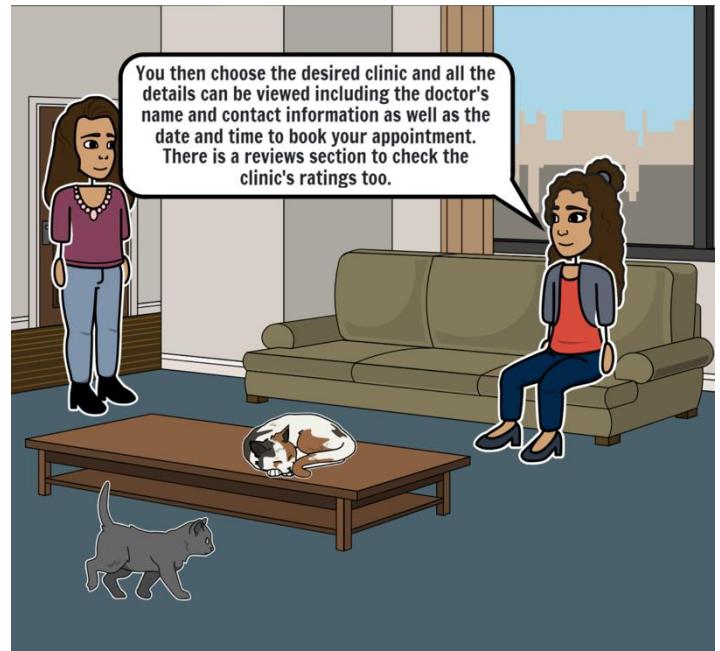


Figure 18.4



Figure 18.5

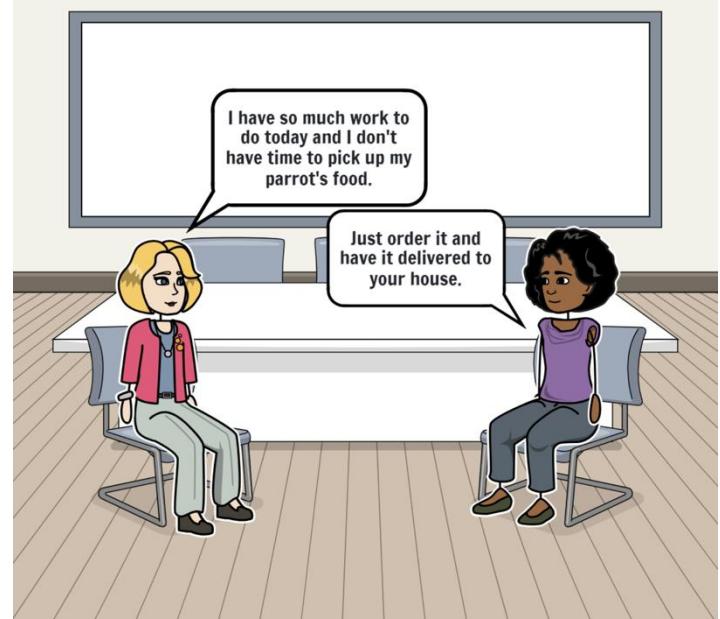


Figure 19.0 - A storyboard about ordering products feature



Figure 19.1

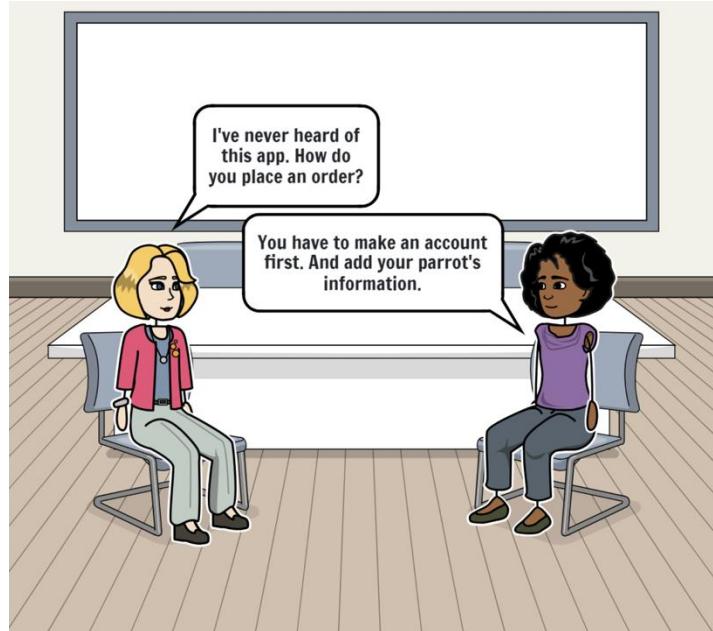


Figure 19.2



Figure 19.3

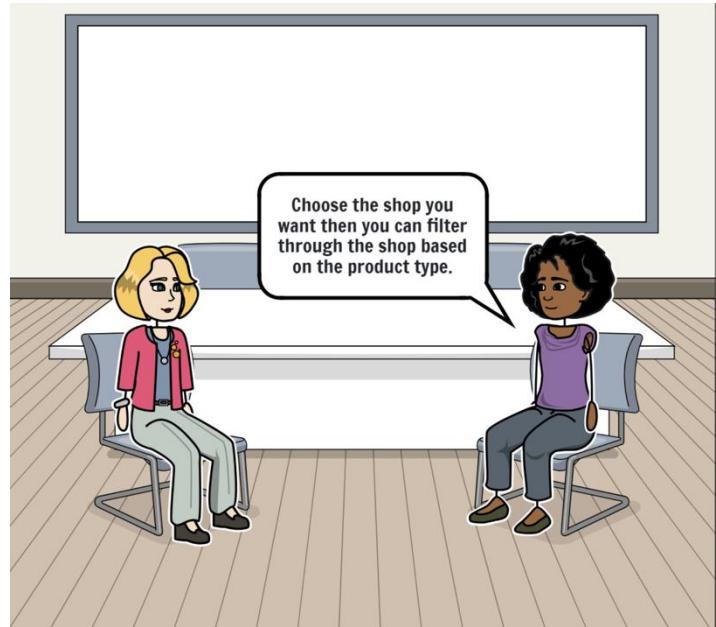


Figure 19.4



Figure 19.5



Figure 20.0 – A storyboard about the social network feature



Figure 20.1

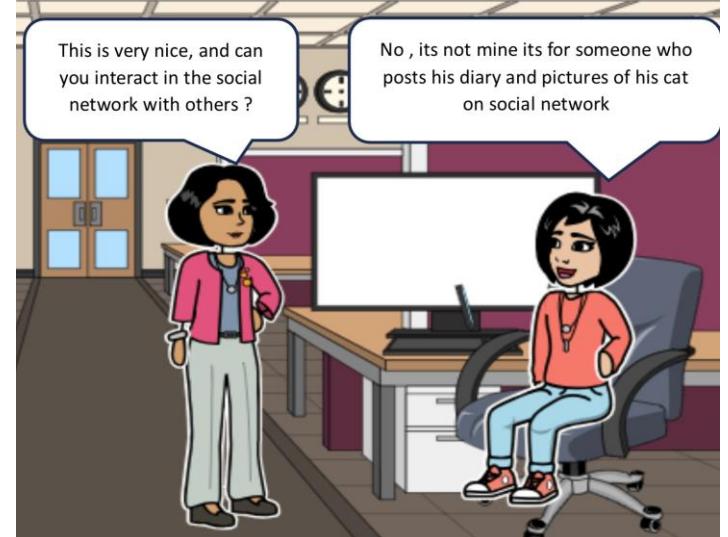


Figure 20.2

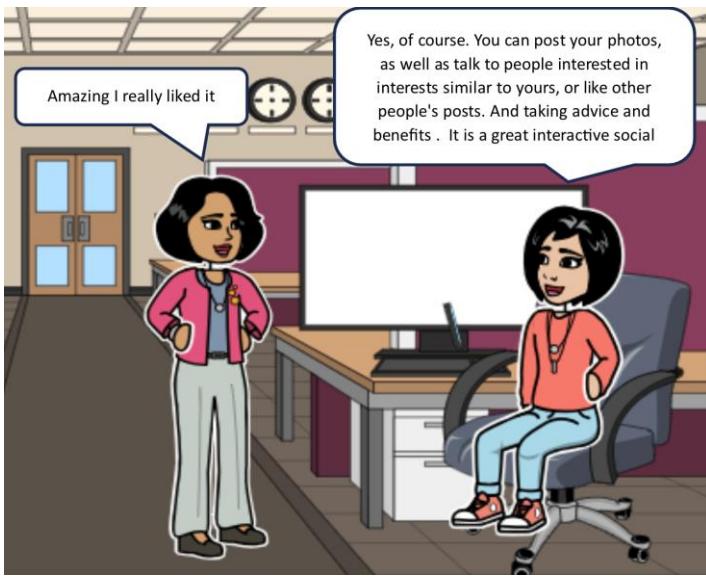


