

PetSociety: A Software-as-a-Service for Pet Supplies and Services

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ABSTRACT

The web-based platform for unified services aimed to answer questions concerning the pet product's quality and affordability and as well as pet services' availability in pet centers. It encouraged pet lovers to donate in pet organizations, for a donation could also mean a coupon for the donor. This study gathered data from customers regarding their preference between physical store and online shopping through survey-questionnaires.

As a result of this study, the gathered information based on the survey are as follows: Most of the customers usually buy pets supplies online than in physical stores; Majority of the customers find it more hassle to buy pet products in physical store than online; It's been found out that online stores sell cheaper products compared to physical stores.

There are notable refinements that need more consideration. Hence, a system that enhances pet supply purchasing and pet service locating features with a user-friendly interface and experience increase convenience and productivity for the users. As a recommendation, the system can be expanded and enhanced for future development. In the future, this application won't just be available in the web, but also in other device like phone. This is to promote portability of the software application.

Keywords: Order Management System, Pet Service Reservation, Pet Supplies Online Purchase, Philippines

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Our sincere thanks go to our respondents who gave us their precious time conducting our research. Without their exceptional support, it would not be possible to conduct this research. Lastly, we would like to thank our families, parents, and friends for supporting us throughout writing this research.

The Researchers

DEDICATION

This research paper is dedicated to the proponents' families and friends, for they are their strength and hope throughout the course.

We also dedicate this to the academe that has motivated us to fulfill this study.

We further dedicate this study to ourselves, who have been very supportive of each other through this study.

Finally, we dedicate this to our all-powerful God because, despite all, we've gone through as a team and as a group, we were able to complete it successfully because of our confidence and hope in Him.

The Researchers

TABLE OF CONTENTS

TITLE PAGE	i
APPROVAL SHEET	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENT.....	iv
DEDICATION	v
LIST OF TABLES	8
LIST OF FIGURES	9
CHAPTER I: INTRODUCTION	1
Rationale of the Study.....	1
Objectives of the Study.....	5
General Objective	5
Specific Objectives	5
Scope and Limitation of the Study.....	6
Scope of the Study	6
Limitations of the Study.....	7
Significance of the Study	8
Flow of the Study.....	9
Definition of Terms.....	10
CHAPTER II: REVIEW OF RELATED LITERATURE.....	12
Conceptual Framework.....	12
Related Literature.....	14
Related Studies	16
Comparative Matrix	19
CHAPTER III: RESEARCH METHODOLOGY	20
Environment.....	20
Software Engineering Methodology	21
Planning/Conception-Initiation Phase.....	23
Business Model Canvas	23
Program Workflow	24
Validation Board.....	25
Gantt chart.....	26
Functional Decomposition	27

Analysis Design Phase	30
Use Case Diagram.....	30
Activity Diagram	51
High Level Design	67
Network Design	108
Development/Construction/Build Phase	109
Technology Stack Diagram.....	109
List of Modules	110
Testing/Quality Assurance Phase	113
Unit Testing	113
Integration Testing	117
Alpha Testing.....	118
Acceptance Testing.....	119
Implementation/Deployment Phase	120
Deployment Diagram.....	120
Implementation Budget/Cost Specification	121
Software Specification	122
Hardware Specification.....	122
Program Specification Functional Requirements	123
Human Resources Specification	124
User-Guide	124
Project Roadmap.....	141
CHAPTER IV: SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS.....	142
Findings	142
Conclusion	142
Recommendations.....	142
REFERENCES.....	144
CURRICULUM VITAE.....	147
Appendix A: Transmittal Letter.....	151
Appendix B: Research Environment	152
Appendix C: Survey Questionnaire	153
Appendix D: Survey Results.....	155

LIST OF TABLES

TABLE NO	TABLE NAME	PAGE
1	COMPARATIVE MATRIX	19
2	DATA DICTIONARY OF ADMINS TABLE	100
3	DATA DICTIONARY OF USERS TABLE	100
4	DATA DICTIONARY OF PET CENTERS TABLE	101
5	DATA DICTIONARY OF PET ORGANIZATIONS TABLE	101
6	DATA DICTIONARY OF PRODUCTS TABLE	102
7	DATA DICTIONARY OF PETS INFORMATION	102
8	DATA DICTIONARY OF PET SERVICES	103
9	DATA DICTIONARY OF DONATIONS TABLE	104
10	DATA DICTIONARY OF ORDERS TABLE	104
11	DATA DICTIONARY OF CATEGORY OF THE PRODUCT	105
12	DATA DICTIONARY OF CATEGORY OF THE SERVICES	105
13	DATA DICTIONARY OF ITEMS TABLE	105
14	DATA DICTIONARY OF CONFIRMED SERVICES TABLE	105
15	DATA DICTIONARY OF DELIVERY TABLE	106
16	DATA DICTIONARY OF FEEDBACK TABLE	106
17	DATA DICTIONARY OF CONFIRMED DONATIONS	106
18	DATA DICTIONARY OF RESERVE SERVICES	107
19	LIST OF MODULES	110
20	UNIT TESTING	113
21	INTEGRATION TESTING TABLE	117
22	ALPHA TESTING	118
23	ACCEPTANCE TESTING	119
24	SOFTWARE SPECIFICATION	122
25	HARDWARE SPECIFICATION	122

LIST OF FIGURES

FIGURE NO	NAME	PAGE
1	Flow Of The Study	9
2	Conceptual Framework Of Petsociety	12
3	Pet Food Express	16
4	Pet Express	17
5	Dogs And The City	17
6	Bow&Wow	18
7	Pet Lovers Centre	18
8	Local Map Of Cebu Province	20
9	Agile Methodology Diagram	21
10	Business Model Canvas	23
11	Program Workflow Of Petsociety	24
12	Petsociety: Validation Board	25
13	Gantt Chart	26
14	Functional Decomposition Of Petsociety	29
15	Business Use Case Of Petsociety	30
16	System Use Case Model - Customer Process Registration	31
17	System Use Case Model - Pet Center Process Registration	32
18	System Use Case Model - Process Login	33
19	System Use Case Model - Purchase Product	34
20	System Use Case Model - Customer Manage Account	35
21	System Use Case Model - Pet Center Manage Account	36
22	System Use Case Model - Manage Appointment	37
23	System Use Case Model – Manage Pet Information	38
24	System Use Case Model – Process Donation	39
25	System Use Case Model - Manage Coupons	40
26	System Use Case Model - Create Feedback	41
27	System Use Case Model - Manage Services	42
28	System Use Case Model - Manage Discounts	43
29	System Use Case Model - Manage Products	44
30	System Use Case Model - Manage Orders	45
31	System Use Case Model - Manage Users	46
32	System Use Case Model - Manage Users	47

33	System Use Case Model - Generate Report	48
34	System Use Case Model - Manage Donations	49
35	System Use Case Model - View Invoice	50
36	System Use Case Model – Customer Progress Registration	51
37	System Use Case Model - Pet Center Process Registration	52
38	System Use Case Model - Process Login	53
39	System Use Case Model - Purchase Product	54
40	System Use Case Model - Manage Account Information	55
41	System Use Case Model - Manage Appointment	56
42	System Use Case Model - Manage Pet Information	57
43	System Use Case Model - Process Donation	58
44	System Use Case Model - Manage Coupon	59
45	System Use Case Model - Manage Feedback	60
46	System Use Case Model - Manage Services	61
47	System Use Case Model - Manage Products	62
48	System Use Case Model - Manage Users	63
49	System Use Case Model - Generate Report	64
50	System Use Case Model - Manage Donations	65
51	System Use Case Model - View Invoice	66
52	Pet Store	67
53	Product Details	68
54	User Login	69
55	User Signup	70
56	Petcenter Login	71
57	Petcenter Signup	72
58	Admin Login	74
59	User Profile	75
60	User's Cart	76
61	Place Order	77
62	My Orders	78
63	Transaction History	79
64	Service Page	80
65	Show Service Info	81
66	Donation	82

67	Organization Detail	83
68	Donate	84
69	Add Service	85
70	Confirm Reservation	86
71	Customer's Pet Detail	87
72	Sales Inventory	88
73	My Services	89
74	Manage Order	90
75	Add Products	91
76	Partnered Organization	92
77	Coupon Application	93
78	Donation Research	94
79	View All Products	95
80	View All Coupon	96
81	Manage Us	96
82	Transaction History	97
83	Pet Center Application	98
84	Database Diagram Of Petsociety	99
85	Petsociety Network Design	108
86	Petsociety: Technology Stack Diagram	109
87	Deployment Diagram Of Petsociety	120
88	Project Roadmap Of Petsociety	141
89	Map Of The Research Environment	152

CHAPTER I

INTRODUCTION

Rationale of the Study

With the rise of web applications or the Internet in general, businesses were already required to have a physical infrastructure for all communications systems located on-premises, which was expensive due to hardware and maintenance costs.

The Internet and, more particularly, the global web applications attract businesses in their thousands. Web applications are essential for the development of the Internet. They improve the quality of a browser's work, and the entire Internet can function plainly. They appear to be an ideal medium for businesses attempting to promote themselves and their wares. Setting up a site on the World Wide Web and thus gaining instant access to millions of people all over the globe can be achieved at a small fraction of the cost using more conventional methods.

Furthermore, web-based applications are a type of software that enables users to interact with a remote server via a web browser interface. They've become increasingly popular in recent years, with small and large businesses worldwide using them to replace desktop applications and as a critical tool. They have several advantages over traditional desktop applications, the most notable being portability. Users do not need to install any additional software when using web-based apps, and developers do not need to write multiple versions of the same app for different operating systems.

The use of web applications in business has taken a sudden but remarkable upsurge in the history of man. Thanks to the lack of tools to enable quicker business transactions, the company took a slow pace in the old times. Everything was done by hand with the help of a few mechanical tools, which made conducting business quickly nearly impossible.

A quick overview of the history of technology in business will reveal the radical yet dramatic shift from traditional business practices to today's innovative approaches. It would also give one a better understanding of how vital web applications are in the business world. Further, there are many benefits web-based applications can offer your business. Some are as follows:

Web-based apps are cross-platform and universally accessible.

Web-based applications can help you save money on software development.

Web-based applications are highly scalable.

Using web-based applications can lead to significant savings on software development.

Web-based apps are secure.

Web-based app deployment is easy, cost-effective, and fast.

Web-based software is simple to update and maintain.

Because of these benefits, web-based apps for business have grown in popularity among multinational corporations and small businesses. Because web-based technologies are on the rise and getting better all the time, you might consider switching from desktop to cloud-based software as an investment in your company's future.

The main benefit of web-based software is that it is entirely independent of client machine software. A traditional desktop program may need to be customized to meet the needs of different operating systems, but any device can access web-based application.

In a nutshell, web-based applications are a unique solution that can provide your company with a wide variety of multifunctional online tools to optimize processes and solve multiple problems.

The e-commerce sector is rapidly expanding, with more e-commerce businesses popping. The digital economy is also growing, with internet access reaching every corner of the globe.

E-commerce arose from the trend of doing business over the Internet. Electronic commerce refers to a digital platform and business model that allows you to buy and sell products over the Internet. You participate in the e-commerce economy every time you buy something online.

If you're still skeptical about the e-commerce industry's impact, consider the following statistics:

There will be approximately 4.95 billion internet users worldwide by January 2022, accounting for 62.5 of the global population (while the urbanization rate is 57 percent).

Retail e-commerce sales worldwide reached 4.9 trillion dollars in 2021. The people are expecting it to double in the next four years. Increase by more than 50%. People are buying products online and will continue to do so.

According to Google, more than 80% of customers conduct their research online before purchasing. As a result, most Google searches were conducting with the intent of making a purchase.

Mobile devices generated \$3.56 trillion in retail sales in 2021. For several years, e-commerce companies have been optimizing for mobile commerce.

As the e-commerce businesses emerged, the increase of many different products sold online has also been apparent. Many strategies have been constant, and that is also because of the ever-changing trends. For instance, when the pandemic started, the demand for face masks and face shields was high, resulting in price inflation. The said products mainly were bought online since people are limited to going to the malls and other places. The pet accessory is one of those online products that never misses its spot in e-commerce. According to Shopify, a commerce platform or subscription-based software, the most trending products and categories on their platform from

September 2021 to February 2022 are as follows: print books and eBook, vinyl and CDs, belt buckles, false eyelash accessories, household cleaning supplies, circuit boards, and components, play vehicle accessories, dinnerware, pet carriers, and crate accessories, and curtain and drape rings.

Pet carriers and accessories rank ninth on the list. The American Pet Products Association has been in existence since 1958. (APPA) has been the leading trade association representing the pet products industry. Today announced the industry had reached over \$100 billion in annual sales, the highest level in industry history. The milestone was released in APPA's 2020 State of the Industry Report during Global Pet Expo Digital Access.

According to Steve King, and CEO of APPA, pet products reached \$103.6 billion in sales. Pet industry sales exceeded \$100 billion for the first time, conforming to American Pet Products Association (APPA) 2020 State of the Industry Report. Pet owners shopping online increased by almost 20%, up to 86%.

Apart from the pet products, pet services such as veterinarian care also became a more significant expense, with some pet owners saying they made three visits during the year. Routine veterinary visits make up the second-largest segment of a dog owner's expenditures after food. Doggy daycares also experienced a growth in the percentage of owners who used their services – from 22% to 28%. In addition, there was a slight increase in the number of people who took their dogs to obedience training (8%).

Furthermore, the aforementioned issues are only a tiny part of the scope of animal welfare. Animal welfare refers to how an animal copes with its living circumstances. According to scientific evidence, an animal is in a good state of interest if it is healthy, comfortable, well-nourished, safe, able to express innate behavior, and not suffering from unpleasant conditions such as pain, fear, or distress. Animal welfare refers to how a creature is treated, while animal care, animal husbandry, and humane treatment refer to how an animal is treated. Providing for an animal's physical and mental needs is essential to its welfare.

Proper housing, management, nutrition, disease prevention and treatment, responsible care, humane handling, and, when necessary, humane euthanasia are all human responsibilities.

Locally, pet shops are also present in the municipalities, namely Lapu-Lapu and Mandaue. For instance, Z & Z Petshop, My Pet Station, Crown Fishing Supply, Caminade South Petshop, and Purrfect Treats.

On the other note, based on the survey that has been made in the immediate vicinity where the researchers live (Lapu-Lapu City, Mandaue City, Cebu City, and Consolacion), it's been found that 78% of the respondents usually buy pet products in physical stores while 22% of them shop

online. When asked to choose between the two options, respondents stated that purchasing pet supplies online and in physical stores is more complex and time-consuming; the latter received more votes. On the other note, online shops earned the spot when asked which sells cheaper products garnering 66%. The respondents were hesitant to set an appointment in a physical store because they said that it's a hassle and expensive when they were asked by the researchers what made them reluctant to arrange an appointment.

To aid the concern that the respondents mentioned, the researchers came up with an idea to develop a web-based application that will help them in buying products online and make them easier to set an appointment in pet centers. It will also help them find essential pet products that are cheap and are good in quality because they can compare one another from different pet stores on the web. Through the web application, pet lovers would have the option to book it online to lessen the hassle of going to the vet clinic personally and, of course, save money because they would also have the option to choose the vet clinic that offers low prices in exchange for an excellent service.

Lastly, looking for pet products and services will not be a hassle anymore because they can have and purchase them online.

Objectives of the Study

General Objective

The PetSociety: A software-as-a-service for pet supplies and services aimed to aid the difficulties of pet owners in buying pet products, locating pet services, and providing information to donate from various pet organizations.

Specific Objectives

Specifically, this study aimed:

1. Identify the existing system of pet supplies and pet services
2. Determine the processes that will improve the existing system in terms of:
 - 2.1. Ordering system
 - 2.2. Selling system
 - 2.3. User management
 - 2.4. Pet center and location management
 - 2.5. Donor management
 - 2.6. Pet services management
 - 2.7 Pet information management
 - 2.8 Report generation
 - 2.9 Appointment Booking
 - 2.10. E-coupon for pet services
3. Formulate system design using system design tools.
4. Implement and test the established system.

Scope and Limitation of the Study

Scope of the Study

The scope of this study includes the concepts that will serve as the research's fundamentals:

1. Customer

- Process registration
- Manage account
- Order of products
- Invoice
 - View and can print invoice
- Book appointment for pet services
- View location of pet services
- Donate
- Feedback
- Provide pet information

2. Pet Center

- Process registration
- Manage account
- Manage services
- Manage discount
- Provide location
- View feedback
- Generate report

3. Admin

- Process login
- Manage products and orders
 - Order and sell products
- Manage users
- Manage donations
- Manage coupon
- Manage pet information
- Generate report

Limitations of the Study

However, the system is not capable of the following:

1. The device should be connected to the Internet to access the system. Also, the system is only accessible through the web.
2. The system would not accept online payment. Payment will happen only outside the system.
3. The donation would happen externally, where the donor's contribution would automatically transfer to the pet organization.
4. The system would not interfere with the transaction between the customer and the pet
5. The users cannot communicate using the system.
6. The location is linked to the google map. The users would locate the pet services externally or outside of the system.
7. The customer can only use the coupon once.

Significance of the Study

PetSociety: A software-as-a-service for pet supplies and services that provide an easy way for pet owners and pet lovers to supply the needs of their pets online. The end product of this study can significantly benefit the following:

Donors. The web-based application would help the donors because they can get discounts from pet centers if they had the coupon sent to them by the admins to present them the proof of donation.

Pet Centers. This would help the pet centers to have it as their platform for selling their service. This would also help them boost their customers in number because customers can quickly locate them as they're doing business online, where access is everywhere.

Pet Organization. This would help the pet organizations encourage the donors to donate to them through Gcash or online banking because the donors can upload the proof of donation in the system. As a return, it would grant them a coupon sent to their email, which they can use to get 11 discounts in pet centers.

Pet Owners. This would help the pet owners to purchase pet supplies/products conveniently. Also, it would help them save time in locating pet services because they can just be found on the website offered by the pet centers.

Researchers. This would allow the researchers to contribute to the resolution of some of the problems customers encounter, specifically in purchasing pet supplies, locating pet centers, and managing donations.

Future Researchers. The study would guide future researchers interested in making a system that focuses on selling pet products, finding pet services, and collecting pet donations. The study would serve as the basis for fulfilling their study.

Flow of the Study

The flow of the study refers to the input, process, and output of the research. Whereas information relates to the issue encountered, strategy refers to procedures for solving the problem and work refers to the result after such a process.

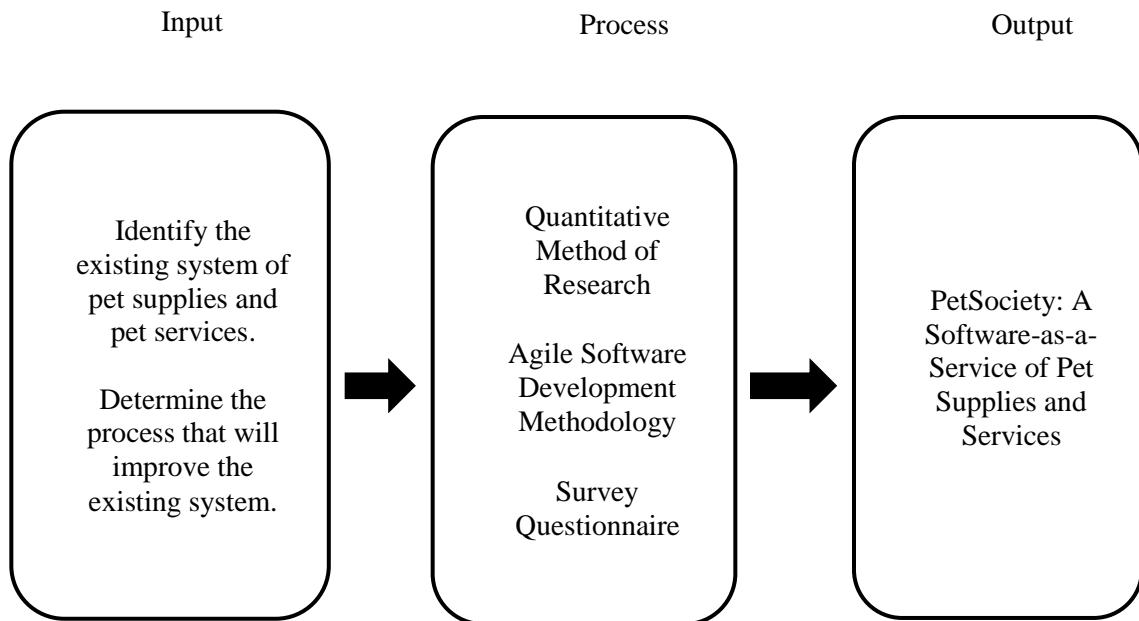


Figure 1: **Flow of the Study**

The input box is to identify the existing software that needs to be improved, such as finding services and purchasing products. Build software with features that would enhance the system with added features. The process box explains all of the study's methods and approaches and aids in analyzing the data provided by the respondents. The output box shows what the proponents come up with ideas and answers for improving the existing system.