Figure 20.2



Figure 20.3



Figure 20.3



Figure 21.0 – A storyboard about the blog feature



Figure 21.1



Figure 21.2



Figure 21.3



Figure 21.4

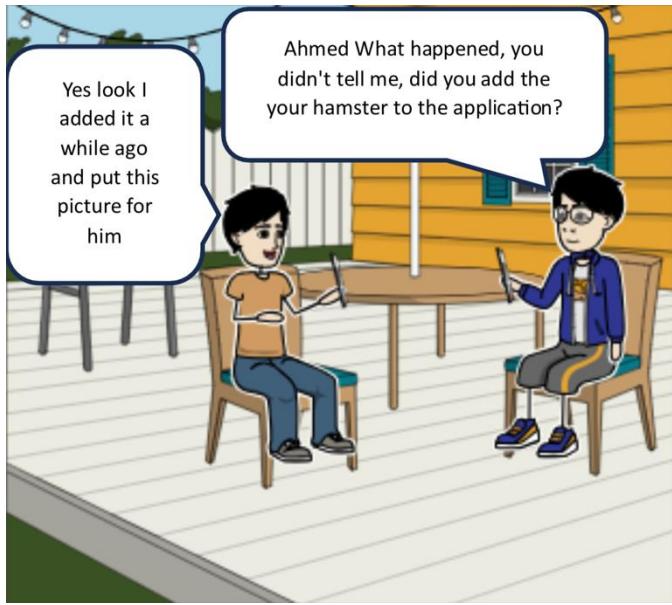


Figure 22.0 – A storyboard about the personal pet's profile



Figure 22.1

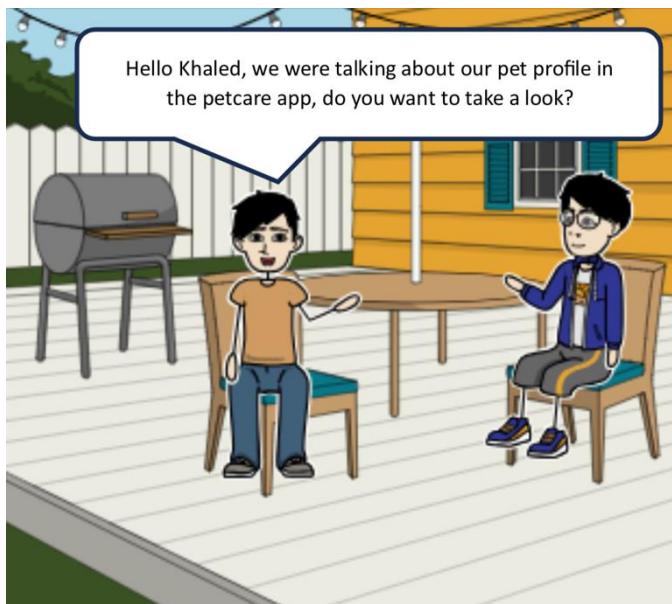


Figure 22.2



Figure 22.3

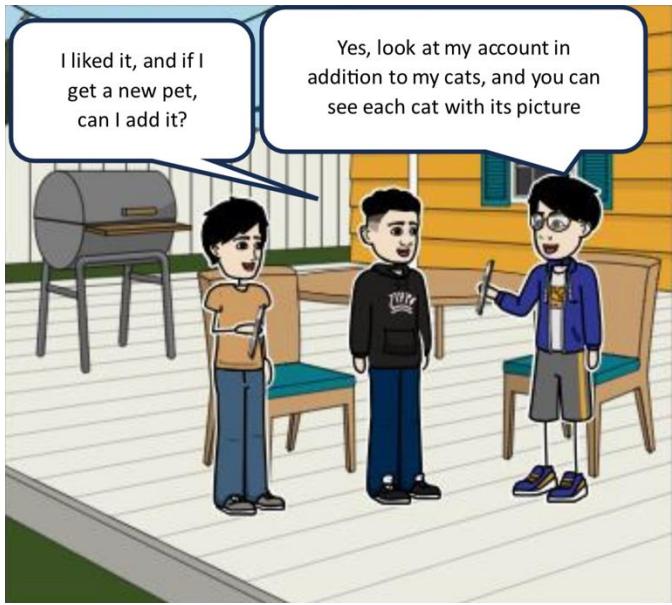


Figure 22.4

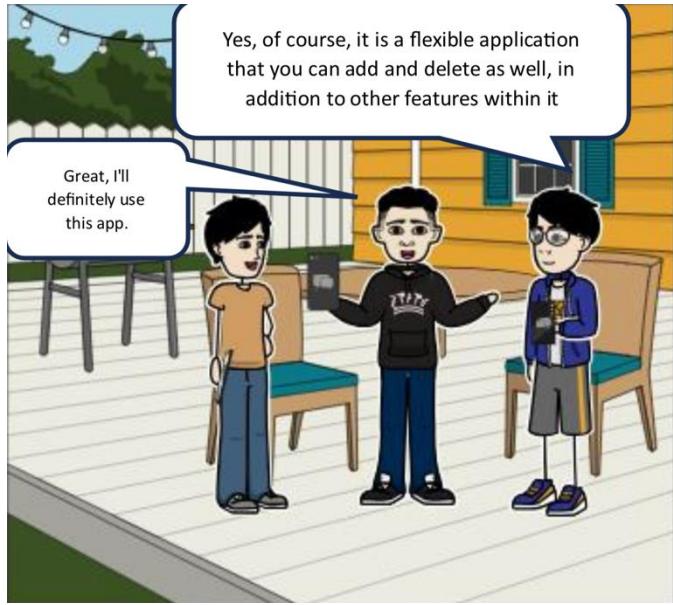


Figure 22.5

9. User Flow:

We made our User Flow by using ‘Canva’.

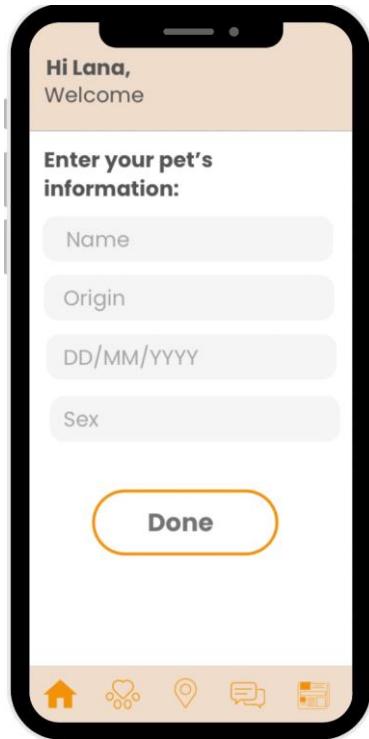


Figure 23.0 – User flow of user story
No.1

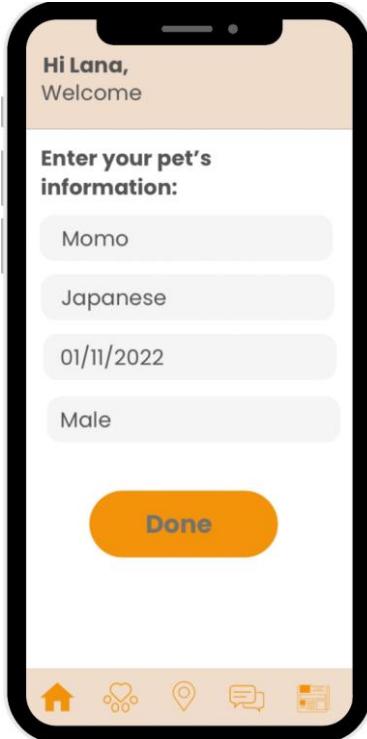


Figure 23.1

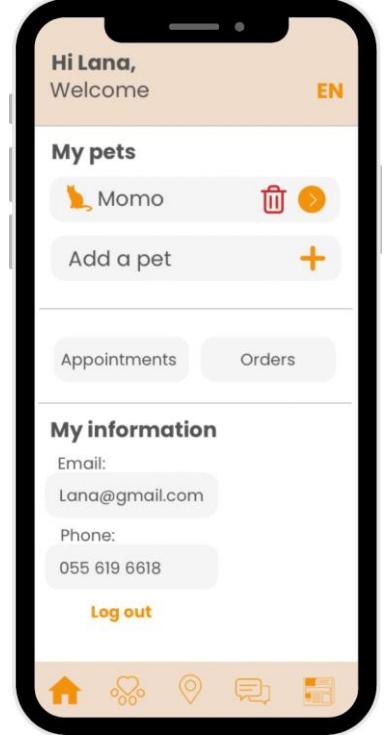


Figure 23.2

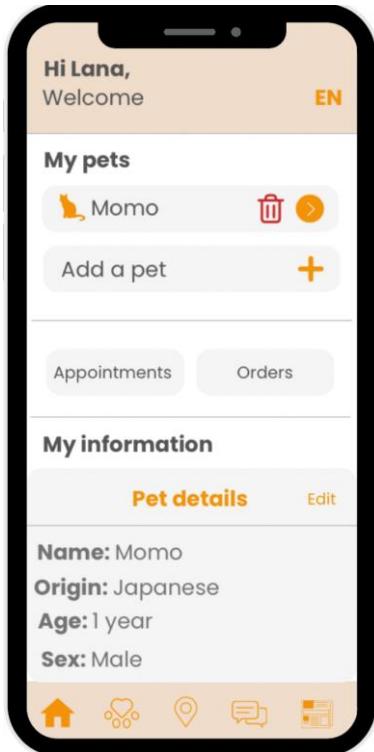


Figure 23.3

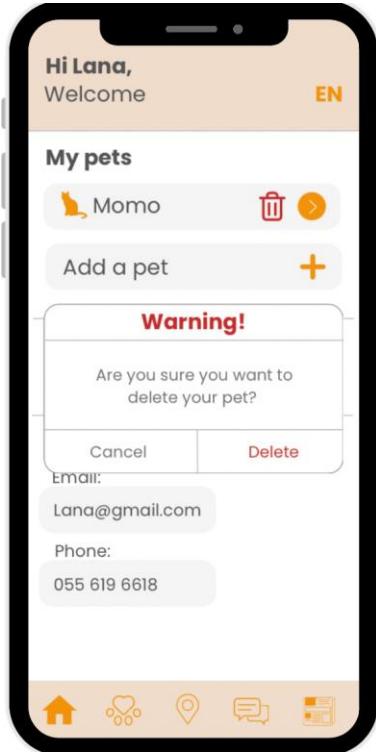


Figure 23.4

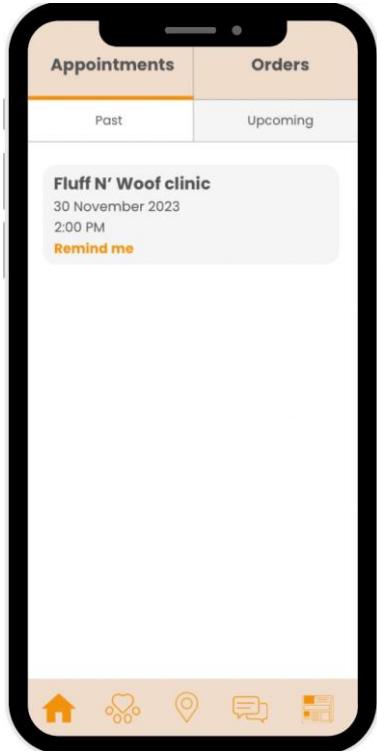


Figure 23.5

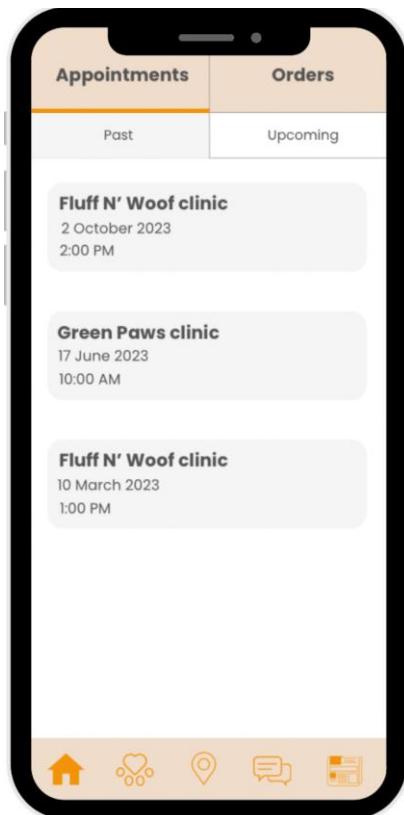


Figure 23.6

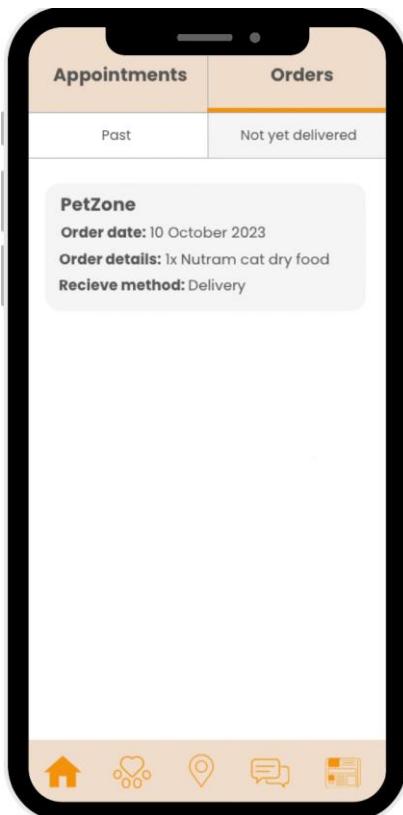


Figure 23.7

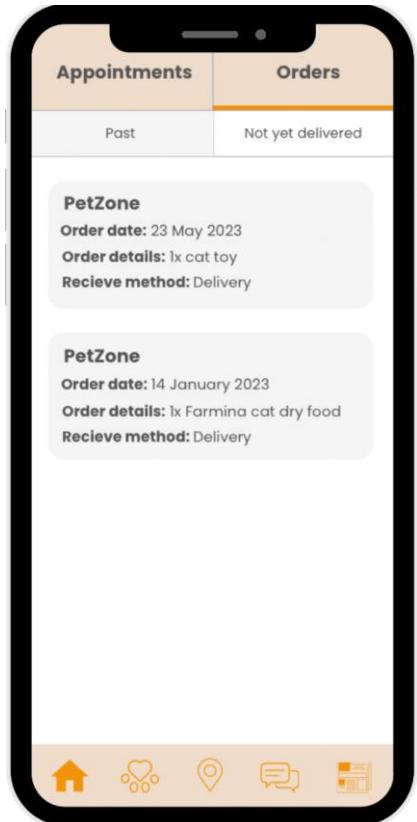


Figure 23.8

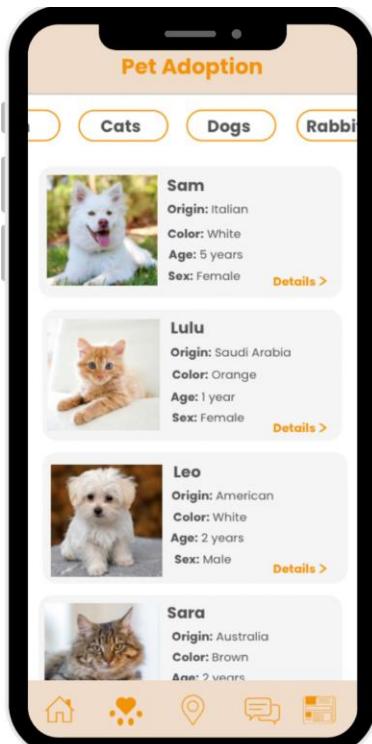


Figure 24.0 – A user flow of user story
No.3

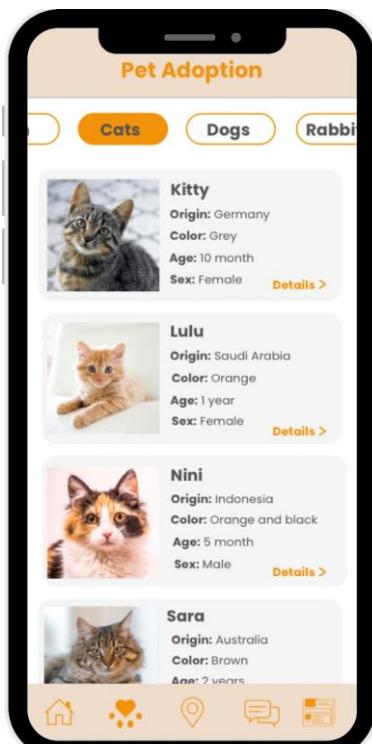


Figure 24.1

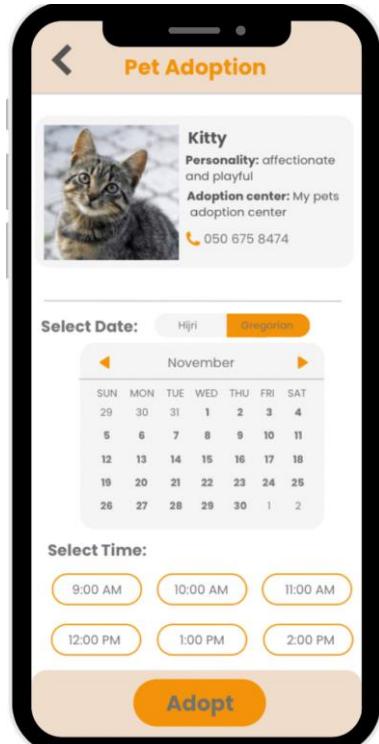


Figure 24.2

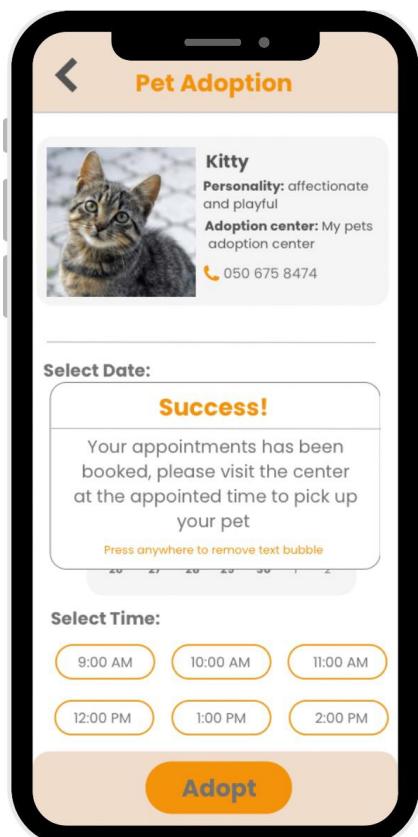


Figure 24.3

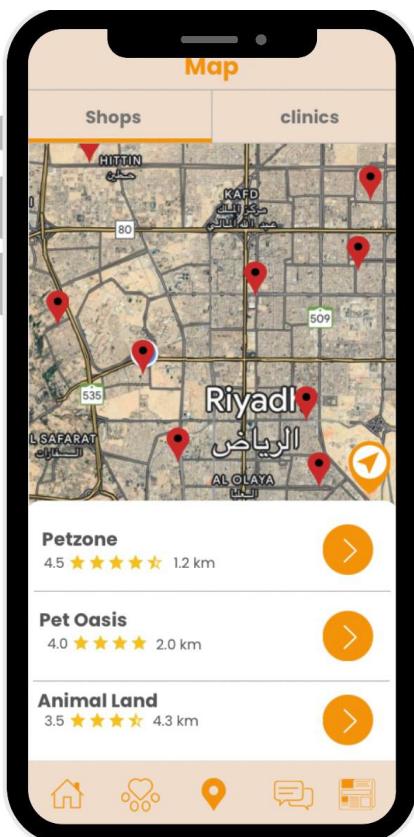


Figure 25.0 – A user flow of user story No.6

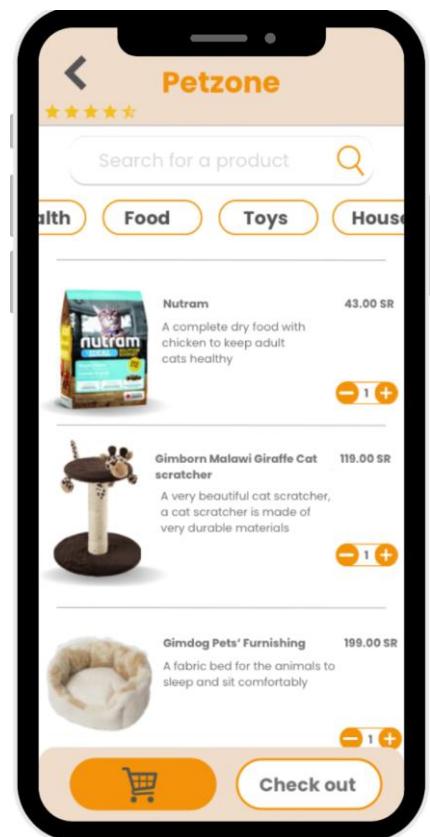


Figure 25.1

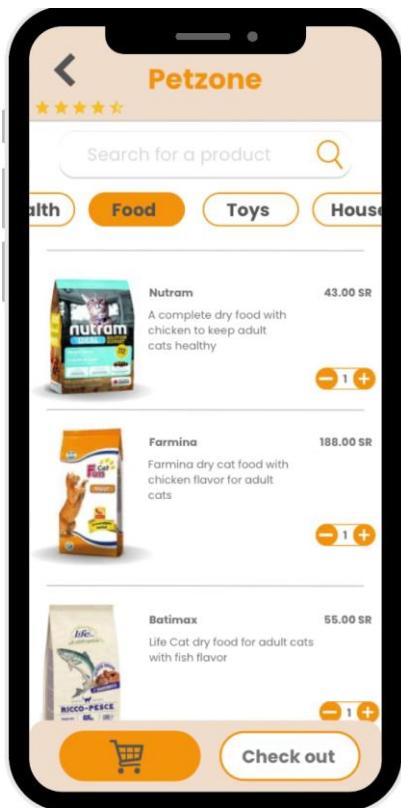


Figure 25.2

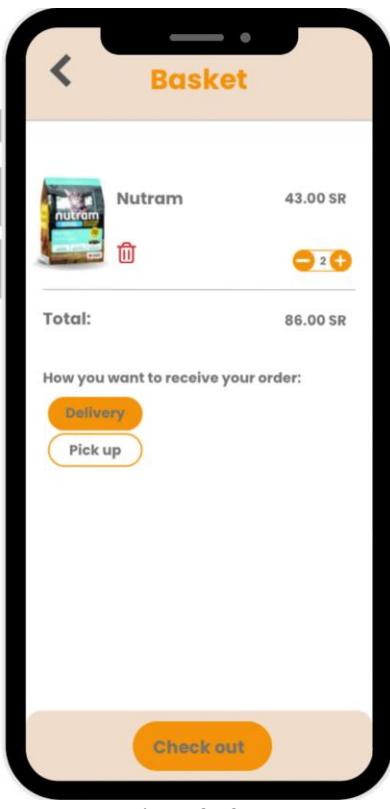


Figure 25.3

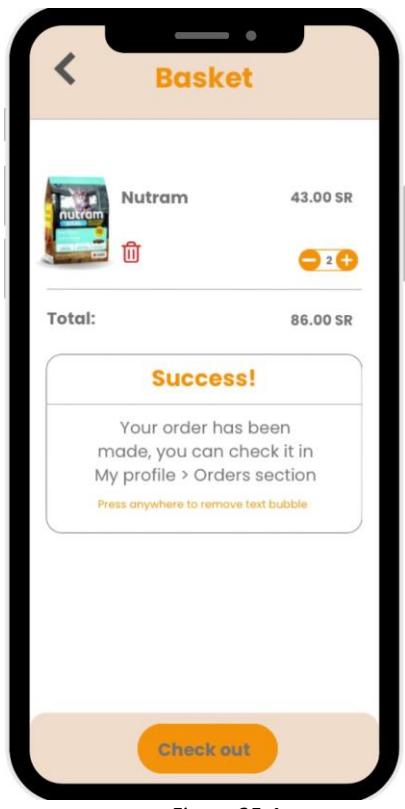


Figure 25.4

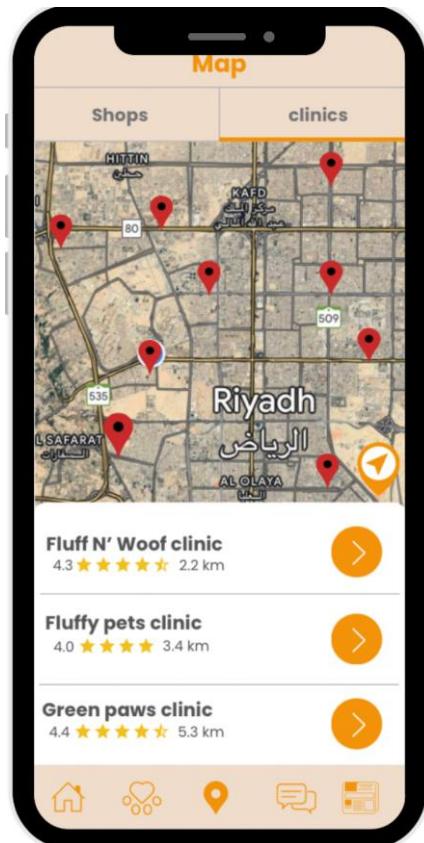


Figure 26.0 – A user flow of user story
No.4

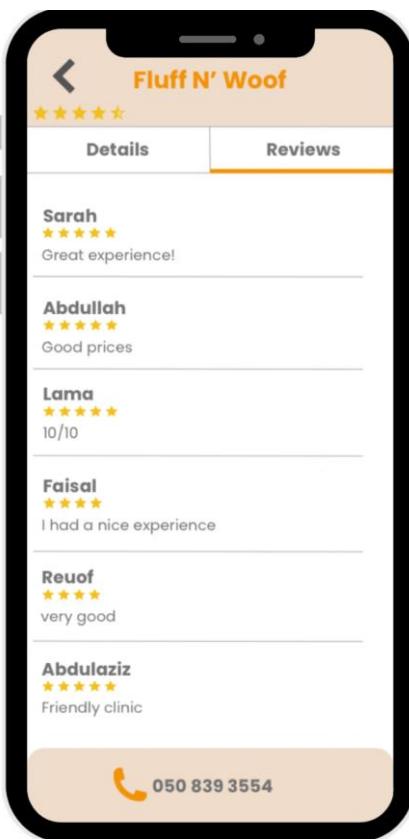


Figure 26.1

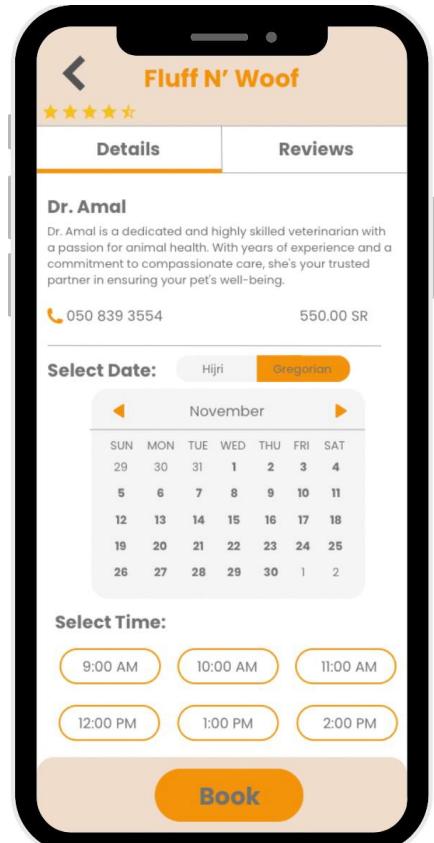


Figure 26.2

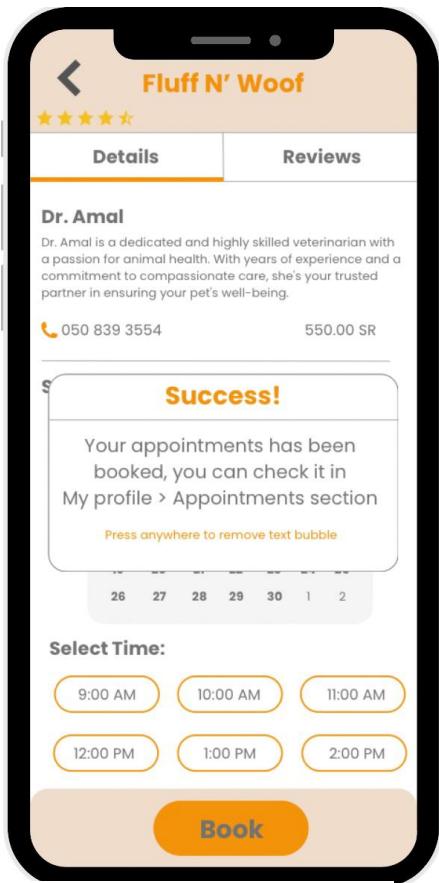


Figure 26.3

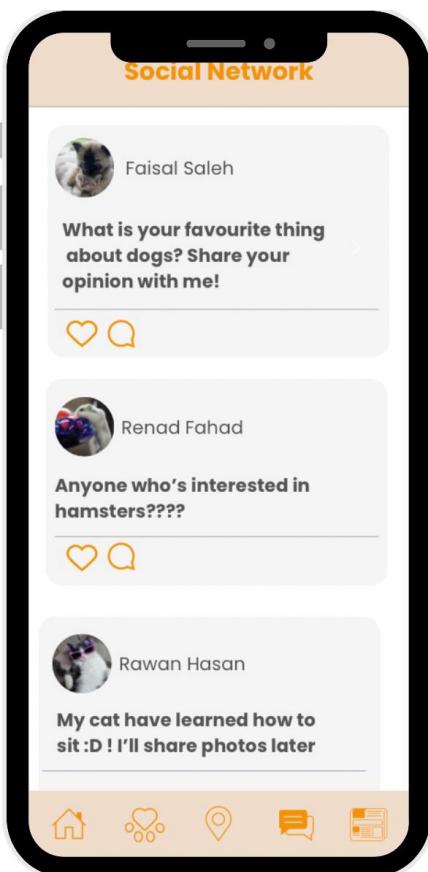


Figure 27.0 – A user flow of user story
No.5

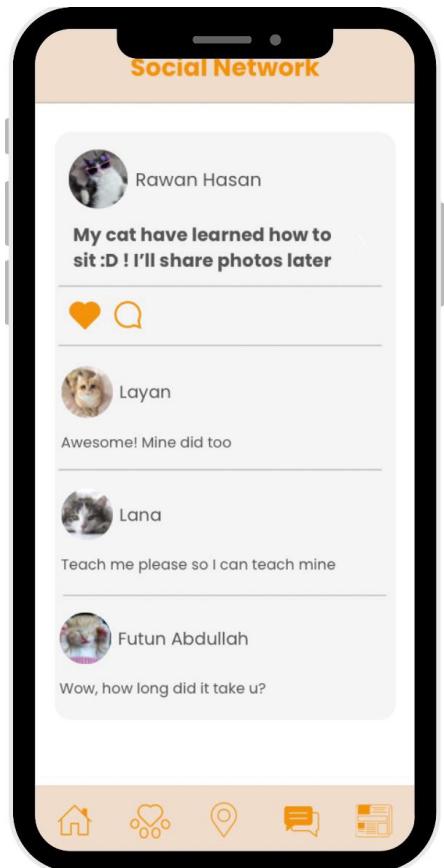


Figure 27.1

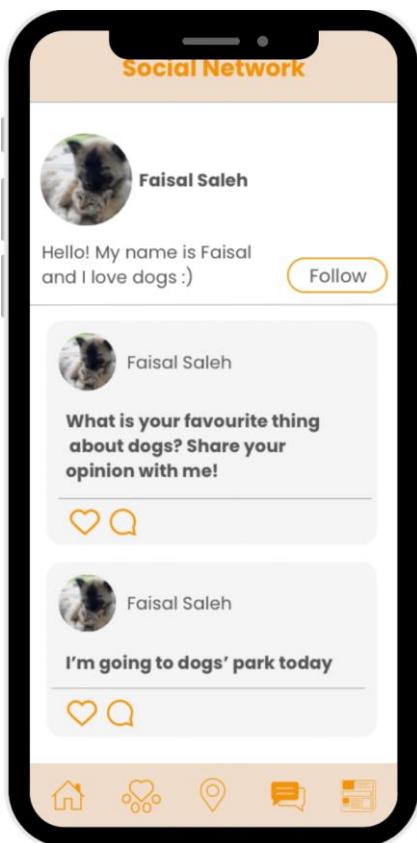


Figure 27.2

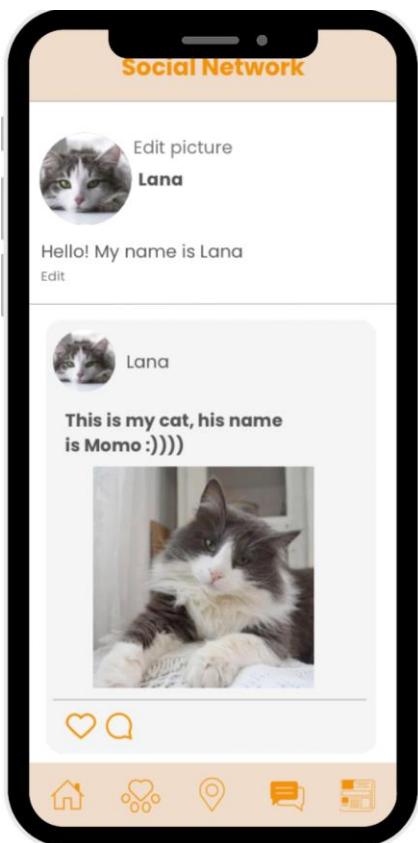


Figure 27.3

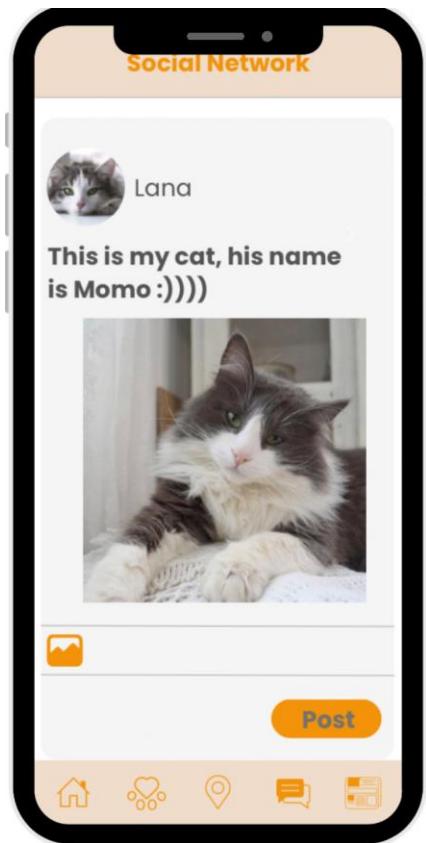


Figure 27.4

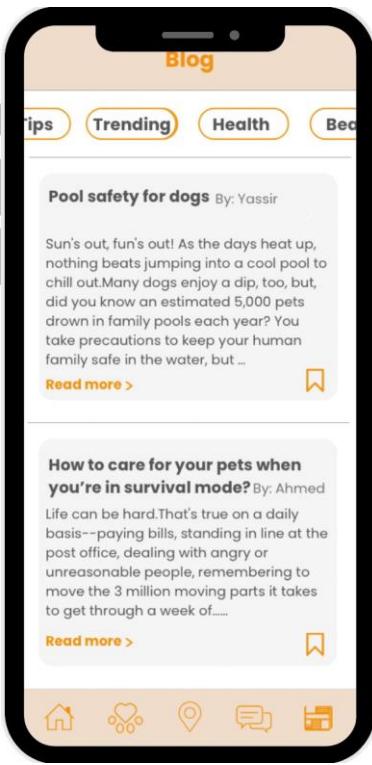


Figure 28.0 – A user flow of user story
No. 2

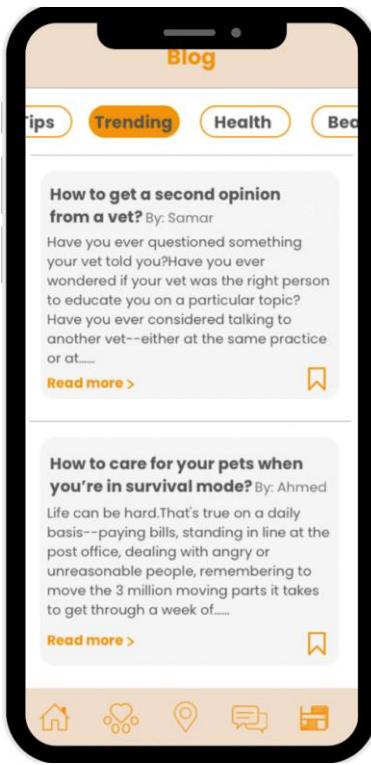


Figure 28.1

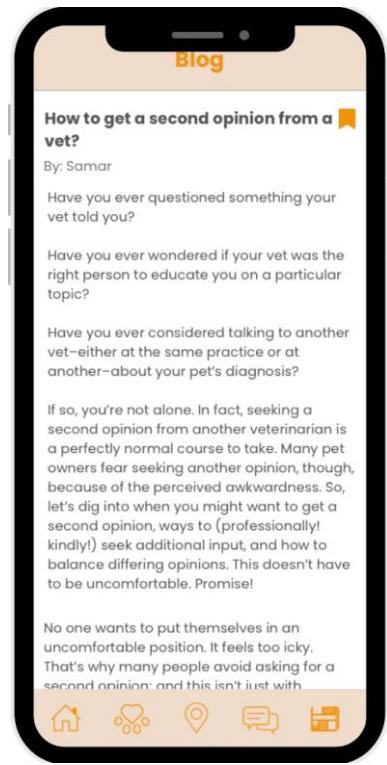


Figure 28.2

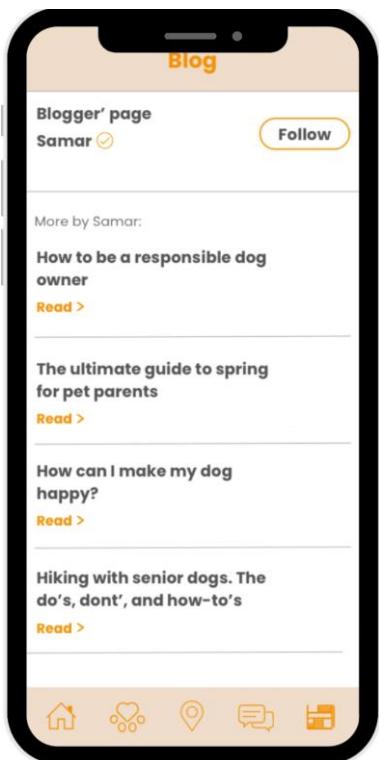


Figure 28.3

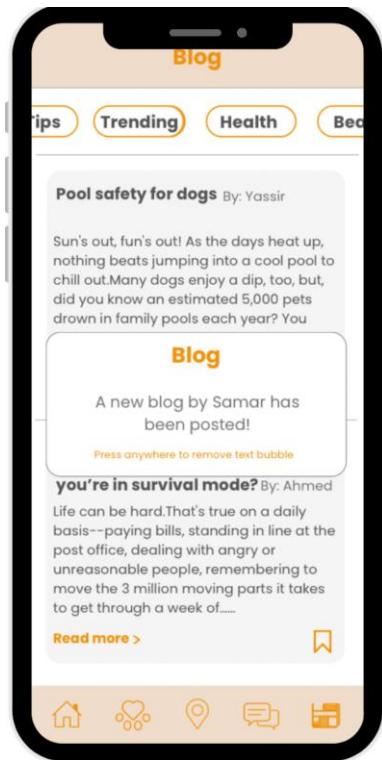


Figure 28.4

10. Design Rules:

Learnability principle

Rule#	Principle		Sketch No/ User Flow No/	How we applied this principle
1	Predictability		User flow No.23.2	The user can predict that pressing the "plus sign" button will add a new pet.
2		Operation visibility	User flow No.23.0	The user can't press "Done" until they write all their pet's information.
3	Synthesizability		User flow No.25.4	When the user places an order, they immediately receive a confirmation message.
4	Familiarity		User flow No.25.1 User flow No. 23.2	The shopping cart icon is a metaphor of a real-life object. Using the plus icon to add a pet is a familiar icon to the user.
5	Generalizability		User flow No.25.1	The shopping page is similar to most shopping applications and websites.
6	Consistency		User flow No.23.0	Consistency in icon layout down the screen

Flexibility principle

Rule#	Principle	Sketch No/ User Flow No/	How we applied this principle
7	Dialog initiative	User flow No.26.3 Sketch No. 11.2	The user must click anywhere to remove the pop-up message that appears when they book an appointment. (system preemptive) The user has the ability to perform anything available, such as update the pet's information.
8	Multi-threading (if applicable)		Not applicable
9	Task migratability (if applicable)		Not applicable.
10	Substitutivity	User flow No.26.2	The user can switch the calendar of the app to either Hijri or Gregorian.
11	Customizability	User flow No.27.3	The user can choose their profile picture in the social network.

Robustness principle

Rule#	Principle		Sketch No/ User Flow No/	How we applied this principle
12	Observability	Browsability	User flow No.23.7	In the profile page, the purchased products' delivery details can be tracked.
13		Defaults	User flow No.23.2	The system's language is English by default.
14		Reachability	User flow No.23.2	User can navigate through the app by tapping icons at the bottom of the screen.
15		Persistence	User flow No.28.4	User receives notifications when a new blog has been posted.