Definition of Terms

Appointment Booking

In this work, the terms refer to the action of booking an appointment online. In terms of operation, appointment booking refers to one of the features of the PetSociety in which the customer would book an appointment to their preferred pet center.

E-commerce

At its most basic level, an online purchase or sale. Mobile commerce, electronic funds transfer, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection are all examples of electronic commerce technologies.

E-coupon

The term refers to an electronic coupon used to provide discounts to customers. Only the donor can claim the e-coupon via email in this work.

Feedback

It happens when the outputs of a system are used as inputs in a cause-and-effect chain that forms a circuit or loop.

Google Maps

In this work, the term refers to the action of locating an area or location. In terms of operation, google maps refer to one of the features in PetSociety in which the customers can find the pet center's address.

Money Transfer

Transferring money from one place to another place. This may occur electronically and physically. In terms of operation, the term "money transfer" refers to one of the donation options. If the donor prefers to donate cash, they will need to use GCash or bank transfer.

Online Ordering System

In this work, the term refers to the action or activity of purchasing goods or services over the Internet. Operationally, it makes shopping more accessible by accessing the Internet and from any location.

Software-as-a-Service

The term refers to the delivery of applications as service over the Internet. Instead of installing and maintaining software, you access it via the Internet, eliminating the need for complicated software and hardware management.

Web application

Rather than computer-based software programs that run locally on the device's operating system, this time refers to application software that runs on a web server. The user accesses web applications via a web browser with an active network connection.

	The term refers to a location connected to the Internet and hosts one or more World Wide Web pages. The term "website" is used in the study to refer to the location where users, such as PetSociety customers and pet centers place orders and post services for pets. The order is completed primarily through the use of internet access.
Website	
World Wide Web	The term refers to a network of internet servers that support specially formatted documents. The documents are formatted in HTML (HyperText Markup Language), which allows for links to other documents and graphics, audio, and video files. The operation of PetSociety's online purchases is heavily reliant on the Internet. The World Wide Web is being used to help upgrade the business's system to go online.

CHAPTER II

REVIEW OF RELATED LITERATURE AND STUDIES

The related literature, studies, and conceptual framework that the researchers have read to familiarize themselves with information relevant to the current study are all included in this chapter. The comparative matrix is also presented in this chapter as a study reference.

Conceptual Framework

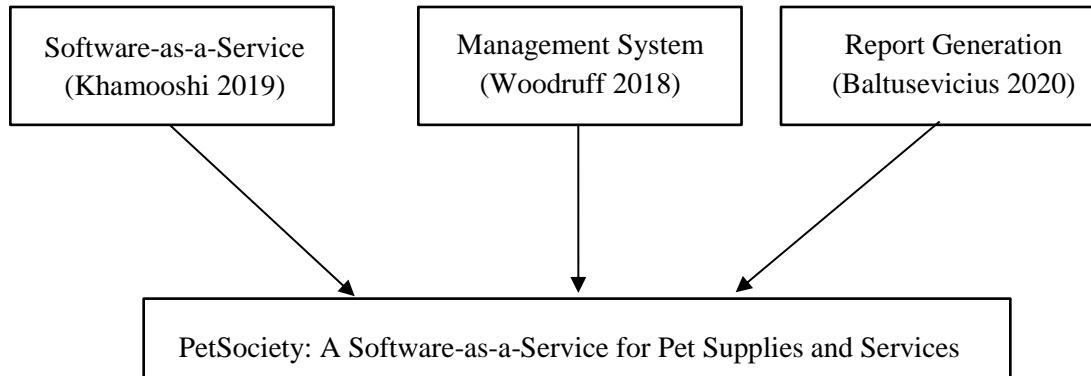


Figure 2: **Conceptual Framework of PetSociety**

In comparison to on-premise software, SaaS applications provide tangible business benefits. It works with most browsers and all operating systems, regardless of update or version. Because of the consistency for each user, this also helps with problem-solving. Rolling out SaaS applications across the organization is a simple process. Once the software is installed on the host server, access is granted. When an upgrade is available, it can be applied through the host server rather than having to upgrade each machine. This means that new software or upgrades can be installed quickly, and maintenance can be done from a single location. Changes take less time to implement, and the system is consistent. Servers can be fully redundant and replicated through cloud computing to prevent downtime due to a disaster. This eliminates the need to keep track of the security of each device on which the app is installed. Overall, the risk of unauthorized access is reduced, and security measures are easier to implement because they are done centrally (Khamooshi 2019).

Management Information System provides information about the real economic value to the business. A management information system can also be defined as a system that collects, analyzes, and processes raw data into helpful information before distributing it to users in the appropriate format. A management information system can help a company become more competitive. It reports and identifies what is and is not working. These reports provide owners with

the information they need to make decisions and improve employee and business performance. The Management Information System provides reports that enable you to keep the company running. (2018) (Woodruff). Management Information System provides reports that allow you to keep the company on the road. (Woodruff 2018).

Report generation eliminates the need for employees to manually create reports, lowering the risk of errors and allowing them to do what they do best – analyze data. It employs a report generator, a tool that requires the report to be defined, including the type of data to be retrieved, the location of the data, and the method of displaying it. This allows you to run a statement with the report processor that extracts information from the given report definition and combines it with the report layout to generate the report. 2020 (Baltusevicius).

Related Literature

Web Application

According to M. Devlin, web applications offer greater efficiency by replacing paper-based workflows, including staff with better ways to work and increasing transparency and consistency. It enables a business to stand out from the competition by providing a next-level customer experience or expanding into new markets (Devlin 2020). Web-based applications may provide numerous advantages to businesses. Because of the ease of initial development and growth, they are worthwhile to manage and offer flexible working hours to employees (Khamooshi 2019). Web-based apps simplify and automate all administrative tasks. From sales to payroll, web-based apps can manage those tasks efficiently. The employees can also be more focused, and in the end, they will find it easier to maintain the stability of the business income. (Kanya 2022)

Online Shopping System

J. Chang claims that changes in consumer lifestyles, as well as a lack of time, may make it more difficult for customers to shop in physical locations such as stores and shopping malls. They are shopping on the Internet addresses this problem as shoppers can shop in the comfort and convenience of home (Chang 2019). The customers can have the opportunity to review checking about the products and brands through online shopping. The leading online shopping facility is that the seller reaches the products at the customers' door. (Mascarenhas 2018). Customers prefer online shopping because They can shop 'anytime, anywhere, for anything' while comparing prices and product features across various varieties and brands at online shopping sites. Convenience, price, type, and time — all work in favor of online shoppers. (Jha 2019)

Web-based Appointment System

It's a great way to provide quality service while also giving customers control over their appointments, according to Shawnicolas. Customers can easily find and book appointments, resulting in higher customer satisfaction. Customer retention and lifetime value increase as customer satisfaction rise (Shawnicolas 2022). Customers can book appointments more efficiently with online booking systems. The convenience of these services appeals to potential customers and gives them an advantage over the competition. (K. Wilson 2021).

Google Map

According to M. Rana, google maps acts as a business lead magnet for your business. The most impactful way companies can get benefits are to make it easier for potential customers to reach your business. The customers only need to type the business name and get a complete physical location map. Google Maps' local search feature allows users to list businesses and pin them to the map, along with contact information and other pertinent information. Forever, Google

Maps is the best way to promote your business for free. Because Google Maps has such a large following, you won't have to worry about running expensive promotions to attract customers (Rana 2022). Google Maps have proven to assist several individuals in finding a location, products or services, and tourist sites. Moreover, it also gives directions to reach them. Google Maps helps small businesses or local shops by attracting locals. (R. Kamal 2021)

E. Pirveysian claims that Google Maps has helped customers improve operational efficiency, end-user experiences, sales, and data visualization, among other things. In today's ever-changing business environment, Google Maps plays a pivotal role. Global logistics will become more streamlined and automated as consumer preferences change and technology advances, and organizations will rely even more heavily on geospatial solutions and mapping services. (Pirveysian 2020)

E-commerce

A. Khurana claims that E-commerce allows businesses to expand their customer base by eliminating physical stores. In addition to eliminating the possibility of long lines, e-commerce sites provide a significant benefit to both shoppers and stores not located in major urban areas. The business can also save money on rent, utilities, maintenance, and other costs associated with physical stores. An E-commerce store can essentially remain open 24/7 without hiring employees to watch over the store and protect items (Khurana 2019). With eCommerce, there is no need to acquire expensive high-street stores. They can produce or store the goods at a remote upcountry location and still advertise and sell them worldwide. While developing a good website may be substantial, it is much cheaper than letting expensive high street storefronts. Additionally, once they have a website operational, they will reach a broad client base. (Briggs 2017)

According to M. Sharma, users spend more time on websites due to various products. Also, digital payment methods allow consumers to pay online or pay on delivery. E-commerce has made the shopping experience very smooth and enriching. (Sharma 2020).

Related Studies

Researchers should conduct a thorough and systematic review of the related studies. A review of related studies is an indispensable component of the research. It sheds light on the study's theatrical or conceptual context. Here are some of the existing PetSociety-related software:

Pet Food Express

Pet Food Express offers pet food, focusing on premium brands, holistic and organic pet food, other pet supplies, and self-service dog washing facilities (Pet Food Express, 2022). Delivery or store pickup, services, and locating stores are features of Pet Food Express..

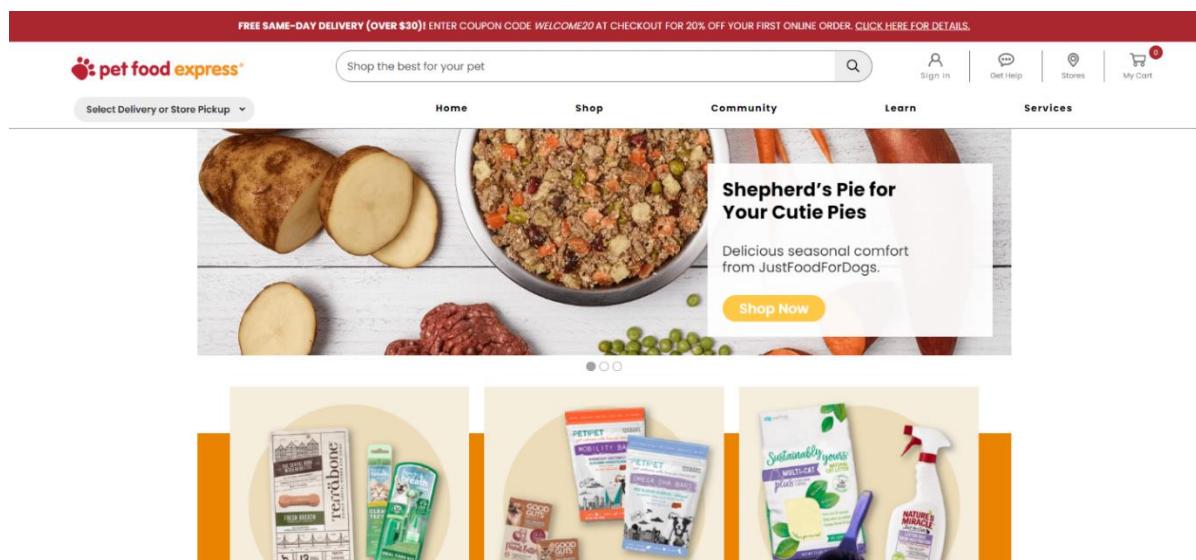


Figure 3: Pet Food Express

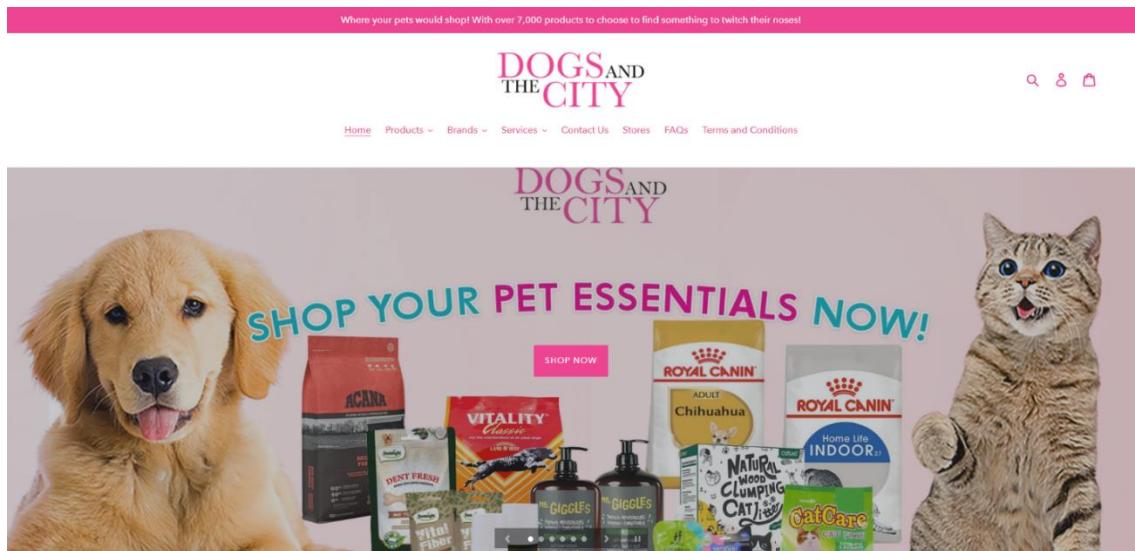
Pet Express

PetExpress is one of the Philippines' largest pet supply stores. Grooming tools, pet food, clothes, cages, toys, and more from various local and imported brands are available. In addition, Pet Express has a pharmacy to meet your pet's medical needs. During mall hours, the store also offers pet boarding. (Pet Express, n.d.).

Figure 4: Pet Express

Dogs and the City

Dogs and the City has a large selection of unique dog and cat products. Their products are designer collars and leashes, pet beds, pet apparel, toys, pet food, and other pet necessities. Pet grooming, veterinary services, daycare, and kennel services are also available. (Dogs and the City, n.d.).

Figure 5: Dogs and the City

Bow&Wow

Bow & Wow is the country's only all-natural pet store, having opened in 2008. They believe that proper nutrition is essential for raising healthy and happy pets. They have a large selection of premium, additive-free, and preservative-free pet food from the United States. They have grooming, pet care, and play supplies in addition to pet food. (Bow&Wow, n.d.).



Figure 6: **Bow&Wow**

Pet Lovers Centre

Pet Lovers Centre sells items for all types of animals, not just cats and dogs. Small animals, fish, and even reptiles have their sections. In addition, the Pet Lovers Centre has an in-house pet salon and a pet bakery run by Make and Bake, a shop that sells baked goods for your pets.



Figure 7: **Pet Lovers Centre**

Comparative Matrix

The table presented the comparison among several related system in terms of its features.

Table 1
COMPARATIVE MATRIX

Features	PetSociety	Pet Food Express	Pet Express	Dogs and the City	Bow&Wow	Pet Lovers Centre
Register and Login	✓	✓	✓	✓	✓	✓
Manage Accounts	✓	✓	✓	✓	✓	✓
Managing of orders	✓	✓	✓	✓	✓	✓
View delivery status	✓	✗	✗	✗	✗	✗
Managing of pet services	✓	✗	✗	✗	✗	✗
Locating pet centers	✓	✗	✗	✗	✗	✗
Donation	✓	✗	✗	✗	✗	✗
Ratings and feed backing	✓	✓	✗	✗	✓	✗
Appointment booking for pet services	✓	✗	✗	✗	✗	✗
Coupon	✓	✗	✗	✗	✗	✗
Generation of report	✓	✗	✗	✗	✗	✗

As shown in the comparison matrix above, PetSociety offers a variety of features. One of the features of the PetSociety is the ability to search for pet products, services, and locations. However, PetSociety stands out among these relevant studies due to donations, coupons, and appointment booking.

CHAPTER III

RESEARCH METHODOLOGY

This chapter described the methodology and procedures used in the study's implementation. These include the research environment, software engineering methodology, planning/conception-initiation phase, analysis-design phase, and development/construction/build phase.

Environment

The locale of the study is in Cebu, Philippines, specifically the pet owners in Lapu-Lapu City, Mandaue City, Cebu City, and Consolacion. The method used in the study is the survey questionnaire to gather understanding from the respondents. The survey dissemination is through Messenger and Facebook, where the researcher addresses the survey link to the study's target population. There are 50 pet owners as respondents in the survey.



Figure 8: **Local Map of Cebu Province**

The figure above showed the map of Cebu Province, which focuses on Lapu-Lapu City, Mandaue City, Cebu City and Consolacion.

Software Engineering Methodology

In implementing the study, the researcher would apply Agile Software Development Methodology throughout the development of the system, and there are several opportunities to use and evaluate the proponents' time and directions. This method aids proponents in dealing with the unpredictable nature of software development.

Agile is the best choice for this study because it is a rapid development and deployment process that begins with planning, designing, development, testing, deployment, review, and launch. It then repeats the process, dividing features, services, or tasks into parts with different priorities. The study is divided into sections, allowing the application to be deployed in iterations and receive continuous feedback. It improves efficiency by enabling the team to identify and fix bugs quickly and align expectations. In using agile, there is more control in the team and the client, better productivity, more refined quality product, customer satisfaction, increased flexibility, and reduced risks.

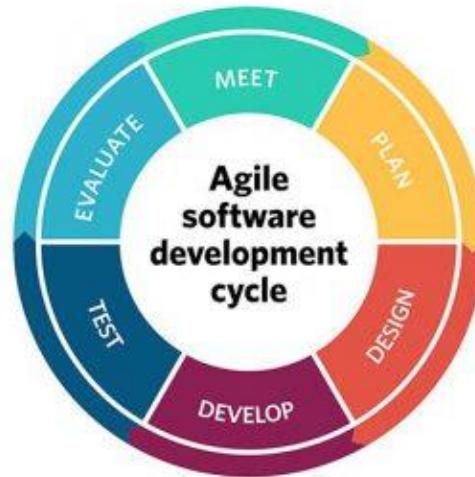


Figure 9: Agile Methodology Diagram

The figure above showed the agile methodology cycle from planning, design, development, testing, deployment, review, and launch.

Meet – This is the very first step of the process, and this is to determine the system's goals. The researchers gathered all the crucial information or data to be applied in the following phases for the successful development of the system.

Plan - The researchers started from the beginning in the planning phase, planning the entire system, including its flow, functionality, and process. Additionally, before development, planning entails the creation of the following deliverables: Business Model Canvas, Program Workflow,

Validation Board, Gantt chart, and Functional Diagram. The following deliverables will serve as a foundation for the application's development.

Design – The system was developed to meet the needs of the previous phase. The researchers visualize the system prototype design in this phase. The Use Case Diagram, Database Design, and Network Design are used to design every aspect of the planned system.

Develop – The researchers would finally develop the system for the problem during the development phase based on the design phase. The researchers used PHP, XAMPP, JAVASCRIPT, and HTML as technology.

Test - The researchers would test their system during the test phase. The researchers used Unit testing, Integration testing, Alpha testing, and Acceptance testing. If the system is not satisfactory, they may make some changes. The researchers concentrate on the issue that arises during this stage.

Deploy – After thorough testing and error trapping of the system, the researchers deployed it to aid the occurring concerns regarding ordering pet products/supplies online and allowing some/selected users to utilize the system to serve its purpose in the first place.

Evaluate – The researchers evaluate the deployed system to whether it has met the goal or the requirement. Hence, they gathered the suggestions/comments/recommendations of those selected users who had been allowed to utilize the system during the deployment phase. Through this, the researchers had already and openly accepted the critics of the users for the betterment of the system.