16	Recoverability		23.4	If the user accidentally tries to delete a pet's information a pop-up message will appear to ensure if the action was meant to be done.
17	Responsiveness		User flow No.26.3	When an appointment is booked, a message appears confirming that

			that it has been successfully booked.
18	Task Conformance	User flow No.26.3, 27.4, 25.4	The user can perform many tasks such as booking appointments, purchasing products, posting online, etc.

11. Prototype

We designed the prototype by using “Figma”. And made the youtube video by using “RenderForset”.

Within the prototype, we implemented several important features:

1. **User and pet account creation:** Users can set up their profiles, both for themselves and their pets, where they can find all the information.
2. **Map for pet-related locations:** It's a map feature that allows users to discover nearby pet clinics and shops and browse them.
3. **Pet adoption:** Users can adopt pets through the app, making it convenient and simple.
4. **Social network for pet owners:** A social networking page, it enables users to connect and communicate with others who share the same interest for pets.
5. **Pet news blog:** A blog section where users can access the latest pet news and information.

These features were added to make the prototype user-friendly for pet lovers.

Youtube video: [Youtube link](#)

Prototype design: [PetCare - Figma](#)

12. Usability Testing

12.1. Participants

Participant name	Age	Gender	Experience with similar products (1-5)	Use of mobile/website interface (1-5)
Renad	19	Female	3	5
Maha	21	Female	5	5
Saud	22	Male	3	5
Ahmad	27	Male	2	4
Reem	30	Female	4	5
Noha	34	Female	1	3

12.2. Procedure

Outline of the procedure

For the PetCare application usability test, we selected 6 random participants from our research sample to conduct the test. We prepared the consent form, the questionnaire, the facilitator script and the tasks that participants will perform during the sessions.

Participants were informed in advance about the scheduled session, including the time and place. We introduced ourselves to the participants, read the facilitator script to them, and provided them with the consent form to take their confirmation for video and audio recording. We gave them 4 tasks and asked them to think aloud during the testing and tell us what they were doing and why they were doing it this way. And lastly complete the satisfaction questionnaire.

Timeline

Participant name	Day	Date	Start session time	Finish session time	Duration of session
Renad	Wednesday	1/11/2023	5:00 PM	5:20 PM	20 minutes
Maha	Wednesday	1/11/2023	5:25 PM	5:40 PM	15 minutes
Saud	Thursday	2/11/2023	5:00 PM	5:22 PM	22 minutes
Ahmad	Thursday	2/11/2023	5:25 PM	5:50 PM	25 minutes
Reem	Friday	3/11/2023	5:00 PM	5:17 PM	17 minutes
Noha	Friday	3/11/2023	5:20 PM	5:55 PM	30 minutes

Tasks

Task #	Task	Objective of the task
1	Buy one product	Check if the user can navigate and purchase a product easily.
2	Book an appointment at a clinic	Check the clarity of booking an appointment, and check if the user can complete the task successfully.
3	Share a post on the social network	Check if the user can share a post on their social network using the app's designated feature.
4	Adopt a pet	Check if the user understands the process of adopting an animal through the app and navigate through the adoption page successfully.

Performance Measures and Feedback

Metric	How was it measured?	How was the data created/captured?
Effectiveness	Task success	By observing the participants during the sessions and count the number of tasks completed successfully.
	Number of errors	By observing the participant during the sessions and count the number of errors per task.
Efficiency	Time on task	By setting a timer during sessions to measure the time needed by the participant to finish the task. Then we calculate the average time.
Satisfaction	User surveys	By making a survey and giving it to the participant to fill when they finish the tasks. Then we calculate the satisfaction rate.