Planning/Conception-Initiation Phase

The problems that serve as the foundation for development are determined during the planning and conception-initiation phase.

Business Model Canvas

The business model canvas below outlines the foundations for researching how proponents create, deliver, and capture value.

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segment
<ul style="list-style-type: none"> ● Pet centers ● Pet organization s 	<ul style="list-style-type: none"> ● Planning ● Research ● Design ● Development 	<ul style="list-style-type: none"> ● A unified pet management system that provides pet services and pet products to the customer 	<ul style="list-style-type: none"> ● Short-term Agreement 	<ul style="list-style-type: none"> ● Pet owners ● Pet centers
	Key Resources <ul style="list-style-type: none"> ● Software Developers ● Software ● Internet ● Pet Products 		Channel <ul style="list-style-type: none"> ● Social Media ● Advertisement 	
Cost Structure		Revenue Streams		
<ul style="list-style-type: none"> ● Software Development ● Web Hosting Fee 		<ul style="list-style-type: none"> ● Maintenance Fee ● Advertisement 		

Figure 10: **Business Model Canvas**

Program Workflow

The program workflow described the sequential procedures to make up the PetSociety operation.

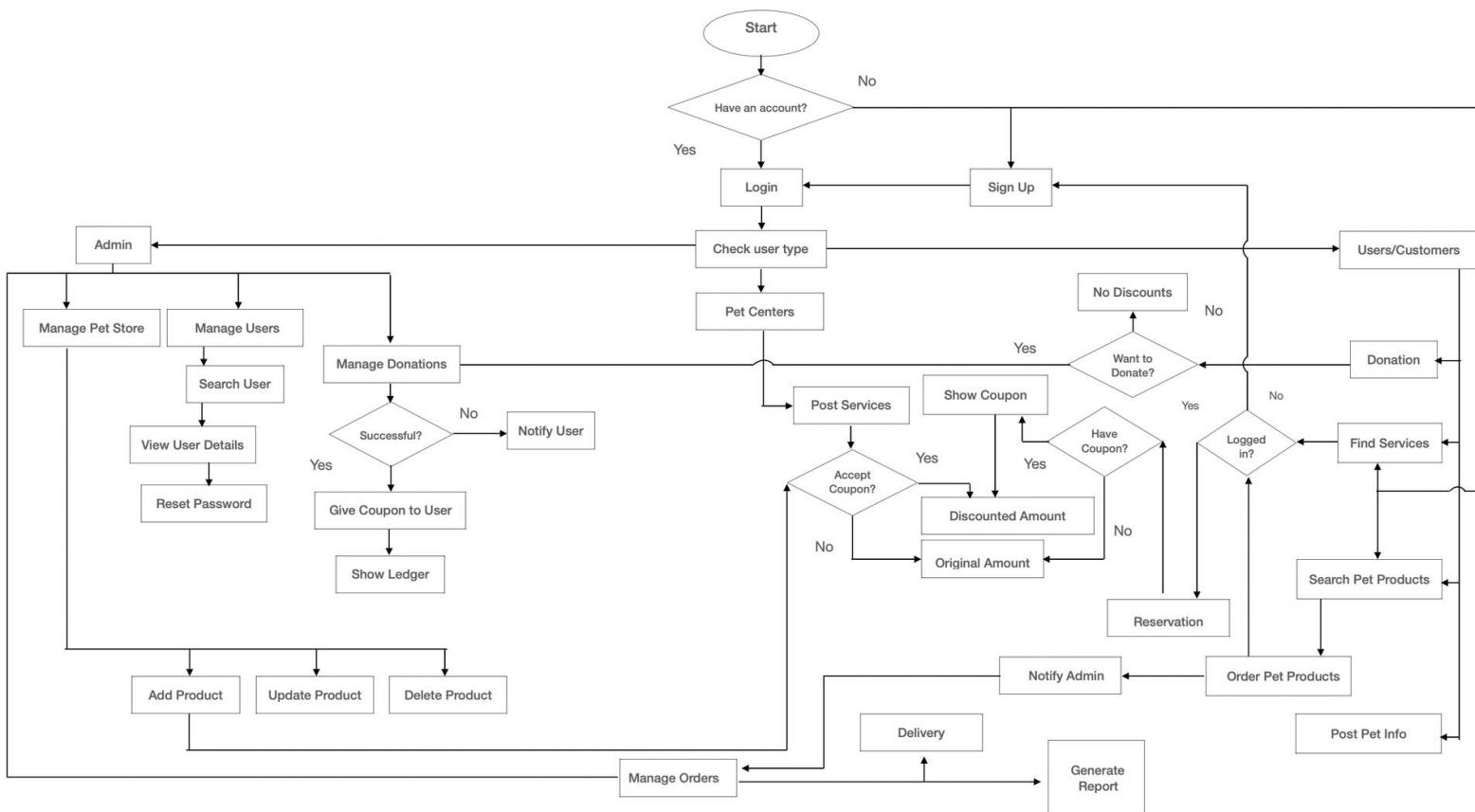


Figure 11: Program Workflow of PetSociety

The figure above showed the process of the Admin, Customer, and Pet center side.

Validation Board

The figure below depicted the validations and defines the study's assumptions.

Start here. Brainstorm with stickies, pull it over to the right to start your experiment.		Experiments	1	2	3	4	5
Who is your customer? Be as specific as possible.		Customer	Pet Owners	Pet Owners	Pet Owners		
What is the problem? Phrase it from your customer's perspective.		Problem	Having hard time in buying pet	Difficulties in finding pet services		Expensive pet products	
Define the solution only after you have validated a problem worth solving.		Solution	Develop a web app	Create feature that will help them finding products	The user can easily find pet services	The user can easily find pet services	
List the assumptions that must hold true, for your hypothesis to be true.		Riskiest Assumption	The user will use the web app and the system will provide the pet products, pet services, and other features				
Need help? Use these sentences to help construct your experiment.		Method & Success Criterion	Interview 8/10	Interview 8/10	Interview 8/10		
<u>To form a Customer/Problem Hypothesis:</u> I believe my customer has a problem achieving this goal.		<u>To form a Problem/Solution Hypothesis:</u> I believe this solution will result in quantifiable outcome.		GET OUT OF THE BUILDING!			
<u>To form your Assumptions:</u> In order for hypothesis to be true, assumption needs to be true.		<u>To Identify your Riskiest Assumption:</u> The assumption with the least amount of data, and core to the viability of my hypothesis is...		Result & Decision	6/10 Persevere	6/10 Persevere	6/10 Persevere
<u>Determine how you will test it:</u> The least expensive way to test my assumption is...		<u>Determine what success looks like:</u> I will run experiment with # of customers and expect a strong signal from # of customers.		Learning	PetSociety customer more likely to use the tool	The difficulties in finding products and services will be more easier.	Access in the web will encourage more participation

Figure 12: **PetSociety: Validation Board**

Customers, problems, solutions, and the riskiest assumptions were all brainstormed and tested by the proponents. Conduct an online survey. The results and lessons learned were derived from a survey.

Gantt chart

The Gantt chart illustrated each task and how many weeks it will need to accomplish it. It assists the project manager in planning, organizing, and documenting the work associated with the project

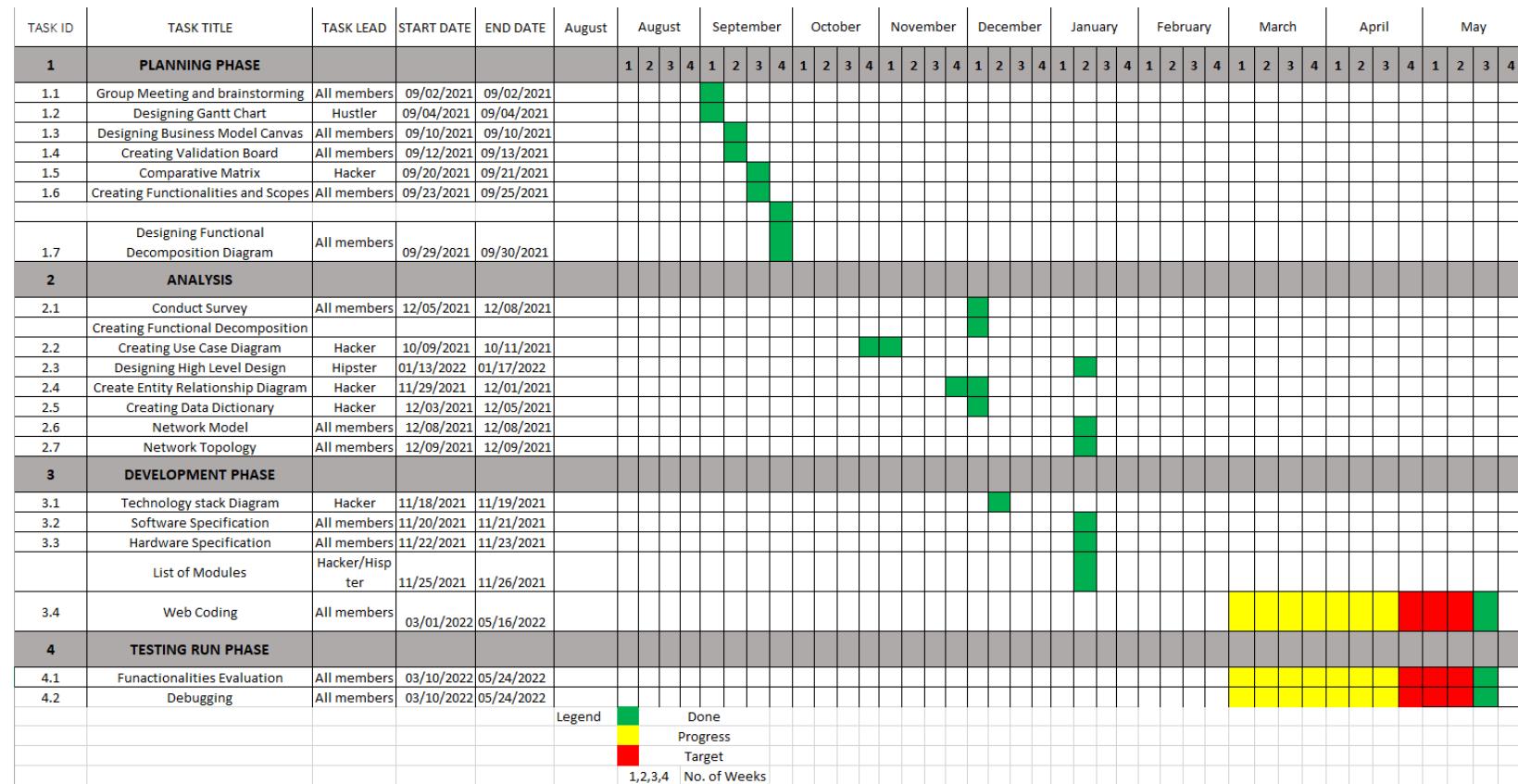
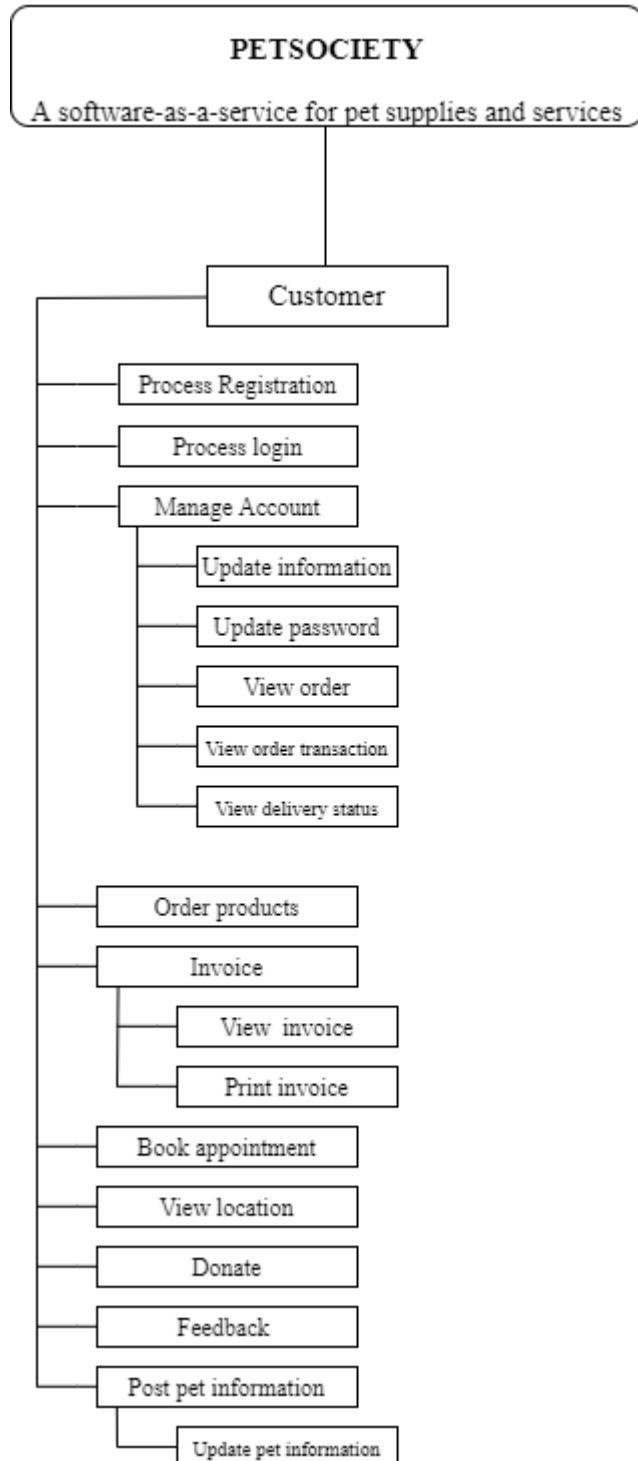
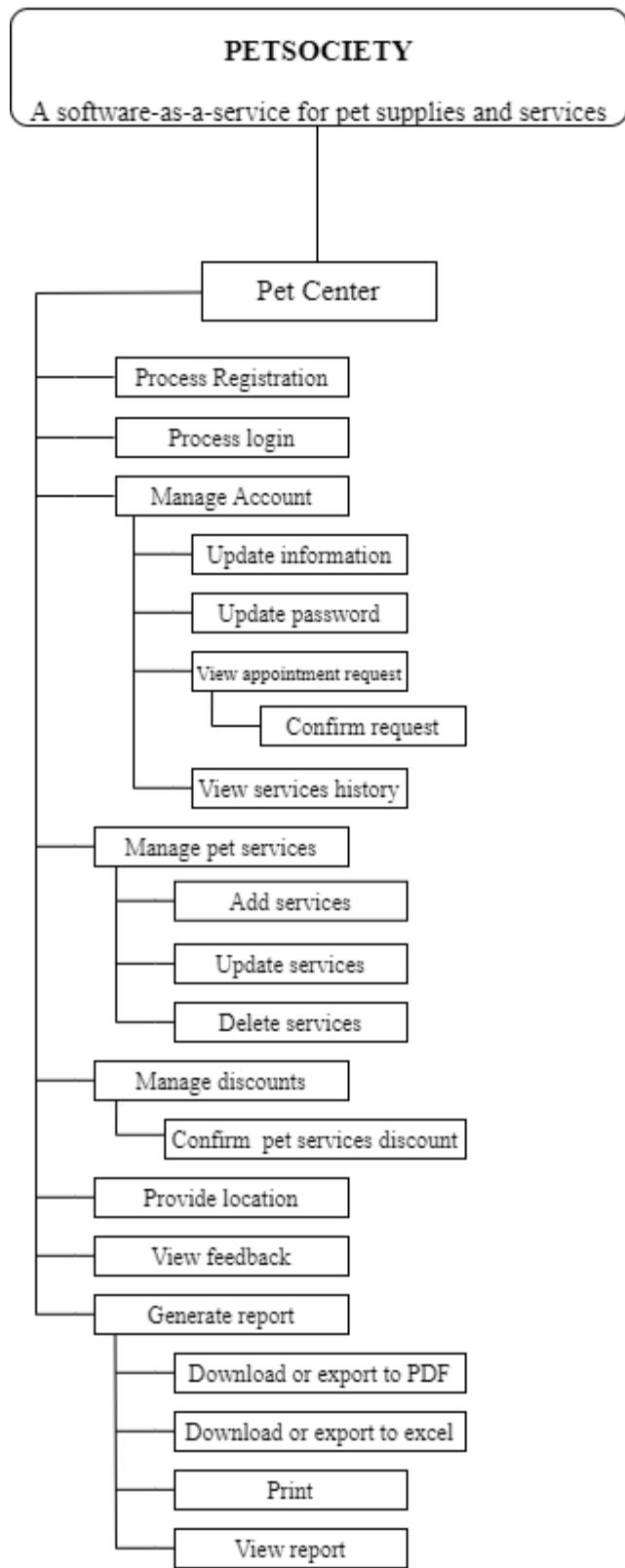


Figure 13: **Gantt Chart**

Functional Decomposition

The functional decomposition diagram, represents the system's breakdown of processes where they can learn about and use the system's various features.





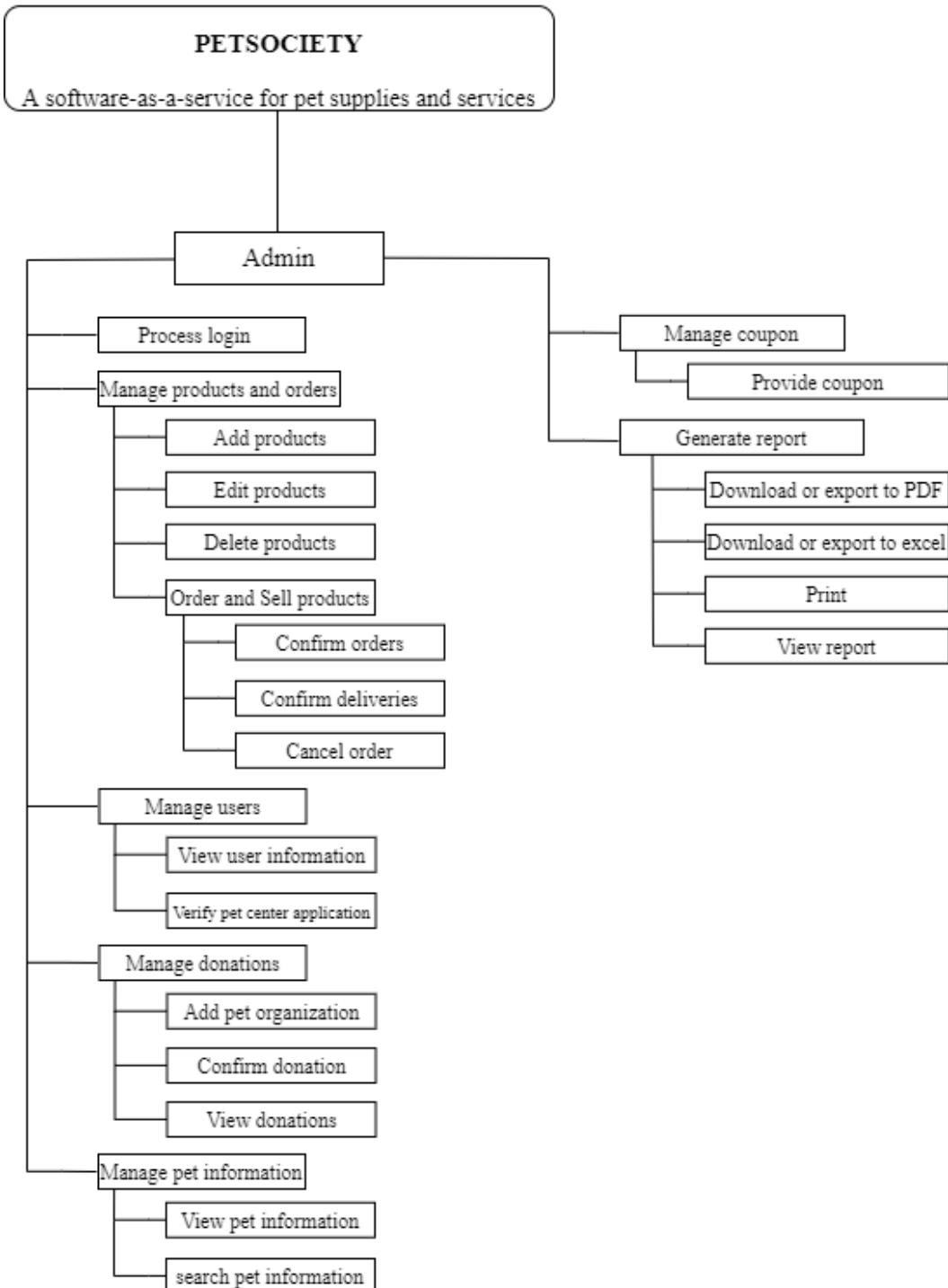


Figure 14: **Functional Decomposition of PetSociety**

The figure above showed the functional decomposition of the customer, pet center, and the admin. It shows the composition breakdown of functionalities.

Analysis Design Phase

The analysis-design phase is to developed and conceptualize the requirements for the proposed application. The researchers documented the criteria in a Use Case Diagram, Storyboard, Database Design, Entity Relationship Diagram, and the database's Data Dictionary.

Use Case Diagram

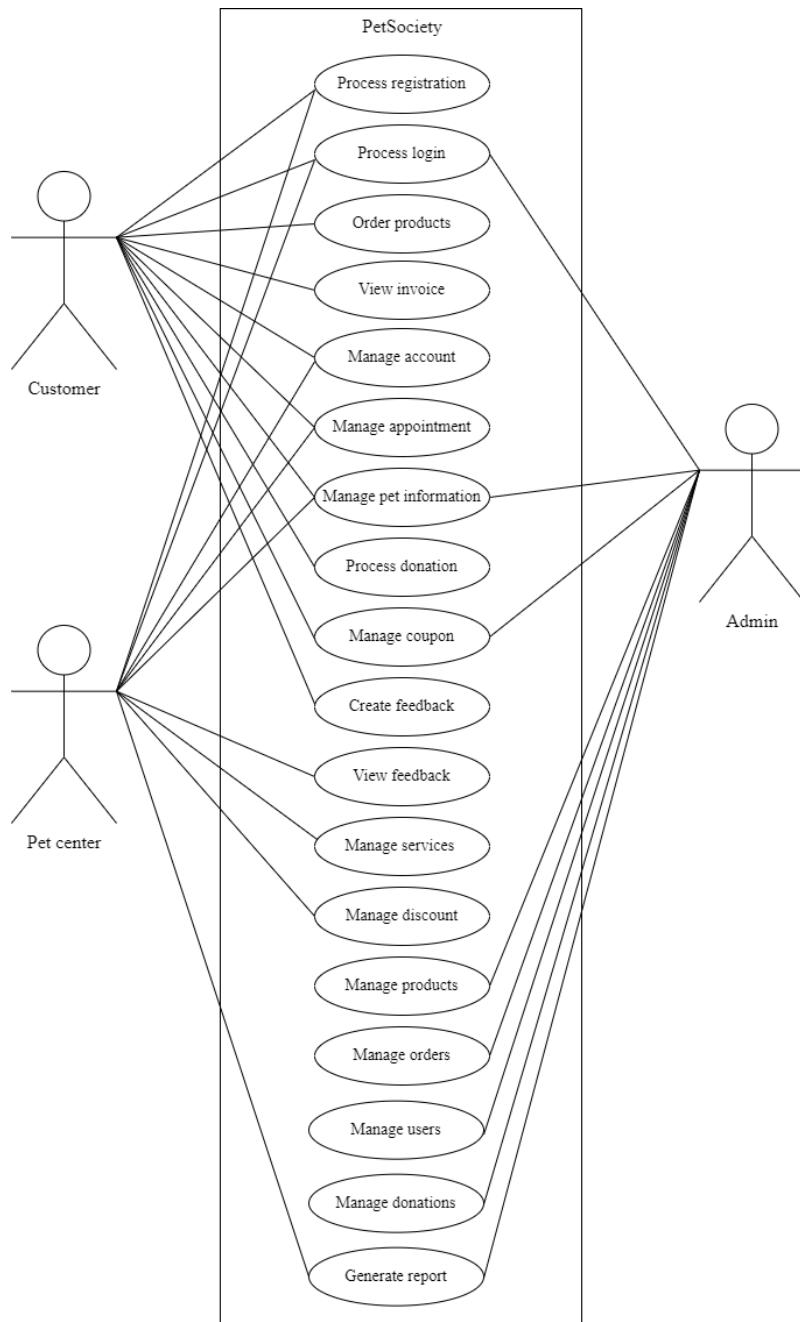


Figure 15: **Business Use case of PetSociety**

System Use Case Model – Customer Process Registration

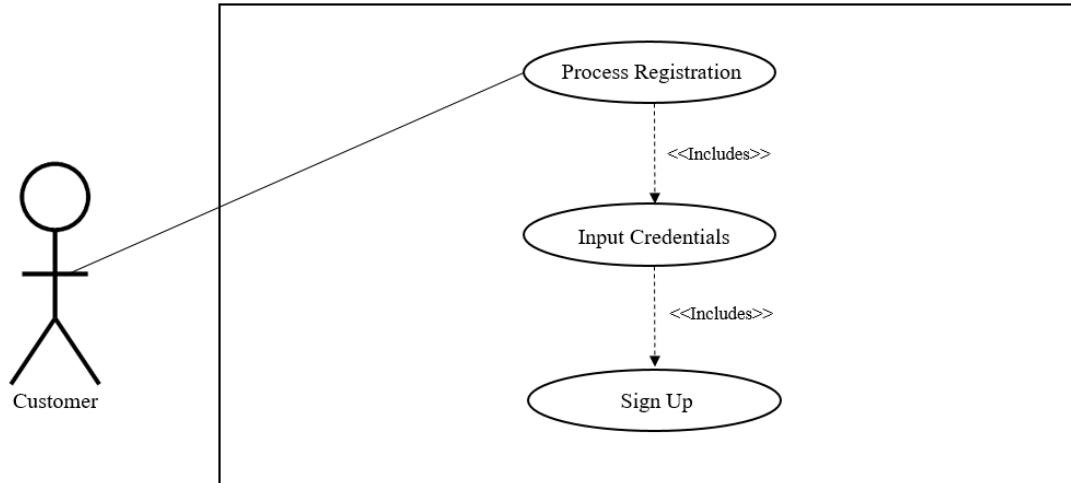


Figure 16: System Use Case Model - Customer Process Registration

Use Case Name	:	Process Registration
Brief Description	:	The customers wants to register into the system.
Trigger	:	They want to access the system.
Triggering Actor	:	Customers
Benefiting Actor	:	Customers
Pre – Condition	:	The users must input their credentials.
Post – Condition	:	The users can access their accounts.

Flow of Activities	
Actors	System
Customer	
1. Input Credentials	
2. Click signup button	3. Verify credentials 3.1. The inputs are valid 3.1.1. The customer will login the registered credentials 3.2. The inputs are invalid 3.2.1. The system will display error message.

System Use Case Model – Pet center Process Registration

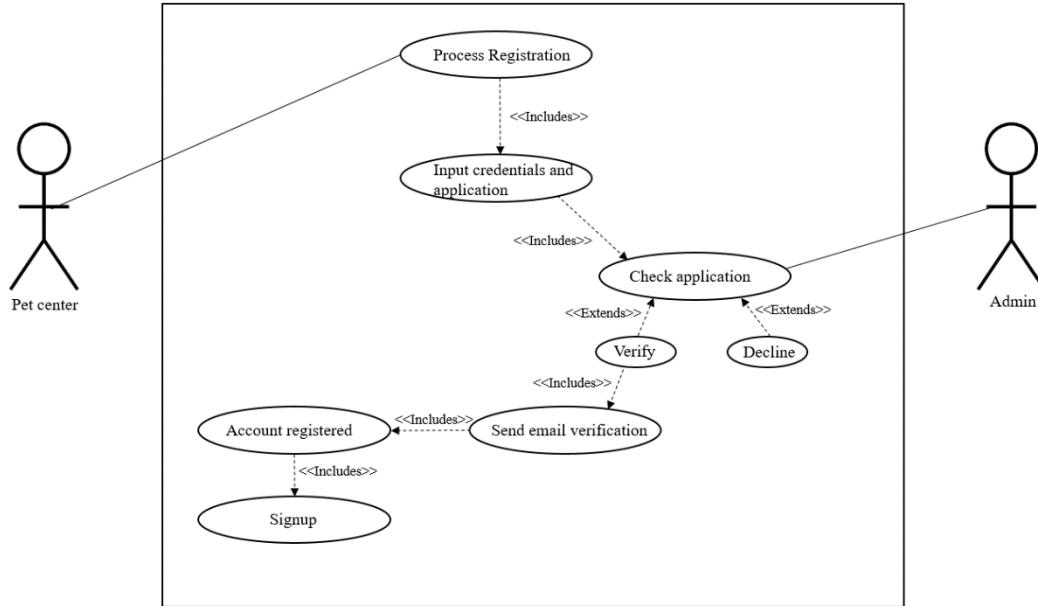


Figure 17: **System Use Case Model - Pet center Process Registration**

Use Case Name	:	Process Registration
Brief Description	:	The Pet center wants to register.
Trigger	:	They want to access the system
Triggering Actor	:	Pet center and Admin
Benefiting Actor	:	Pet center and Admin
Pre – Condition	:	The pet center must input their credentials.
Post – Condition	:	The pet center can access their accounts.

Flow of Activities	
Actors	System
Pet center and Admin	
1. Input Credentials	
2. Admin will check the application	3. If the applications are verified, the pet center will receive a verification email.
4. Click signup button	5. Pet center will redirect to login page using their registered credentials.

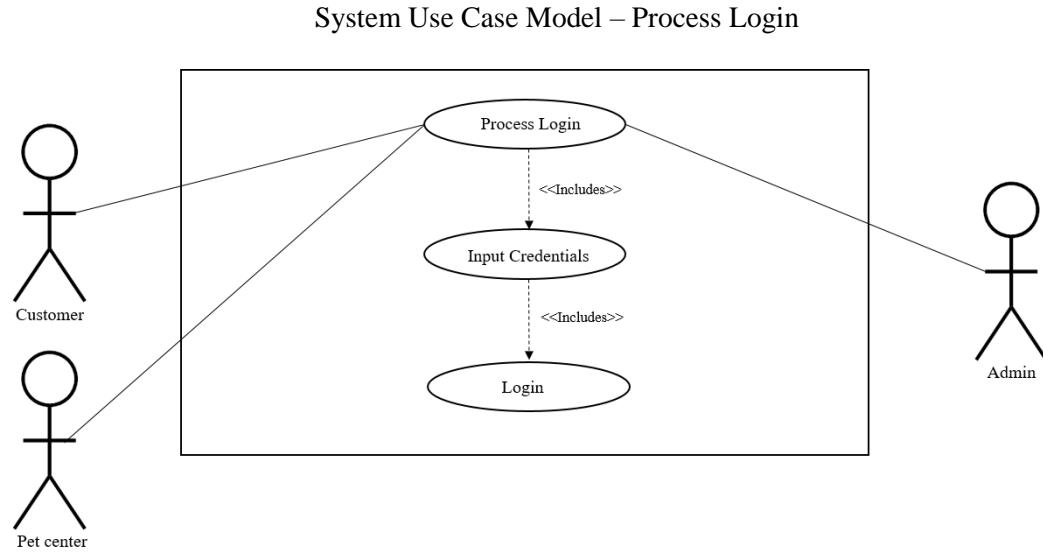


Figure 18: **System Use Case Model - Process Login**

Use Case Name	:	Process Login
Brief Description	:	The customer, pet center and admin wants to login.
Trigger	:	They want to access their account.
Triggering Actor	:	Customer, Pet center, Admin
Benefiting Actor	:	Customer, Pet center, Admin
Pre – Condition	:	Customer and pet center must input their credentials.
Post – Condition	:	Customer and pet center can access their accounts.

Flow of Activities	
Actors	System
Customer, Pet center and Admin	
1. Input Credentials	
2. Click login button	3. Verify credentials 3.1. Valid inputs 3.1.1. The users will redirect to the homepage. 3.2. Invalid inputs 3.2.1. The system will display error message.

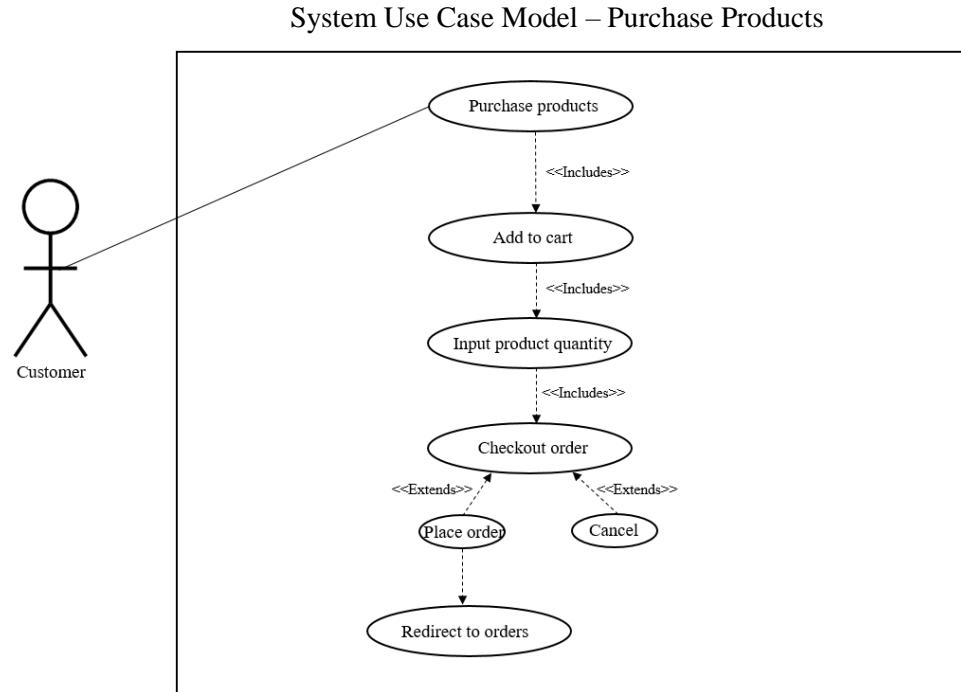


Figure 19: **System Use Case Model - Purchase Product**

Use Case Name	:	Order Products
Brief Description	:	The customer will make orders.
Trigger	:	The customer wants to order pet products.
Triggering Actor	:	Customer
Benefiting Actor	:	Customer
Pre – Condition	:	The customer must navigate to pet store.
Post – Condition	:	The customer can order pet products. .

Flow of Activities	
Actors	System
Customer	
1. User go to the pet store	
2. Select product	
3. Click add to cart button	4. The added item will go to cart
5. Place order	6. Calculate total amount
7. Checkout	8. The items will go to orders with status of “pending”.

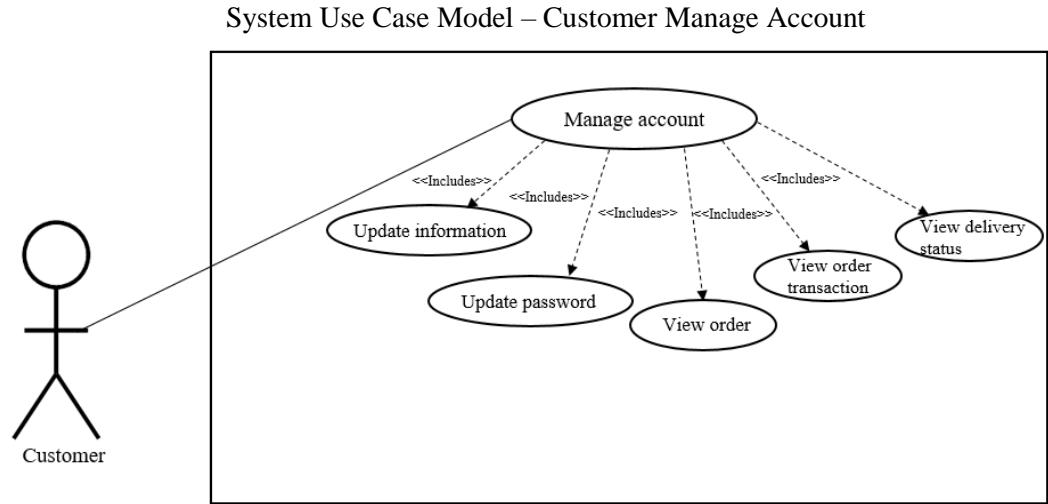
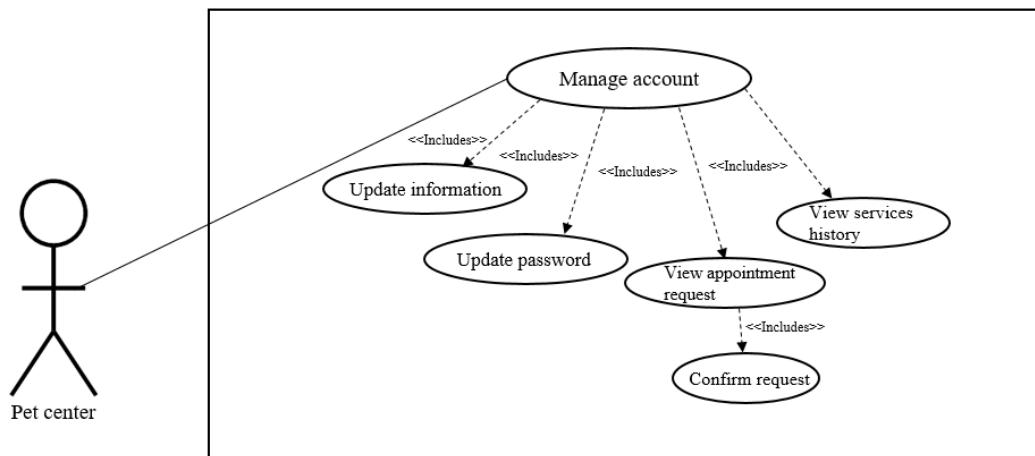


Figure 20: **System Use Case Model - Customer Manage Account**

Use Case Name	:	Customer Manage Account
Brief Description	:	The customers can manage their accounts.
Trigger	:	The customers wants to view their orders and update their account.
Triggering Actor	:	Customer
Benefiting Actor	:	Customer
Pre – Condition	:	The customer must click their profile.
Post – Condition	:	The customer can view their orders and update their info.

Flow of Activities	
Actors	System
Customer	
1. Customer will click their profile	
2. Select update information	
3. Select update password	
4. Select order	
	5. View order
	6. View order transaction
	7. View delivery status

System Use Case Model – Pet center Manage Account

Figure 21: System Use Case Model - Pet center Manage Account

Use Case Name	:	Pet center Manage Account
Brief Description	:	The pet center can manage their accounts.
Trigger	:	The pet center wants to view the customer's appointment request and service history.
Triggering Actor	:	Pet center
Benefiting Actor	:	Pet center
Pre – Condition	:	The pet center must click their profile.
Post – Condition	:	The pet center can view the customer appointment request and the centers service history.

Flow of Activities	
Actors	System
Pet center	
1. Pet center will click their profile	
2. Update information	
3. Update password	
	4. View appointment
6. Confirm request	
	7. View service history

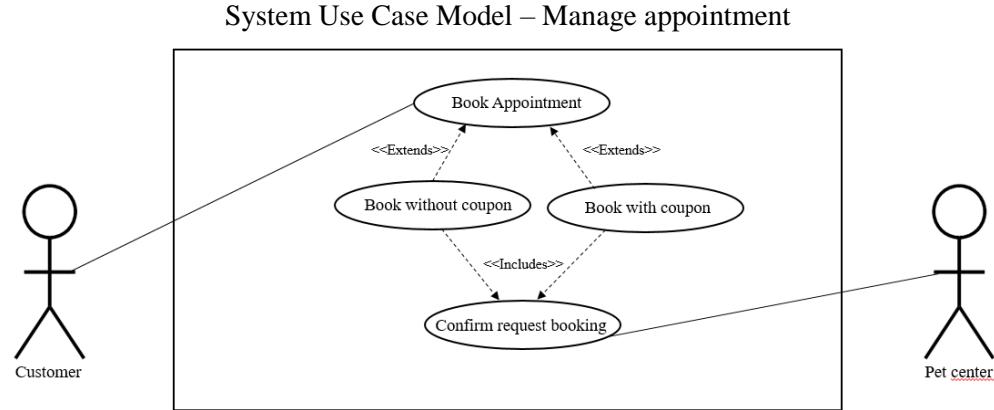


Figure 22: **System Use Case Model - Manage Appointment**

Use Case Name	:	Manage Appointment
Brief Description	:	The customer will book appointment to pet center.
Trigger	:	The customer wants to book appointment.
Triggering Actor	:	Customer and Pet center
Benefiting Actor	:	Customer and Pet center
Pre – Condition	:	The customer must select pet services first and select their preferred date and time for appointment.
Post – Condition	:	The pet center will confirm the customer's appointment request.

Flow of Activities	
Actors	System
Customer and Pet center	
1. Customer will book an appointment.	
2. Pet center will confirm appointment request.	3. After confirming, the system will send a confirmation email.

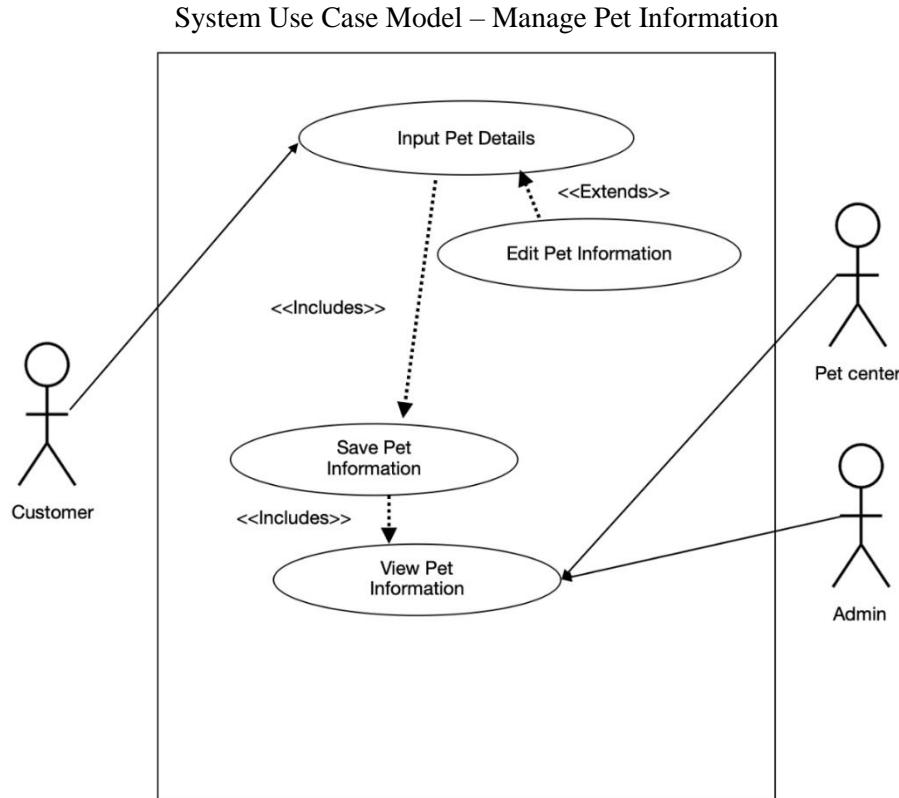


Figure 23: **System Use Case Model – Manage Pet Information**

Use Case Name	:	Manage Pet Information
Brief Description	:	The customer will post their pet information.
Trigger	:	The customer wants to post their pet information.
Triggering Actor	:	Customer and Pet center
Benefiting Actor	:	Customer and Pet center
Pre – Condition	:	The customer must post their pet information.
Post – Condition	:	The pet center can view the customer's pet info.

Flow of Activities	
Actors	System
Customer and Pet center	
1. Customer will post information of their pets.	
	3. The posted information will be fetched for pet center to view their customer's pet information.

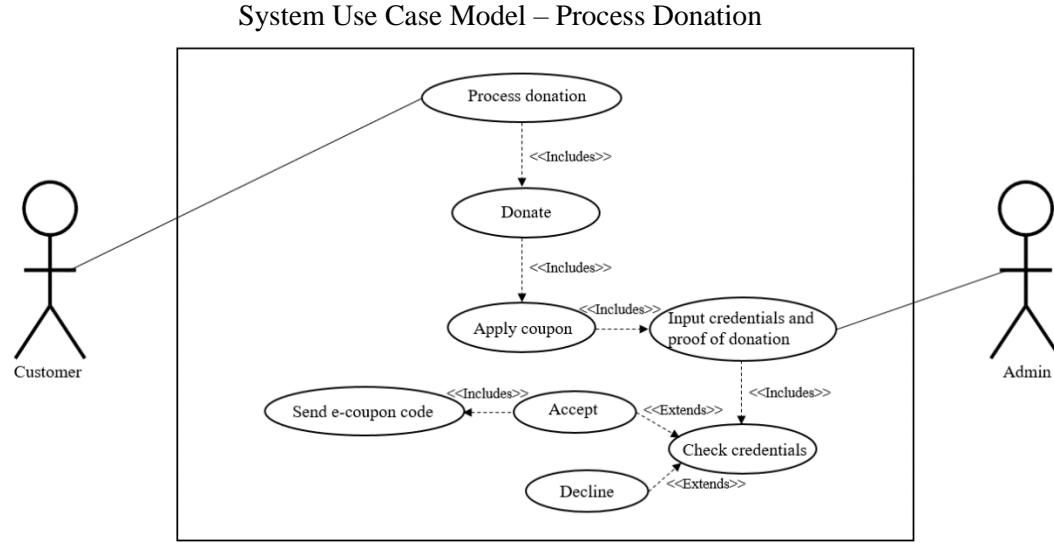


Figure 24: **System Use Case Model – Process Donation**

Use Case Name	:	Process Donation
Brief Description	:	The customer will donate to pet org.
Trigger	:	The customer wants to donate and apply for coupon.
Triggering Actor	:	Customer and Admin
Benefiting Actor	:	Customer and Admin
Pre – Condition	:	The customer must apply for coupon.
Post – Condition	:	The admin will verify application.

Flow of Activities	
Actors	System
Customer and Admin	
1. Customer will navigate to donation	
2. Click “apply for coupon” button	
3. Input credentials and proof of donation	
4. Admin will verify the proof of donation	
	5. After verifying, the system will send an e – coupon code.

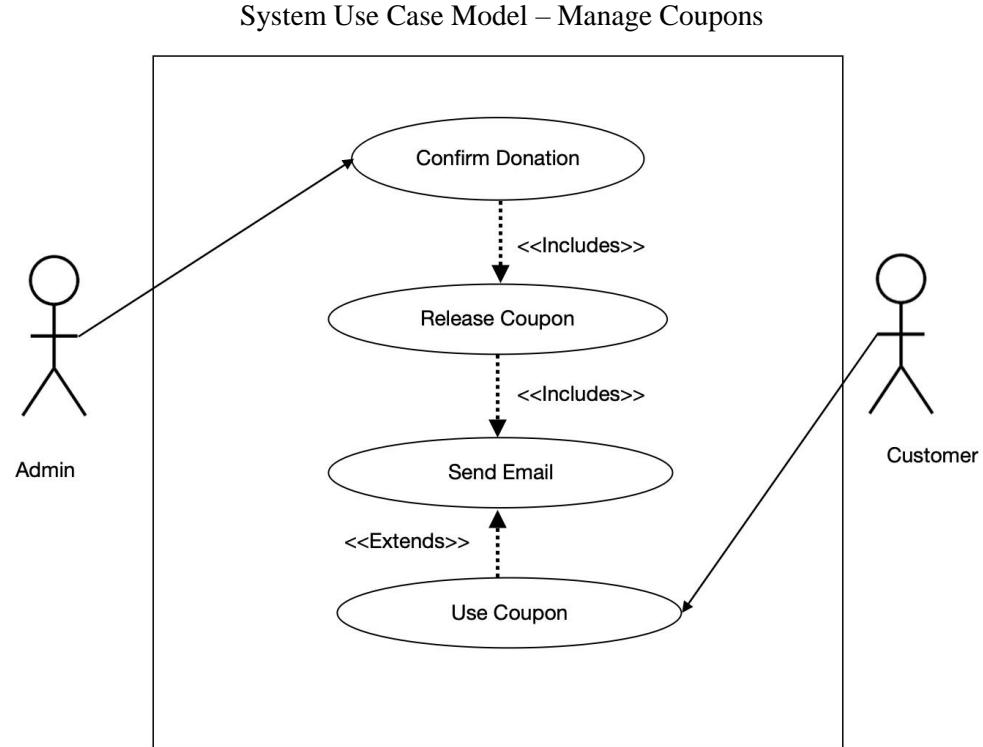


Figure 25: **System Use Case Model - Manage Coupons**

Use Case Name	:	Manage Coupons
Brief Description	:	The admin will generate coupon.
Trigger	:	The customer wants to have a coupon.
Triggering Actor	:	Admin and Customer
Benefiting Actor	:	Admin and Customer
Pre – Condition	:	The customer must apply for coupon.
Post – Condition	:	The admin will verify application.

Flow of Activities	
Actors	System
Admin and Customer	
1. Customer will navigate to donation	
2. Click “apply for coupon” button	
3. Input credentials and proof of donation	
4. Admin will verify the proof of donation	
	5. After verifying, the system will send an e – coupon code.

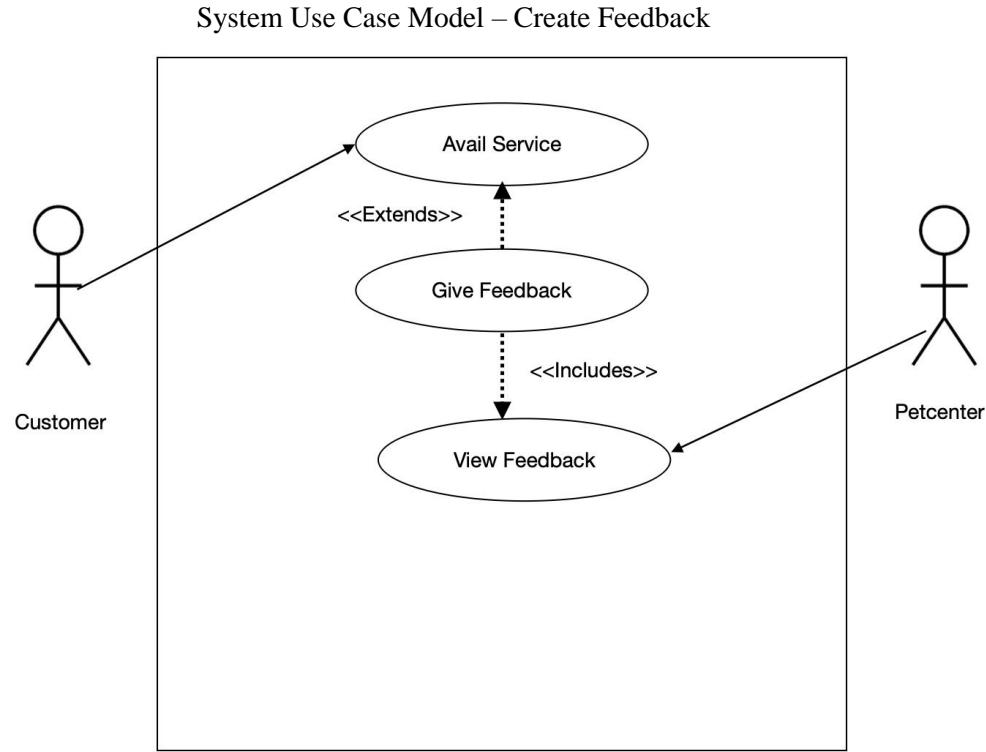


Figure 26: **System Use Case Model - Create Feedback**

Use Case Name	:	Create Feedback
Brief Description	:	The customer create feedback.
Trigger	:	The customer wants to give feedback.
Triggering Actor	:	Customer and Pet center
Benefiting Actor	:	Customer and Pet center
Pre – Condition	:	The customer must avail services first.
Post – Condition	:	The customer can give feedback and the pet center can view the feedbacks

Flow of Activities	
Actors	System
Customer and Pet center	
1. Customer will avail services	
	2. The feedback section will enable to the customer who avail the services
3. Customer gives feedback	
4. The pet center views the feedbacks	

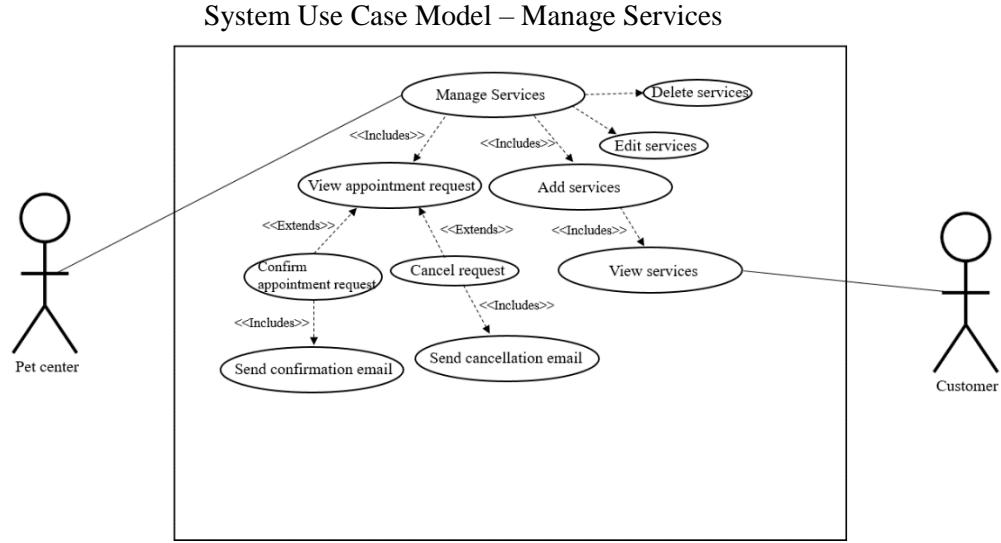


Figure 27: **System Use Case Model - Manage Services**

Use Case Name	:	Manage Services
Brief Description	:	The pet center will manage services.
Trigger	:	The pet center wants to manage services.
Triggering Actor	:	Pet center and Customer
Benefiting Actor	:	Pet center and Customer
Pre – Condition	:	The pet center must add services.
Post – Condition	:	The pet center can add services and confirm appointment booking.

Flow of Activities	
Actors	System
Pet center and Customer	
1. Pet center will go to the dashboard	
2. Add services	
	3. The added services will redirect to the list of services.
4. Confirm appointment request	
	5. After confirming request, the system will send confirmation email.
6. Search coupon for discount	7. Once the coupon is already used, the coupon will automatically be deleted.

System Use Case Model – Manage Discounts

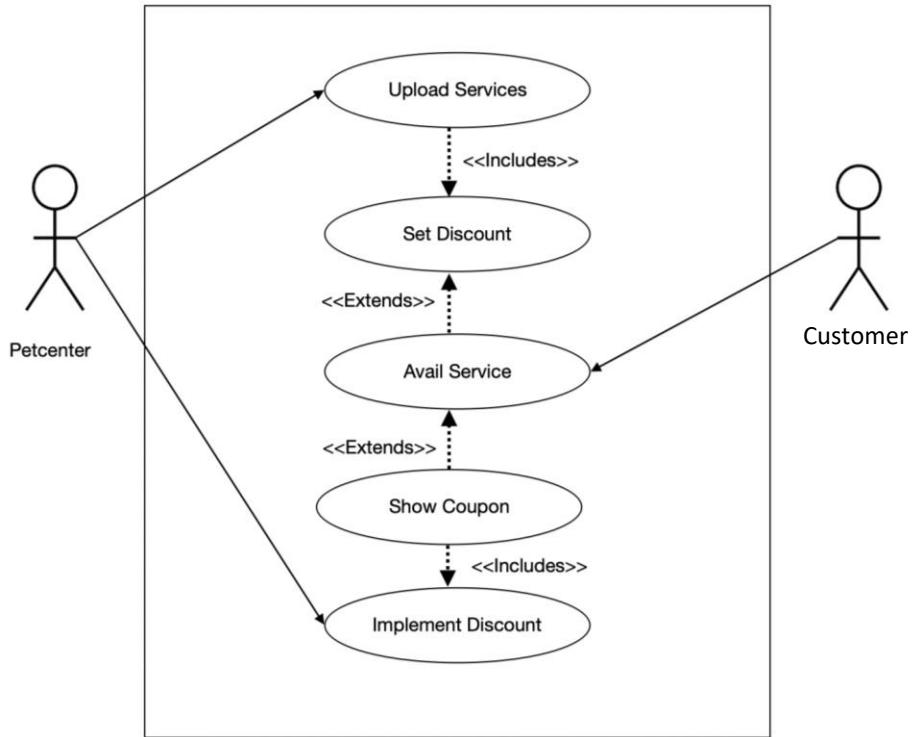


Figure 28: **System Use Case Model - Manage Discounts**

Use Case Name	:	Manage Discounts
Brief Description	:	The pet center will manage discounts.
Trigger	:	The customers wants to use their coupons.
Triggering Actor	:	Pet center and Customer
Benefiting Actor	:	Pet center and Customer
Pre – Condition	:	The pet center must add services.
Post – Condition	:	The customer can avail services with discounts.

Flow of Activities	
Actors	System
Pet center and Customer	
1. Pet center will add their services	
	2. The system will ask if the service has a discount.
3. Customer will book services with or without discounts	

System Use Case Model – Manage Products

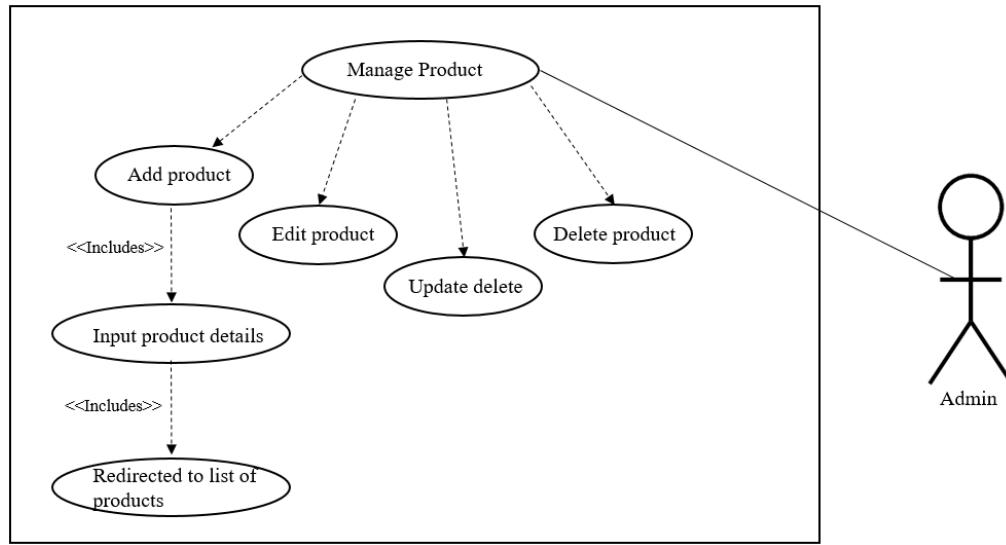


Figure 29: **System Use Case Model - Manage Products**

Use Case Name	:	Manage Products
Brief Description	:	The admin will manage pet products.
Trigger	:	The customers wants to buy pet products.
Triggering Actor	:	Pet center and Customer
Benefiting Actor	:	Pet center and Customer
Pre – Condition	:	The admin must add pet products.
Post – Condition	:	The customer can buy pet products.

Flow of Activities	
Actors	System
Pet center and Customer	
1. Admin will add products.	
	2. The added pet products will redirected to the pet store.
3. Customer can purchase products.	

System Use Case Model – Manage Order

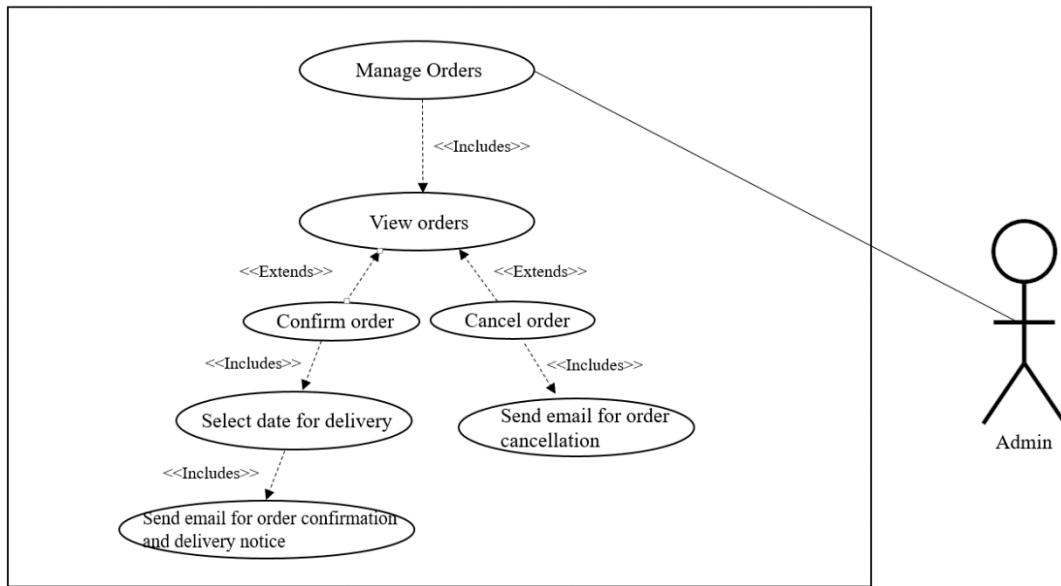


Figure 30: **System Use Case Model - Manage Orders**

Use Case Name	:	Manage Orders
Brief Description	:	The admin will manage orders.
Trigger	:	The customer order pet products.
Triggering Actor	:	Customer
Benefiting Actor	:	Admin
Pre – Condition	:	The admin must navigate to orders.
Post – Condition	:	The admin can confirm orders.

Flow of Activities	
Actors	System
Admin	
1. Admin will go to orders	
2. Select date to deliver	
3. Confirm order	
	4. The confirmed orders will go to “Deliveries”
	5. The status will change “for deliveries” in the users end.
	8. Will send confirmation email and notice for delivery.

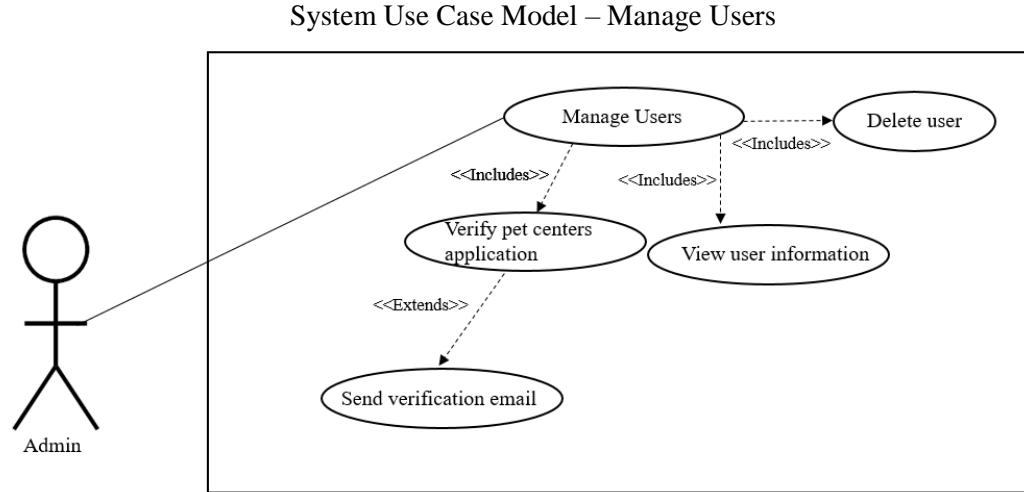


Figure 31: **System Use Case Model - Manage Users**

Use Case Name	:	Manage Users
Brief Description	:	The admin will manage users.
Trigger	:	The admin will view and delete users.
Triggering Actor	:	Admin
Benefiting Actor	:	Admin
Pre – Condition	:	The admin must verify accounts.
Post – Condition	:	The admin will verify application and accounts.

Flow of Activities	
Actors	System
Admin	
1. Admin will verify the pet center's application	
	2. After verifying, the system will email the pet center.
3. The admin can view and delete user	

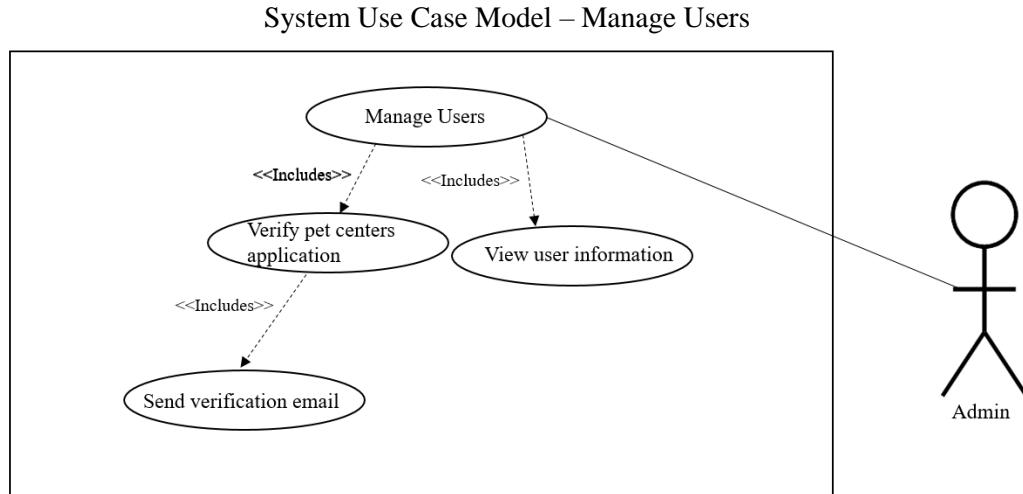


Figure 32: **System Use Case Model - Manage Users**

Use Case Name	:	Manage Users
Brief Description	:	The admin will manage user's information.
Trigger	:	The customers and pet centers wants to register.
Triggering Actor	:	Customer and Pet center
Benefiting Actor	:	Admin
Pre – Condition	:	The admin must navigate to manage users.
Post – Condition	:	The admin can view and confirm users.

Flow of Activities	
Actors	System
Admin	
1. Admin will go to manage users	
2. View users	
3. Confirm users	
	4. Will send confirmation email to the users.

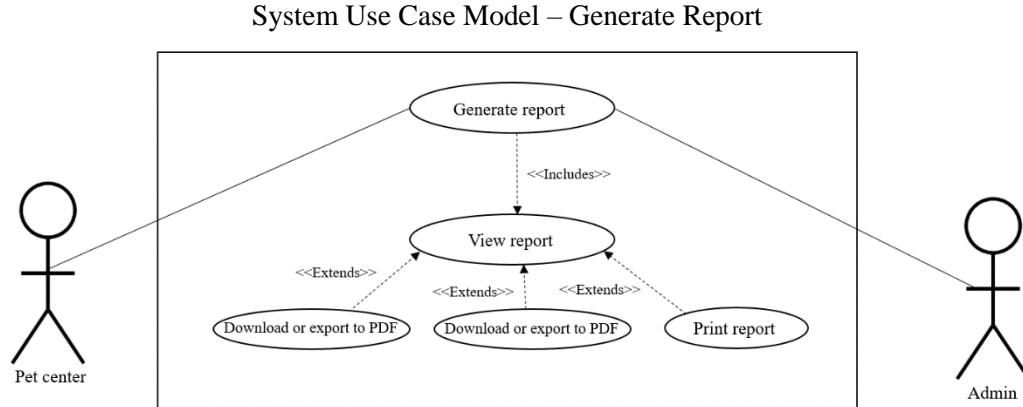


Figure 33: **System Use Case Model - Generate Report**

Use Case Name	:	Generate Report
Brief Description	:	The admin and pet center can generate report.
Trigger	:	The admin and pet center wants to generate report.
Triggering Actor	:	Admin and Pet center
Benefiting Actor	:	Admin and Pet center
Pre – Condition	:	The admin and pet center must navigate to their report and services history.
Post – Condition	:	The admin and pet center can download or print the reports.

Flow of Activities	
Actors	System
Admin and Pet center	
1. Admin will navigate to the reports.	
2. Pet center will navigate to their services history	
	4. The can download or print the reports.

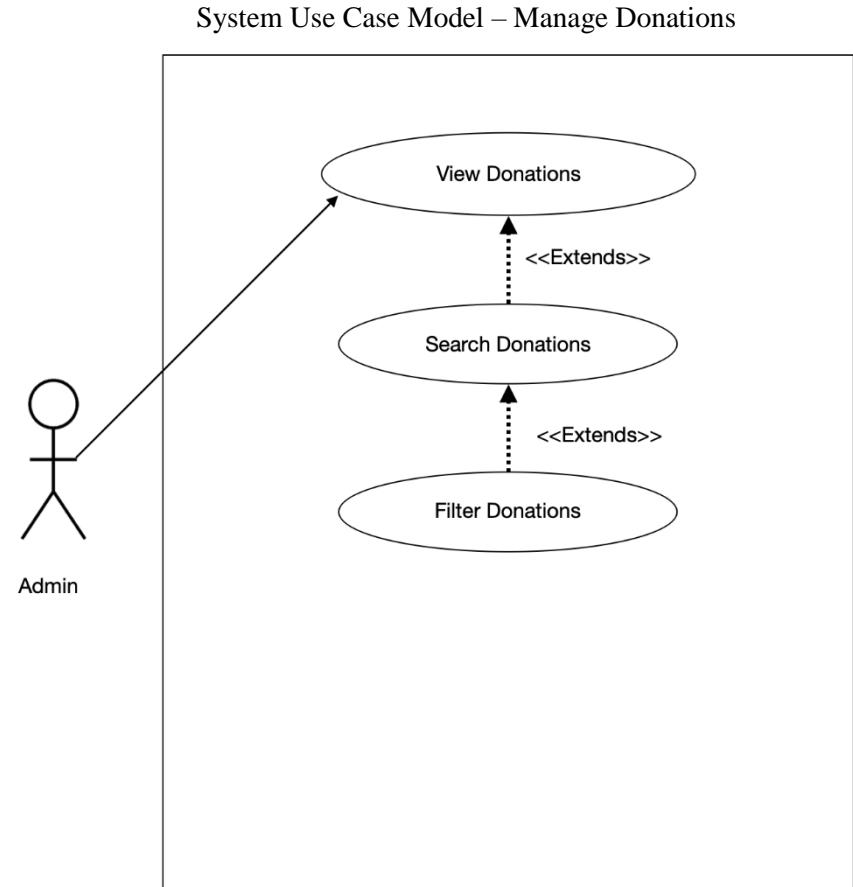


Figure 34: **System Use Case Model - Manage Donations**

Use Case Name	:	Manage Donations
Brief Description	:	The admin can manage donations.
Trigger	:	The admin wants to manage the donations.
Triggering Actor	:	Customer
Benefiting Actor	:	Admin.
Pre – Condition	:	The customers must donate.
Post – Condition	:	The admin can view and manage donations.

Flow of Activities	
Actors	System
Customer and Admin	
1. Customers will donate to the pet organization	
	2. Retrieve the donation information
3. The admin can view and manage donations.	

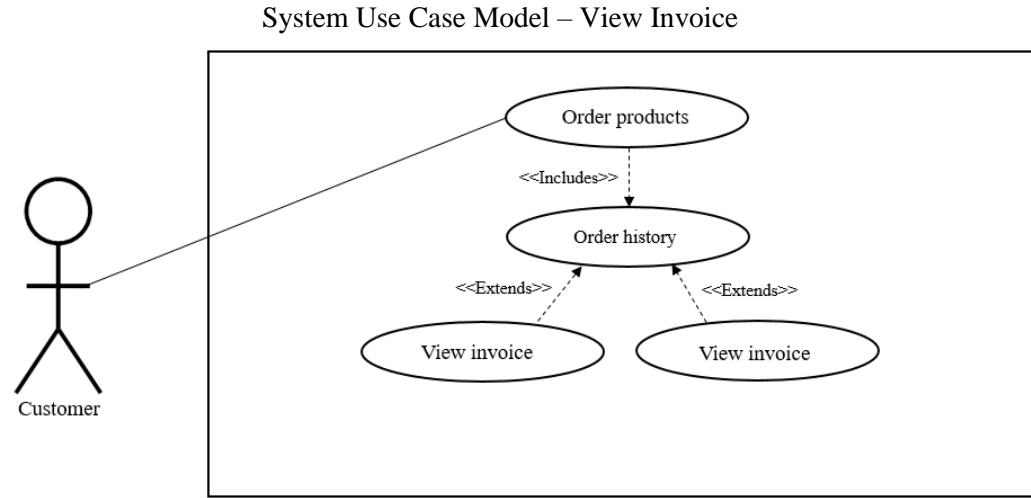


Figure 35: **System Use Case Model - View Invoice**

Use Case Name	:	View Invoice
Brief Description	:	The admin can generate invoice.
Trigger	:	The admin wants to generate invoice..
Triggering Actor	:	Customer
Benefiting Actor	:	Admin
Pre – Condition	:	The customers must order.
Post – Condition	:	The admin can generate order.

Flow of Activities	
Actors	System
Customer and Admin	
1. Customers will order products	
	2. Notify the admin
3. Admin will confirm orders	
	4. Generate invoice
5. Print invoice	

Activity Diagram

PROCESS NAME: CUSTOMER PROGRESS REGISTRATION

PURPOSE: The diagram below is the illustration of process registration for the users to understand registering an account.

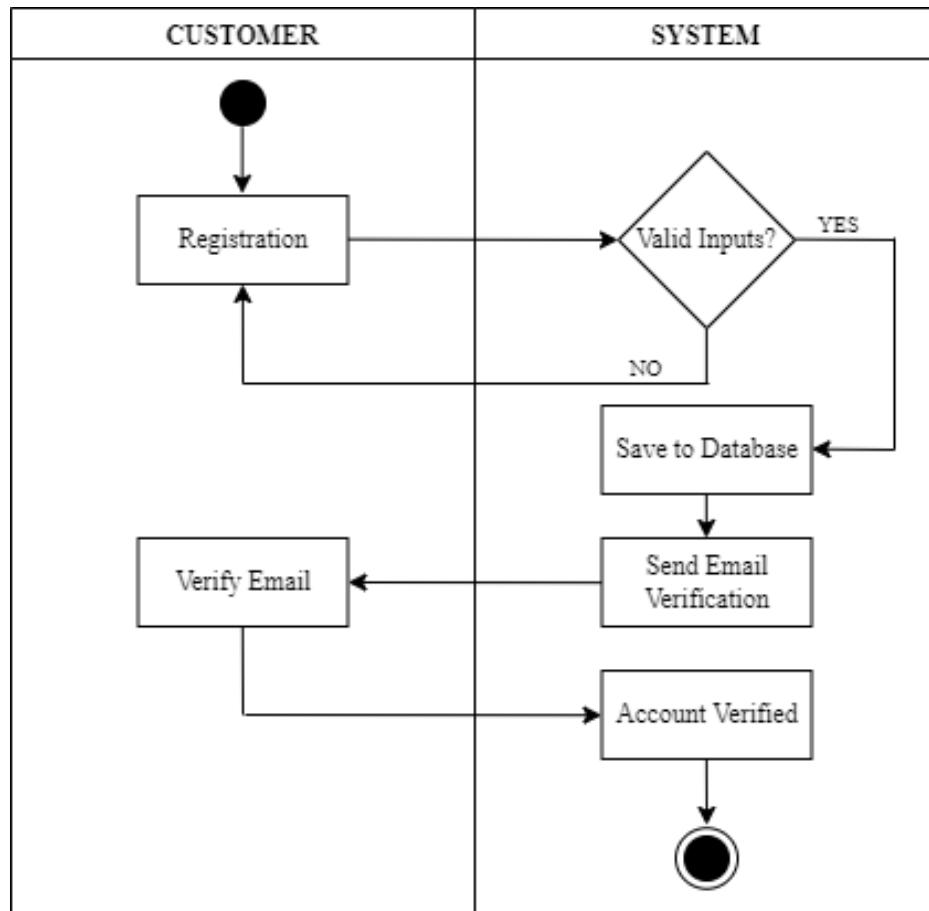


Figure 36: System Use Case Model – Customer Progress Registration

PROCESS NAME: PET CENTER PROCESS REGISTRATION

PURPOSE: The diagram below is the illustration of process registration for the users to understand registering an account

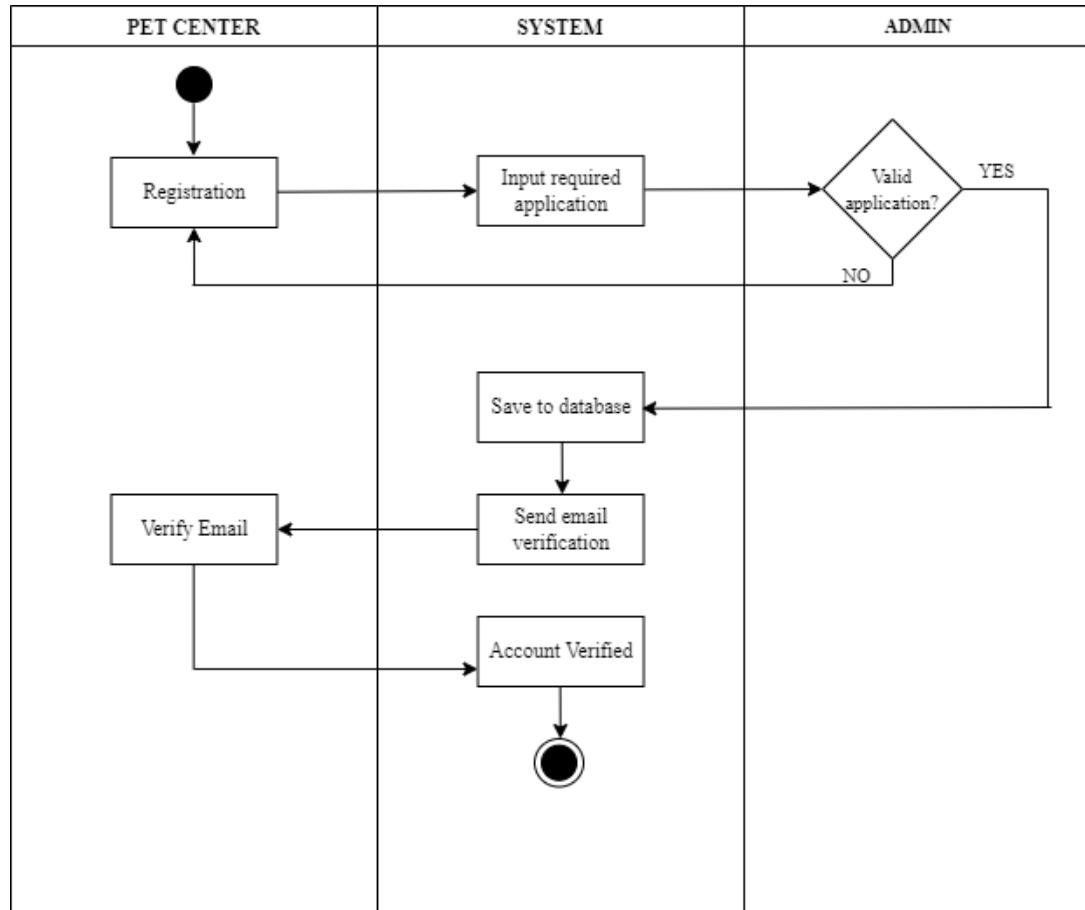


Figure 37: System Use Case Model - Pet Center Process Registration

PROCESS NAME: PROCESS LOGIN

PURPOSE: The diagram below is the illustration of process login for the users to understand login an account.

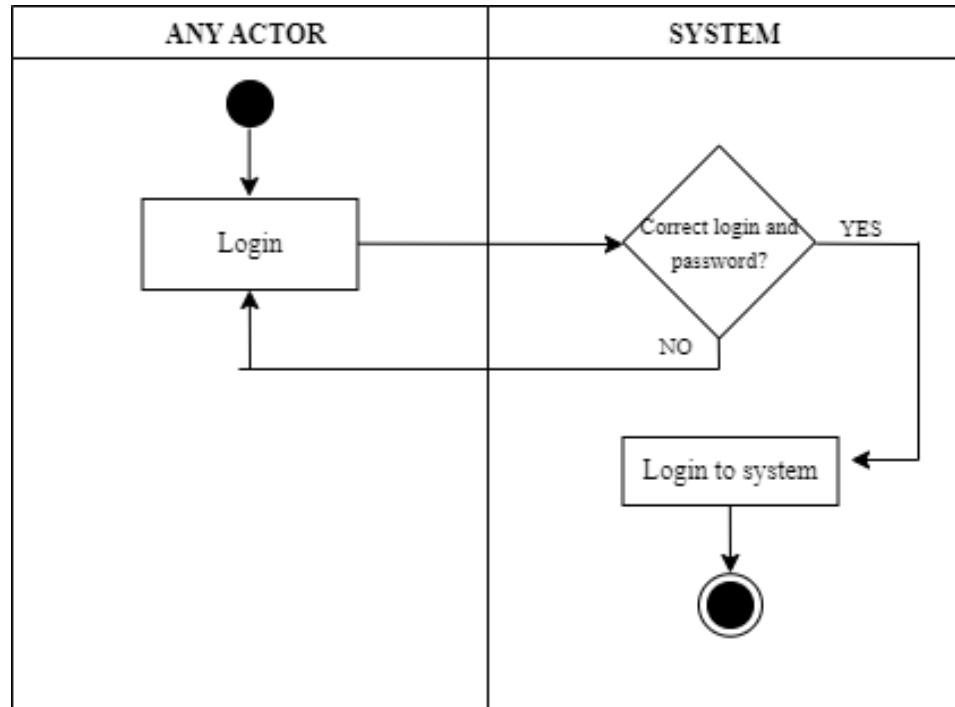


Figure 38: System Use Case Model - Process Login

PROCESS NAME: PURCHASE PRODUCT

PURPOSE: The diagram below is the illustration of purchasing product of customer to understand the process of purchasing product.

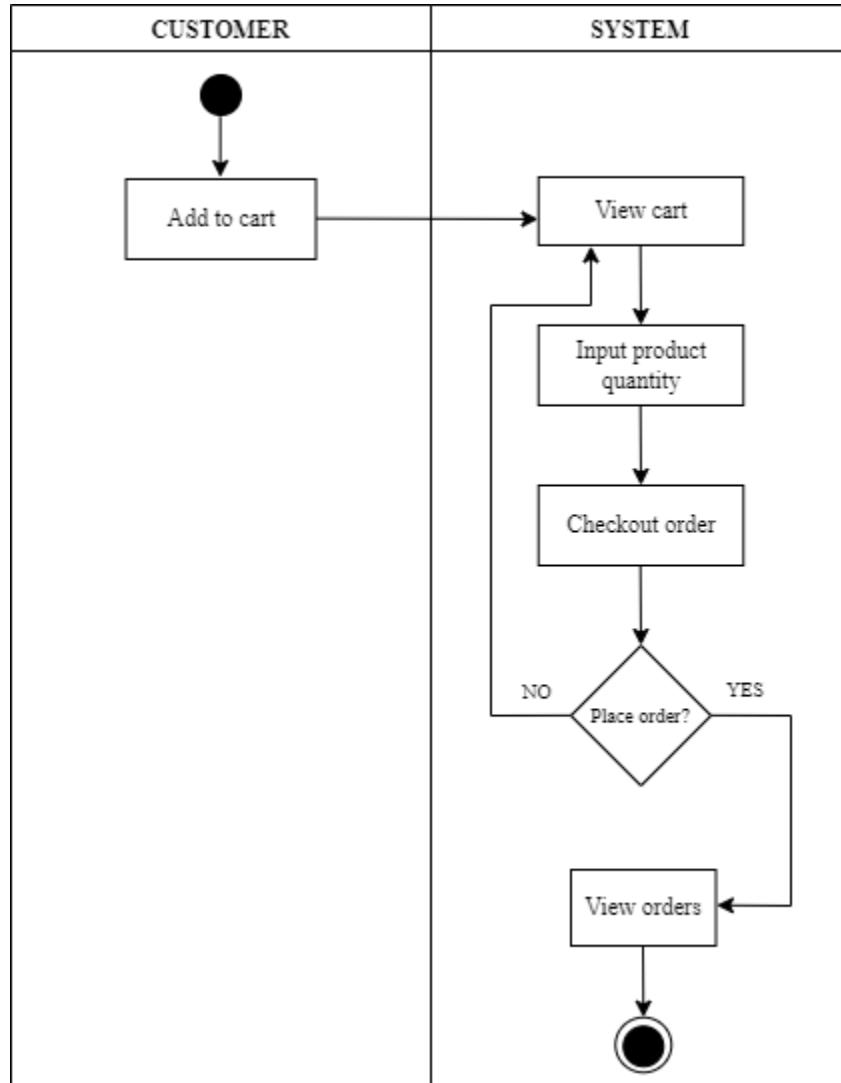


Figure 39: System Use Case Model - Purchase Product

PROCESS NAME: MANAGE ACCOUNT INFORMATION

PURPOSE: The diagram below is the illustration of update account information for the users to understand updating an account information.

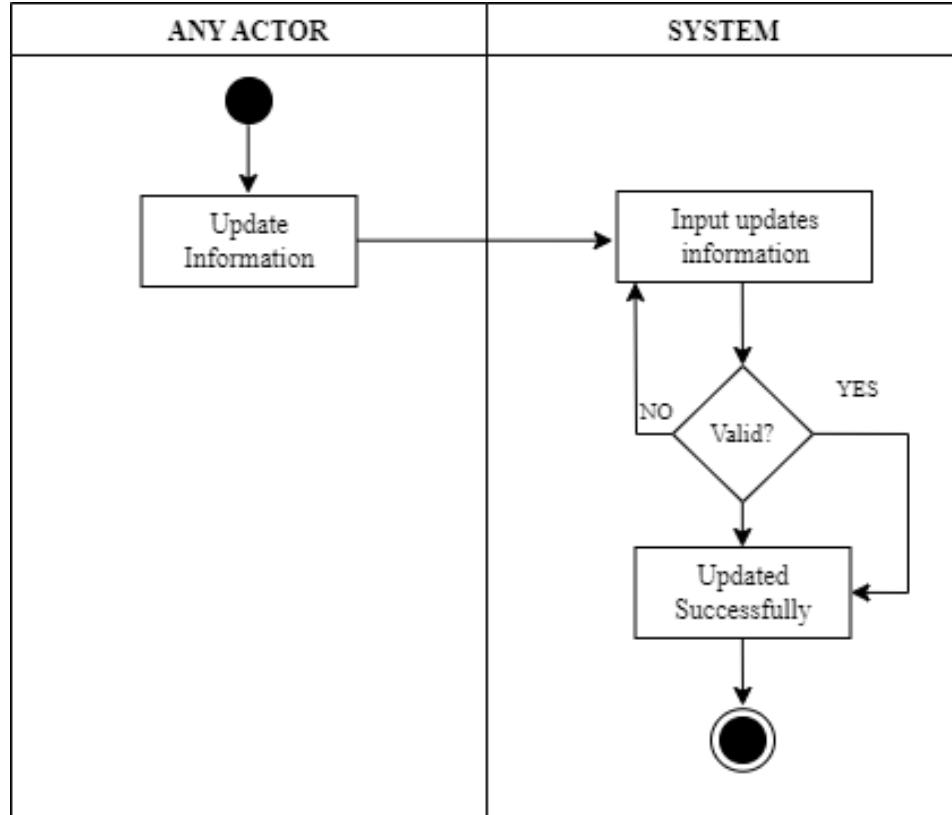


Figure 40: **System Use Case Model - Manage Account Information**

PROCESS NAME: MANAGE APPOINTMENT

PURPOSE: The diagram below is the illustration of appointment booking for pets, the customers and donors to understand on how to claim and its benefits.

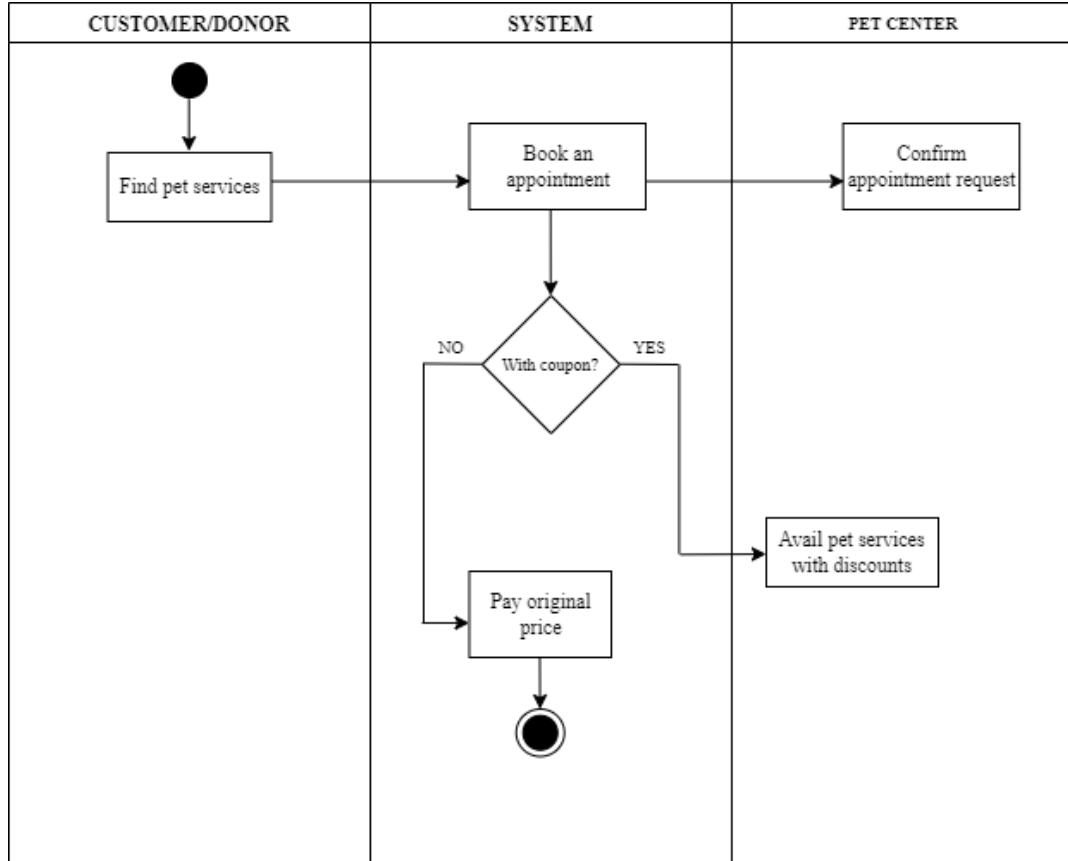


Figure 41: **System Use Case Model - Manage Appointment**

PROCESS NAME: MANAGE PET INFORMATION

PURPOSE: The diagram below is the illustration of manage pet information for the customers, pet center, and admin to understand the managing pet information.

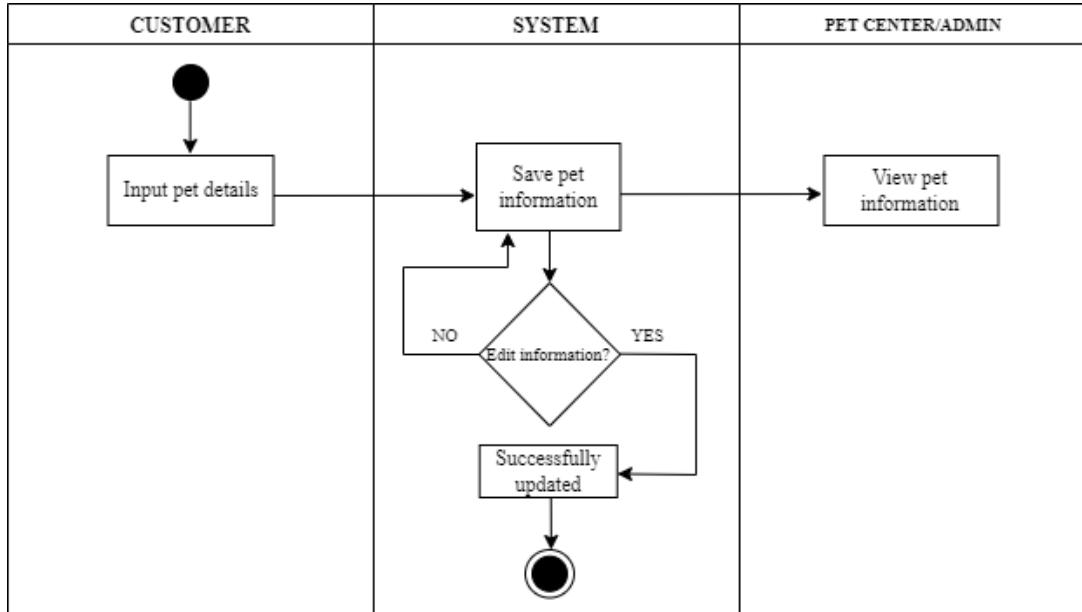


Figure 42: **System Use Case Model - Manage Pet Information**

PROCESS NAME: PROCESS DONATION

PURPOSE: The diagram below is the illustration of process donation for the customers to understand on how to process donation.

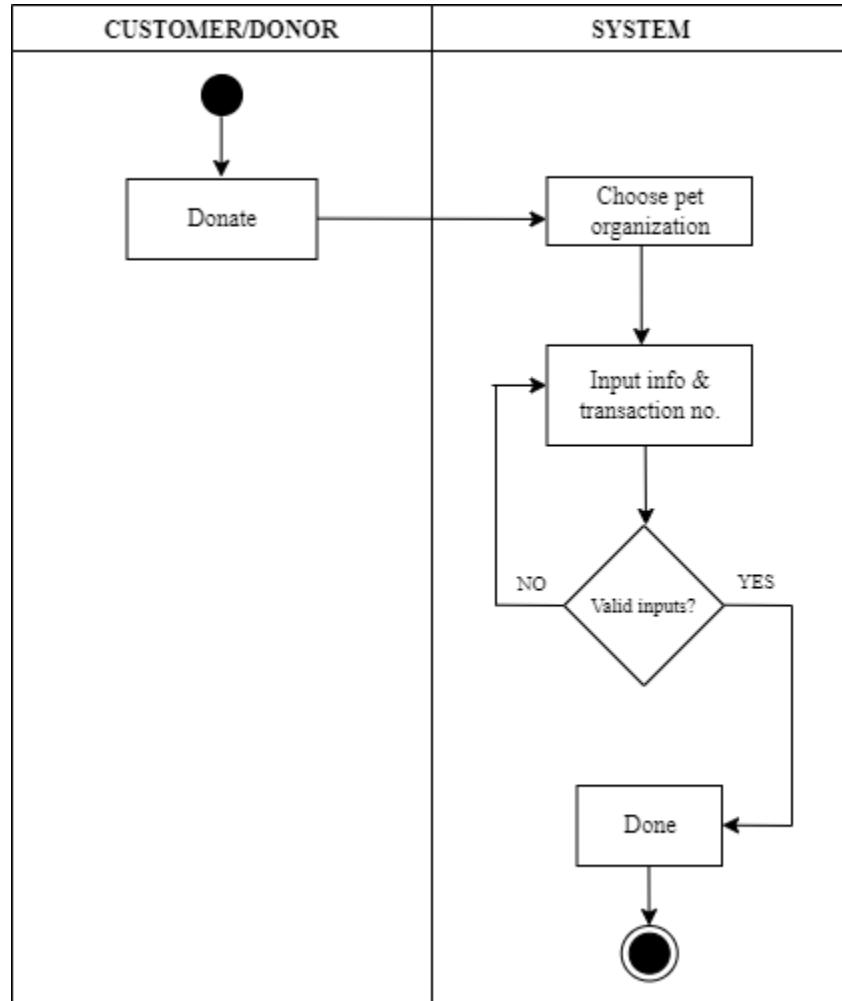


Figure 43: System Use Case Model - Process Donation

PROCESS NAME: MANAGE COUPON

PURPOSE: The diagram below is the illustration of manage coupon for the customers and donors to understand on how to apply for coupon.

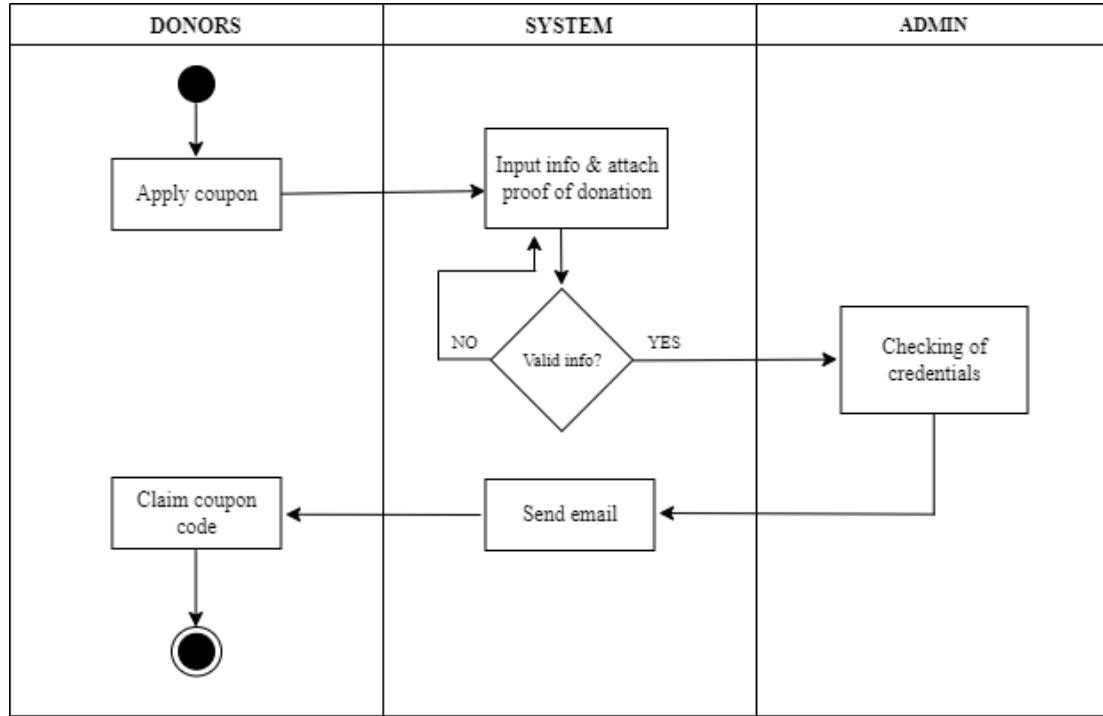


Figure 44: **System Use Case Model - Manage Coupon**

PROCESS NAME: MANAGE FEEDBACK

PURPOSE: The diagram below is the illustration of manage feedback for the customers and pet center to understand the process of making a feedback and viewing of feedback.

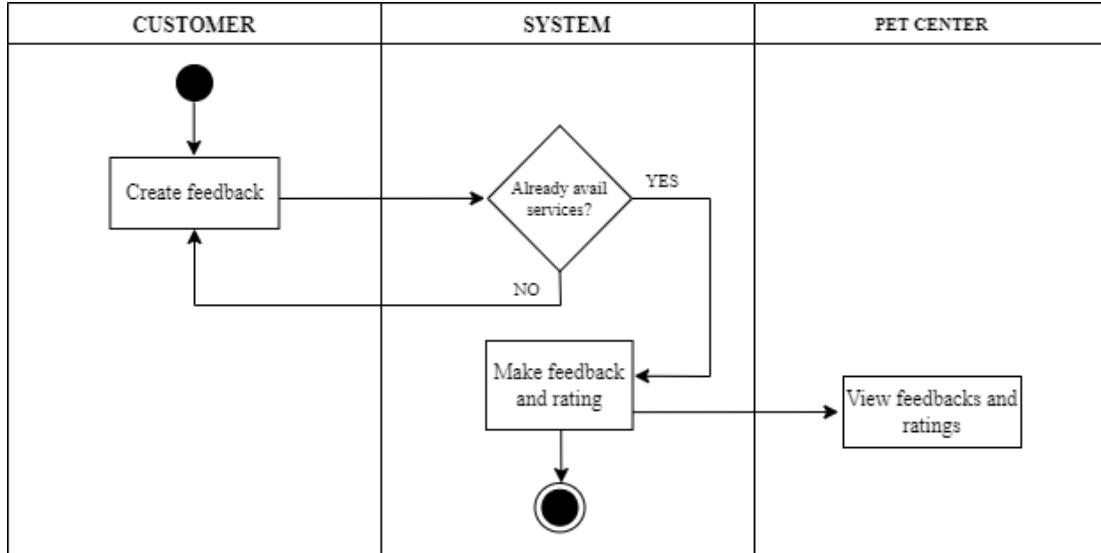


Figure 45: **System Use Case Model - Manage Feedback**

PROCESS NAME: MANAGE SERVICES

PURPOSE: The diagram below is the illustration of manage services for the pet center to understand the process of managing services.

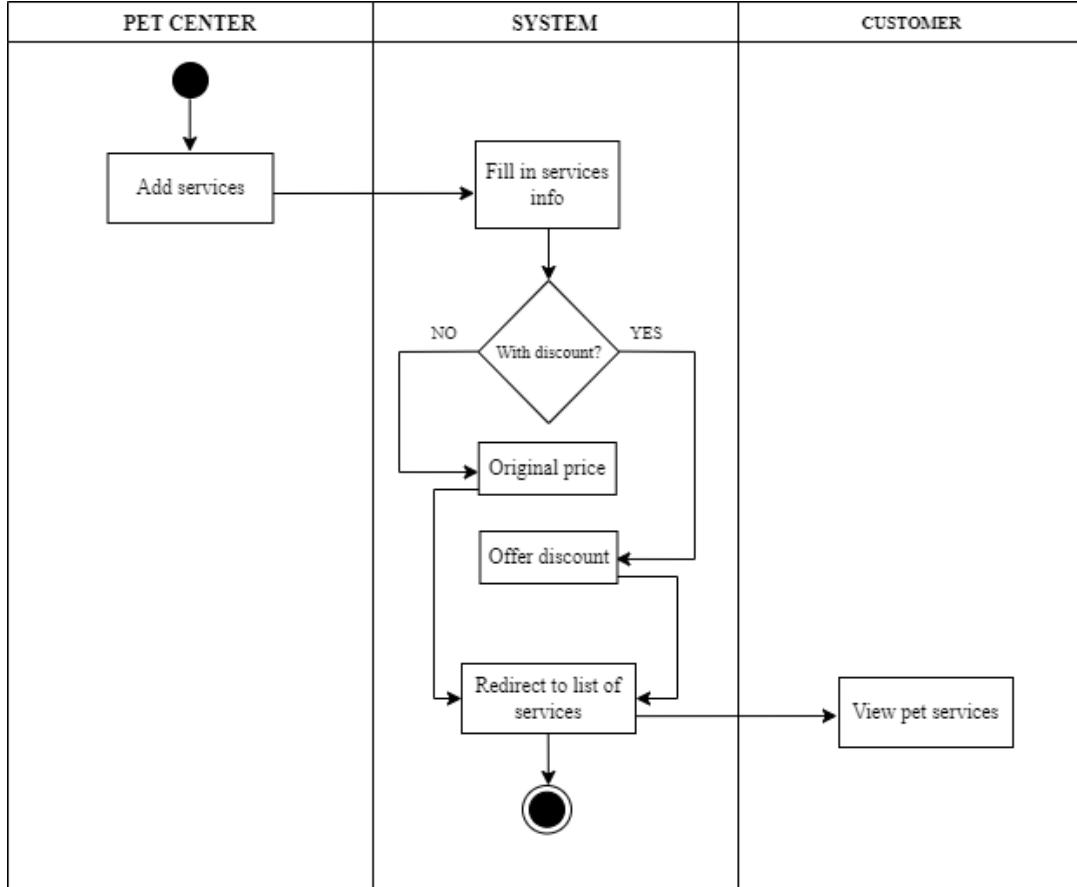


Figure 46: **System Use Case Model - Manage Services**

PROCESS NAME: MANAGE PRODUCTS

PURPOSE: The diagram below is the illustration of manage products for the customers to understand on managing products.

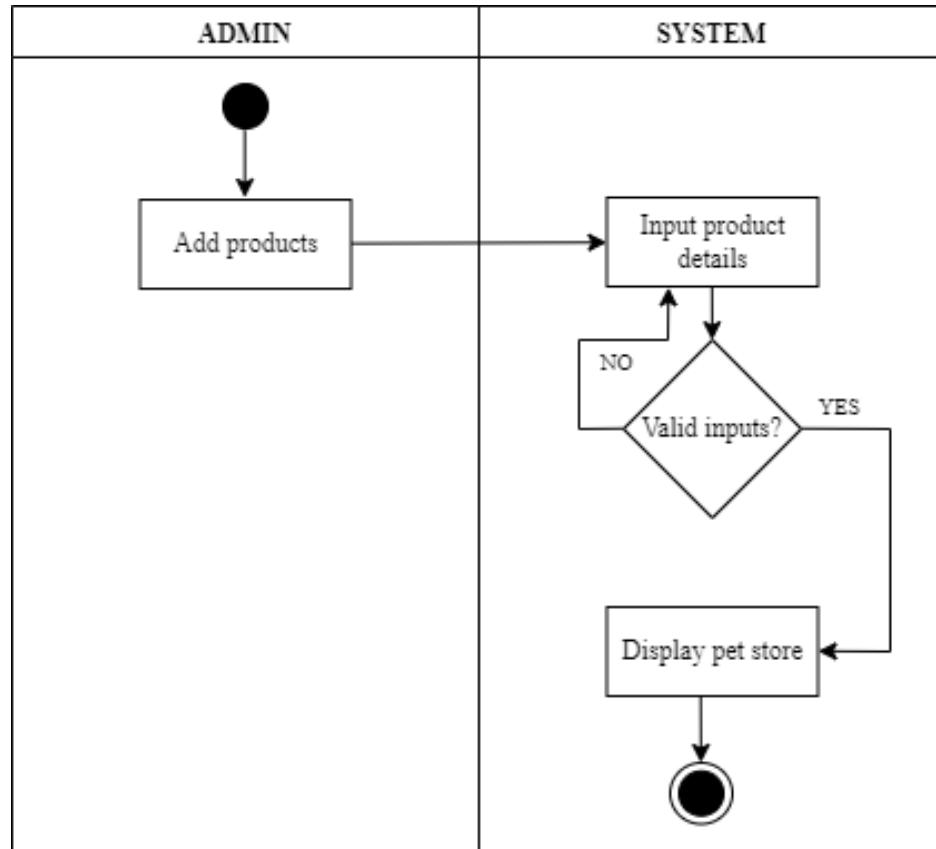


Figure 47: **System Use Case Model - Manage Products**

PROCESS NAME: MANAGE USERS

PURPOSE: The diagram below is the illustration of user management for the users to understand on managing users account.

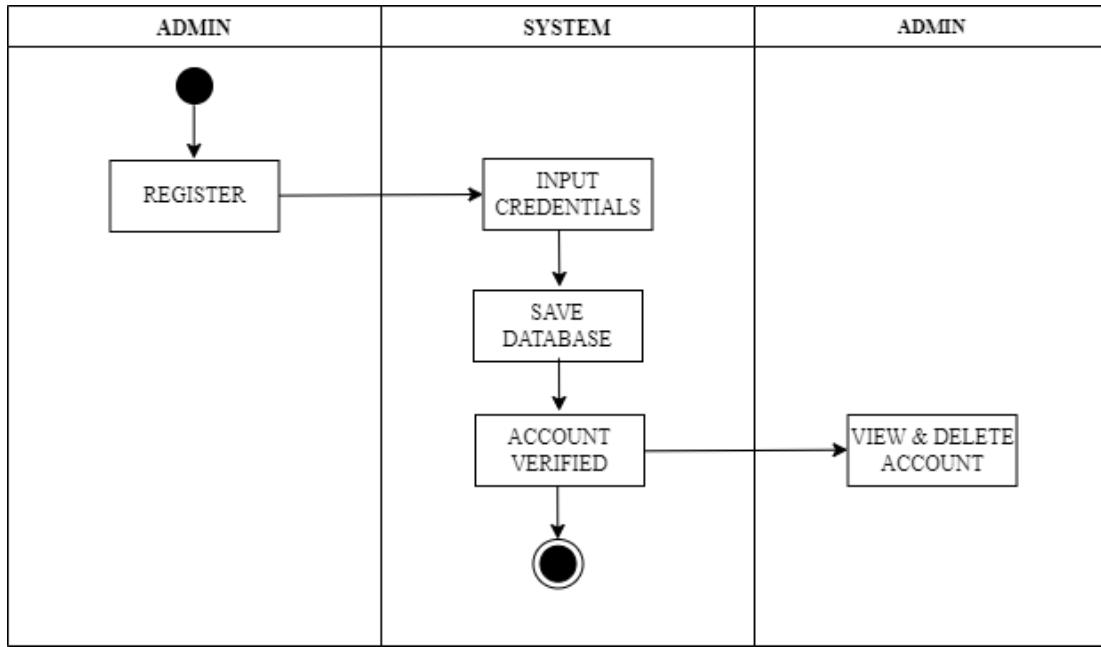


Figure 48: **System Use Case Model - Manage Users**

PROCESS NAME: GENEERATE REPORT

PURPOSE: The diagram below is the illustration of generating report for the pet center and admin to understand the process on downloading and printing of report.

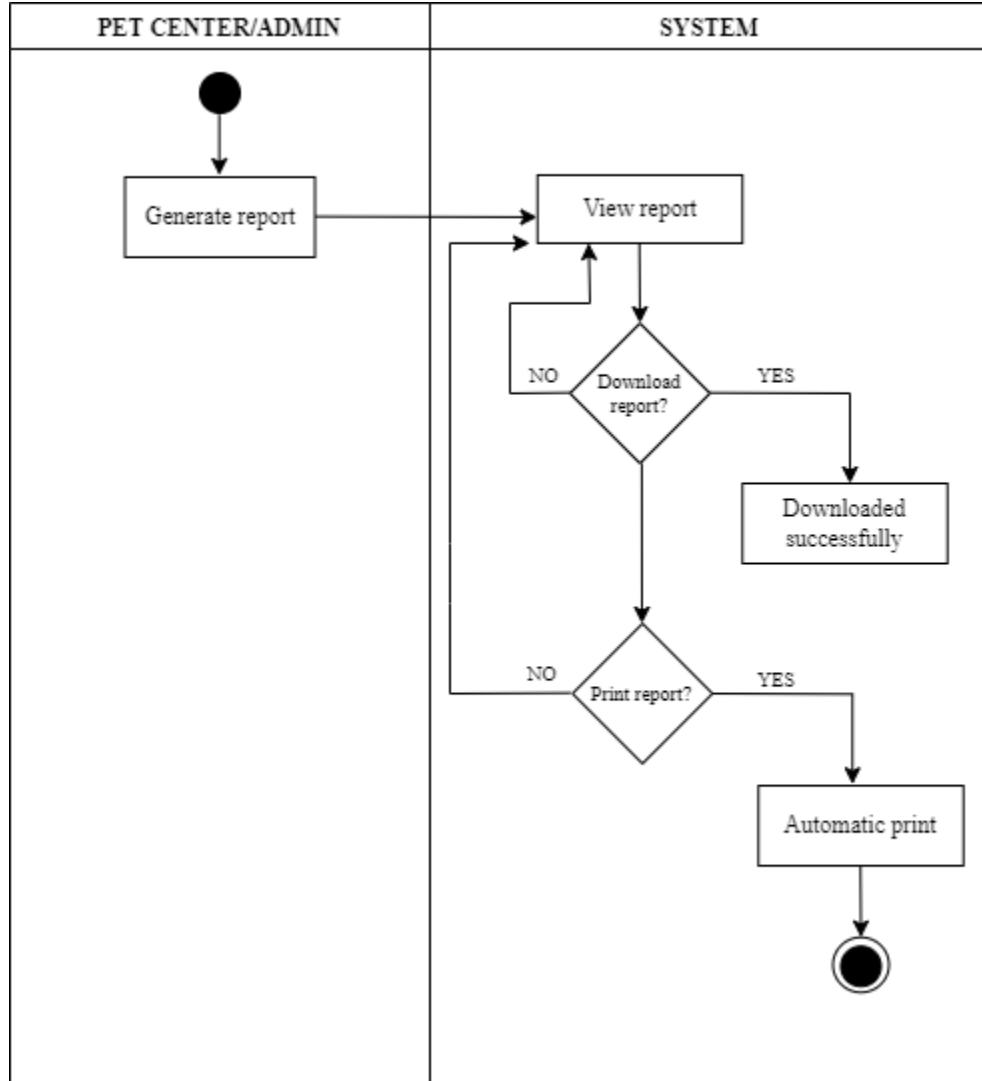


Figure 49: **System Use Case Model - Generate Report**

PROCESS NAME: MANAGE DONATIONS

PURPOSE: The diagram below is the illustration of managing donations for the admin to understand the process on managing donations.

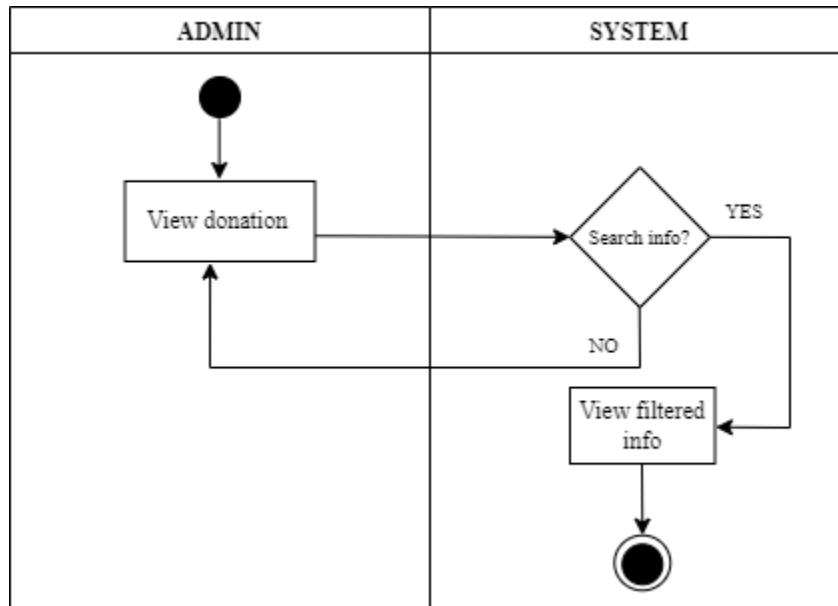


Figure 50: **System Use Case Model - Manage Donations**

PROCESS NAME: VIEW INVOICE

PURPOSE: The diagram below is the illustration of view invoice for customer to understand the process of viewing and printing of invoice.

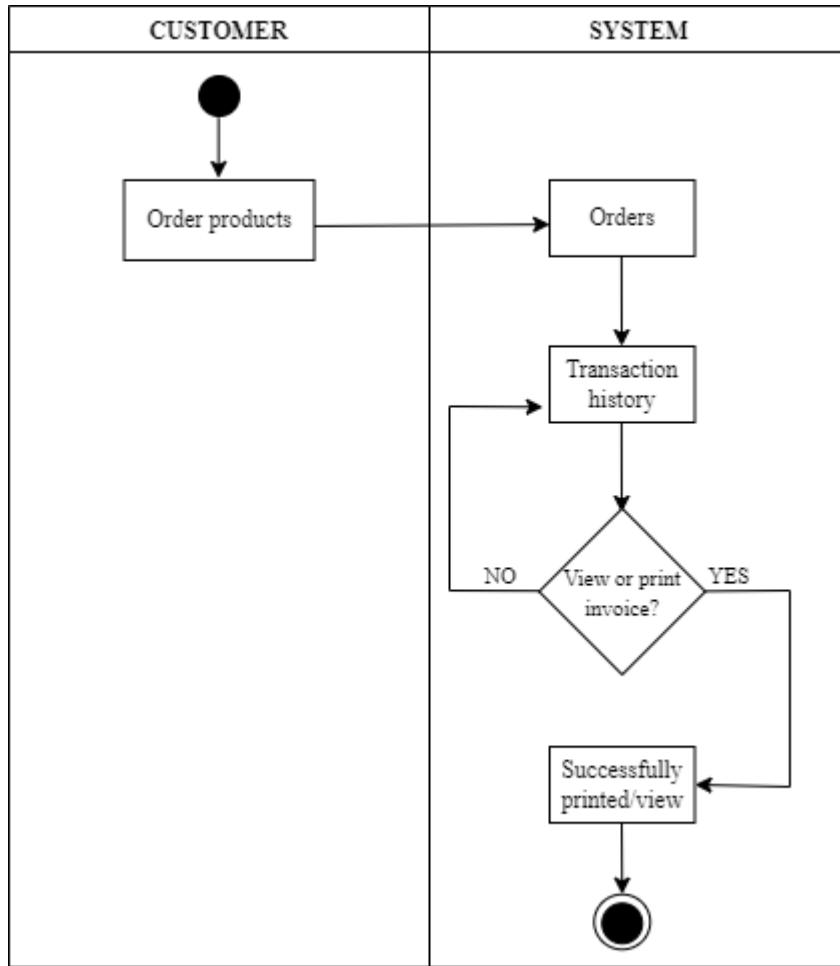


Figure 51: **System Use Case Model - View Invoice**

High Level Design

It is a picture or image-based visual organizer that aids the system's actual user interface design pre-visualization.

MODULE NAME: Landing Page/Pet Store

SCREEN NO. 1

SCREEN NAME: Pet Store

DESCRIPTION: The Pet store is the page where you will find products for your pets. You can order and browse for products that you might

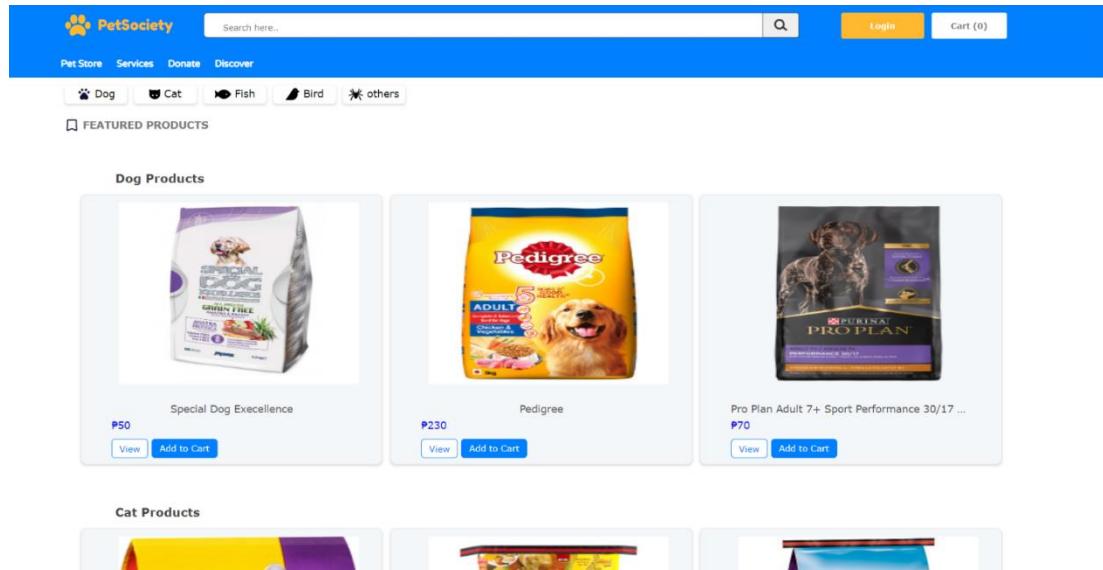


Figure 52: Pet Store

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
search	Textbox	No	Varchar	50
view button	Button	No	N/A	N/A
add to cart	