12.3. Results

Task Completion Success rate and Time on Task

Participants	Task 1		Task 2		Task 3		Task 4	
	Complete Task	Time on Task						
1	✓	5 m	✓	6 m	✓	2 m	✓	7 m
2	✓	3 m	✓	5 m	✓	1 m	✓	6 m
3	✓	4 m	✓	6 m	✓	3 m	✓	9 m
4	✓	5 m	-	-	✓	2 m	✓	10 m
5	✓	3 m	✓	5 m	✓	2 m	✓	7 m
6	✓	6 m	✓	9 m	✓	4 m	-	-
Success	6/6		5/6		6/6		5/6	
Completion Rates	100%		83.3%		100%		83.3%	
Average Time on Task	4.3 m		5.1 m		2.3 m		6.5 m	

Errors

Tasks	Number of errors	Errors description	Critical or non-critical (C,NC)
Task 1	1	The user can't select the desired delivery time.	Non-critical
Task 2	1	The user can't cancel an appointment from the app, he must call the clinic to cancel.	Non-critical
Task 3	1	The user gets confused between the social network icon and the blog icon.	Non-critical
Task 4	2	The adoption icon doesn't indicate that it's for the adoption feature.	Non-critical
		The user can't find the adoption center's location within the app.	Non-critical

Summary of data

Tasks	Task Completion	Errors	Time on Task
Task 1	100%	1	4.3 m
Task 2	83.3%	1	5.1 m
Task 3	100%	1	2.3 m
Task 4	83.3%	2	6.5 m

User satisfaction

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean Rating	Percent Agree
All the functions are clear and easy to use.			1	3	2	4.16	83.3%
The interface is familiar and similar to common interfaces.			1	5		3.83	83.3%
The design is consistent.			1	4	1	4	83.3%
The app provides clear instructions on how to perform various tasks.		3	3			2.5	0%
I would recommend the app to others.			3	2	1	3.6	50%

12.4. Discussion

The usability test provided valuable insights into the application's functionality. We noticed that task 4 took the longest to complete, while task 3 took the shortest to complete. There was one error in tasks 1, 2, and 3, and 2 errors in task 4, all are non-critical errors. We found them as opportunities to improve our app and how we label important features. By addressing these errors, we aim to ensure users can effortlessly accomplish their tasks with no critical errors detected during using the app.

Question 4, "The app provides clear instructions on how to perform various tasks," received a 0% agreement rate, indicating low satisfaction. We chose not to include any instructions to our app because we designed the interface to be clear and consistent to other interfaces common to the user.

Non-critical errors:

Task 1: Buy one product.

The task requires the participant to open the map page and choose a store then buy a product, the user can choose between picking up his order or having it delivered but can't choose the desired delivery time (Figure 29).

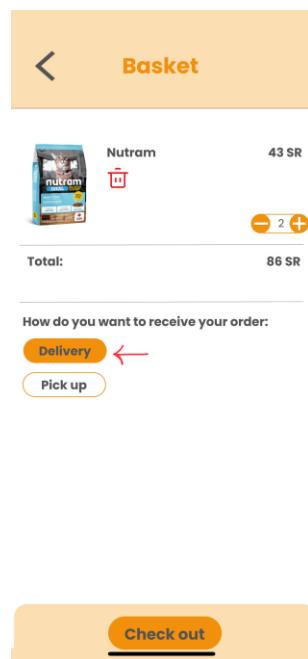


Figure 29 – Error of Task 1

Task 2: Book an appointment at a clinic.

The task requires the user to book an appointment at any clinic on the app. But the user can't cancel his appointment directly from the app, he must call the clinic to cancel (Figure 30).

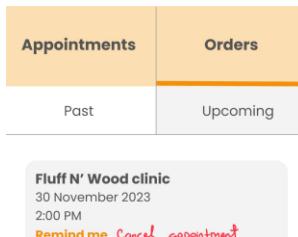


Figure 30 – Error of task 2

Task 3: Share a post on the social network.

The task requires the user to share a post on the social network page. The user might get confused between the social network icon and the blog icon (Figure 31).

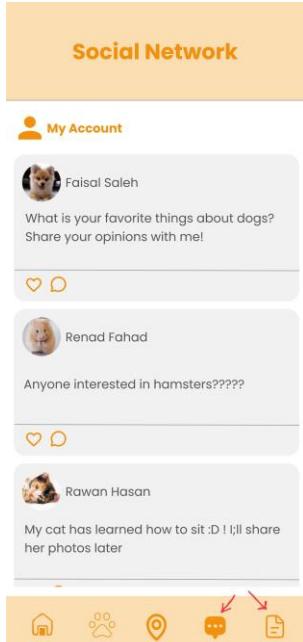


Figure 31 – Error of task 3

Task 4: Adopt a pet.

The task requires the user to open the adoption page and choose an animal to adopt. However, some users found the icon unclear and doesn't seem to be related to the adoption feature (Figure 32). Also, the user can't find the adoption center's location within the app, he must search for it, or call them to ask (Figure 33).

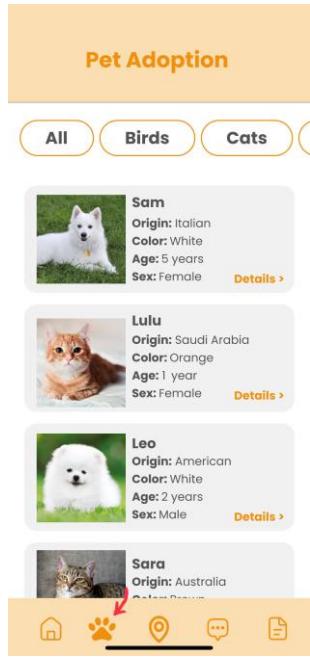


Figure 32 – Error of task 4

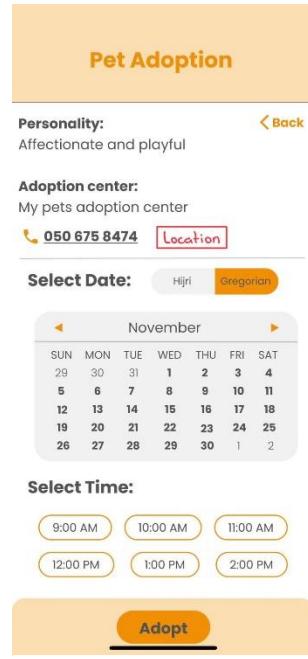


Figure 33 – Error of task 4

12.5. Recommendations

After completing the usability test and collecting results from the participants, we considered some suggestions that will help us develop our application by adding some features to improve the usability. We intend to add a feature that will allow the user to choose the desired delivery date when he places an order from the shop, as well as implementing a button in the appointments page to cancel an appointment. We also plan on adding the adoption centers' locations in our app to help the user find them faster. And lastly, we will consider adding labels under the icons to clarify and avoid confusion. We don't need to make big changes since all of our tasks got high success rate (83.3% and 100%).

13. Conclusion

Wrapping up our project, we have made an application called PetCare where users can find all of their pets' needs, a personal profile that contains the pet's info, an adoption page, a map showing all the shops and clinics, a social network to connect with other pet owners, and a blog for the latest news. We developed this app to make pet ownership easier for pet owners in Riyadh.

Throughout this project, we went through four phases, and each phase contributed in improving our app. In phase 1, we have interviewed users and made a questionnaire to collect the users' opinions regarding pets. We made two personas based on our interviews and identified their goals, needs, and pain points. In phase 2, we created user stories, sketches of our app, story boards about the app's features, and user flow of each user story.

In phase 3, we created a high-fidelity prototype by using Figma. Also, we made a short video showcasing our app and its features and shared it to YouTube.

Finally, in phase 4, we conducted a usability test and had our app tested by 6 participants, we identified the tasks to be tested, measured its success and completion rate, identified the errors in our tasks and discussed them. We made a questionnaire and had the users to complete it and summarized our data. Lastly, we wrote our recommendations on how to improve our app and make it better.

In the future, we will consider adding a dark mode to the app, plus enhancing the features that are already implemented, such as adding buttons in some pages and labels to the icons. We want to expand the app to include cities other than Riyadh, such as Jeddah, Khobar and some other big cities in Saudi Arabia.

14. Appendix A: Interview

Questions:

1. Could you kindly share your name and age with us?
2. What are some of the challenges you've faced in caring for your pet?
3. Can you share your experience with finding a trustworthy pet groomer or veterinarian? Were there any challenges in this process?
4. How long does it usually take you to search for pet care services or products?
5. What specific features would you like to see in a pet care app?
6. How do you think adding store reviews to a pet care app would enhance your experience as a pet owner?
7. Would you find it beneficial to connect with other pet owners through a social network within the app? Why or why not?
8. Would you be interested in a blog featuring the latest pet news and trends, and if so, how do you think it could benefit you?
9. Which notification method do you think is most convenient for receiving grooming or vet reminders: messages, emails, calls, or in-app notifications?
10. How can we make our app better for you and your pet?

Interview 1:

Interviewer: Joud.

A1: Sure, my name is Lana and I'm 25.

A2: The financial expenses for food and other pet supplies and toys, the prices vary from one shop to another and it's tough to visit them all to compare and choose the best.

A3: It was hard because there were so many choices. I had to go through lots of options and check their quality by myself, some of them weren't good and they cost a lot. It took a while to find the right one for my pet.

A4: The time can vary depending on what I need. It takes me anywhere from a few hours to weeks of searching and trying them out, especially when it comes to veterinary care, the process can be quite time-consuming.

A5: Appointment scheduling for all pet shops in the city, notification reminders for vaccinations and appointments since I always forget them, and access to expert advice.

A6: Store reviews in a pet care app would help me choose better services and save my time.

A7: Sure, we could recommend the best products that we've tried, exchange stories, or simply share our pet's pictures.

A8: Yes, I'd like a blog about the latest pet news. It can help me stay updated on what's happening in the pet community and learn about new trends.

A9: SMS messages.

A10: I think adding adoption feature would be good, where you can find all pets in one place instead of going to shelters by myself.

Interview 2:

Interviewer: Joud.

A1: My name is Faisal, I'm 36.

A2: One of the biggest challenges is the process of finding the right products. Trying them out one by one can be quite exhausting. Also, keeping track of vet appointments and vaccinations can be a bit tricky.

A3: It takes a lot of time to find the right one. I had to rely on my friends' recommendations and test out all their suggestions before finally settling on the best choice.

A4: It takes a lot of research through social media. I have to read countless product reviews, watch videos, and ask others to know what's best for my pet. It's a thorough process to make sure I'm choosing the right products, whether it's for pet supplies, food, or healthcare.

A5: A social network where pet owners can connect, share their experiences, and engage in meaningful discussions.

A6: It would make things better for pet owners like me. I could read what others think about a groomer before choosing them, which saves time. Plus, I could share my own experiences to help others decide.

A7: Yes, as I said before, it would be amazing if we could have our own space to share everything about pets.

A8: Yes, a blog with the latest pet news and medical advice would be really helpful. It will keep me informed about important health tips and trends for my pet.

A9: In-app notification or calls.

A10: Consider a user-friendly design that makes it easy to find pet care information and recommendations. It would be good to have an account for my pet's information.

Interview 3:

Interviewer: Alhanouf

A1: Of course, I am Norah Muhammad, and I am 26 years old.

A2: Really many situations happened to me. Pets need care, and sometimes emergencies may occur and you don't know how to react. For example, when I travel to a new place and my cat runs out of food, I don't know what's best for him, so I go to Google or ask shoppers in stores to inquire, and I waste a lot of

time, or when I need a vet other than my cat's usual doctor, I am confused to determine how is the best for him.

A3: Yes, as I told you before, one of the emergency cases I was exposed to was when my cat's doctor took leave and I wanted to take her to another veterinarian, but I was confused about the doctors' ratings on the applications. I might find a doctor but without contact numbers for the clinic, or I would find the clinic and go, but I didn't know They were on vacation.

A4: For services, it takes me two days to find good ones, but for products, it takes less than 2-4 hours.

A5: Alert about my cat's food, the latest clinics in the area and the best doctors, an advertisement for the latest products and foods, a list of discounts for pet services and products.

A6: Yes, it is useful. It may save a lot of time and provide the opportunity to know the opinions of real people about stores.

A7: Yes, I think it would be very helpful, especially if they are the ones who wrote a review in the store's comments section, I can message them directly so I can find out more details about their experience. It's a great idea.

A8: Yes, collecting everything in one place, and seeing the news in one application is a good and wonderful thing.

A9: I think email and in-app notifications are the best.

A10: I think that making the interface easy to use would be the best service you provide to the users of the application and making the notifications with different sounds so that we know the time of each event.

Interview 4:

Interviewer: Alhanouf.

A1: Hi I'm Ahmad Abdullah, I'm 34.

A2: Great question. You reminded me of a situation I wish had a solution. One time I went on vacation and left my pet with my sister, but because my sister forgot when to feed and take care of it, I would call or send a message every time at the necessary time. It was tiring, so I wished there was an app that I could download on my sister's phone that would tell her when my pet would eat.

A3: There are not many problems because he has a known vet for my pet, but sometimes when my pet has a problem, sometimes I want to take him to a more specialized doctor for advice, but it is difficult for me to easily find that doctor who specializes in the disease.

A4: As I told you regarding services, I have a clinic that I always deal with, but regarding products, it is difficult. My pet products always run out of the market near me, so I have to go around all the markets to find the product.

A5: As I told you about my problem with my pet, I wish I could put a person's phone number in an application or an emergency person who can receive all updates regarding my pet, as a notification, that is, merging more than one person with an application.

A6: It's amazing, it should be done right away it makes a lot of things easier.

A7: I do not think it is useful, it may become annoying. I prefer to have comments below every store or product. That is enough.

A8: Yes, it will be like a gift to us. Knowing all the news, updates, and products in a place is wonderful, especially if the information is updated every day.

A9: I think the messages will be excellent.

A10: Respecting the customer, receiving his comments, also facilitating the process of reaching stores and linking them to maps. In addition, I think knowing the number of pieces of products would be a good thing so that I do not go a distance and not find the product.

Interview 5:

Interviewer: Dalal.

A1: Yes, my name is Nora and I'm 20 years old.

A2: Choosing the right food type, expenses of medical care.

A3: Yes, I searched on google map for the highest rated vet around my home. There weren't many challenges.

A4: Mainly for products it takes me around 2-3 days to find the right product with the lowest price.

A5: I would like to see features providing prices comparisons, and an app that would provide a variety of options for products.

A6: I think it would give me a good idea about the best store to choose from which is a wonderful feature to add.

A7: Yes of course it would make it easier for me to learn from others' experiences which would provide my pet a better care.

A8: Yes, it would make me updated with latest stuff around pets and their care.

A9: I think messages are the best way since only important stuff are sent through it.

A10: I think focusing on smoothness of performance is really important and improving the interaction between the app provider and the customer.

Interview 6:

Interviewer: Dalal.

A1: I'm Afnan, I'm 19.

A2: Convincing my family, finding out the right food for them, good clinic and such.

A3: Yes, there were, I was always afraid of getting scammed or for them to not care for my pet well.

A4: Maybe a week? Because I go from looking online, to looking for feedback about the place, to comparing my options and so on.

A5: Available appointments and services, who is going to take care of my pet, and when can I come to pick her up.

A6: Yes, it would lessen the time it takes me to find a good place.

A7: I think yes it would, because we can share experiences and advice.

A8: If it has useful information and not just trendy news on it, I would like it.

A9: In-app notifications.

A10: Maybe add a shopping feature that has like food, needed medications, and cosmetics for the cat.

Interview 7:

Interviewer: Basmah.

A1: Alanoud, 24

A2: Finding a good groomer.

A3: It was not easy to find a groomer that was reasonably priced and provided good care.

A4: 1 hour online

A5: Appointment booking and payment through the app.

A6: It would be better if reviews were included.

A7: Yes. If they own similar pets, it would make it easier finding better products and services for my pet.

A8: Not really interested in reading blogs.

A9: Messages and emails

A10: Implement payment through the app and provide better user interface.

Interview 8:

Interviewer: Basmah.

A1: Sara, 23 years old.

A2: Matted fur.

A3: the pet shop I got my cat from had those services.

A4: Hours.

A5: Home service.

A6: It would save time.

A7: Yes, extremely beneficial because we can share experiences and help each other.

A8: No.

A9: Messages.

A10: Simple user interface.

15. Appendix B: Questionnaires**Questions:**

1. How old are you?
2. Gender:
3. Have you used a pet-related app before?
4. Are you interested in pet adoption services through the app?
5. Would you like to see pet healthcare tips and information on the app?
6. Have you ever used a pet grooming service?
7. Have you ever missed your pet's veterinarian appointment date?
8. Would you be interested in a feature that connects you with local pet events and meet-ups?

[Raw data file](#)

16. Appendix C: Usability Test

Consent Form:

Evaluation Consent Form



Goal:
The goal of this evaluation is to test the usability of PetCare application prototype, to improve this app in terms of user-friendliness.

Procedure:
You will carry out tasks with the prototype, which will be provided by the development team. While carrying out the tasks you are asked to think aloud. After completing the tasks, you will fill in a short questionnaire. The evaluation will take around 35 minutes.

Recording and Usage:
1. The evaluation session may be recorded for analysis purposes only.
2. Recordings will be securely stored and accessible only to PetCare development team.
3. Your identity will be kept confidential, and your personal information will not be linked to the evaluation data.

Data Security:
1. All data collected will be handled in accordance with relevant data protection regulations.
2. Your data will be anonymised, and any personally identifiable information will be removed before analysis.

Consent:
By proceeding with the evaluation of PetCare, I confirm that:
- I have read and understood the information provided in this consent form.
- I voluntarily agree to participate in this evaluation.
- I understand that I can withdraw from the evaluation at any time without providing a reason.
- I consent to the recording of the evaluation session for analysis purposes.
- I understand that my personal information will be treated confidentially and in compliance with applicable data protection regulations.

Participants signature: 

You may stop, take a break, or ask a question at any moment

Facilitator Script:

Facilitator Script

Scenario:

Imagine that you own a cat and you have a busy schedule and can't find the time to visit and try all the veterinarians out there, or go buy her favourite food and toys. Your business will keep you behind on the latest news and products about cats. Or your cat might want a friend - a cat! You come across an app called PetCare where you find all of your pet's needs and you download it to save your time and effort in finding the best for your cat.

Tasks:

1. Buy a product.
2. Book an appointment.
3. Share a post on the social network.
4. Adopt a pet.

Satisfaction Questionnaire Form:

Satisfaction Questionnaire Form

1. All the functions are clear and easy to use.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

2. The interface is familiar and similar to common interfaces.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

3. The design is consistent.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

4. The app provides clear instructions on how to perform various tasks.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

5. I would recommend the app to others.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree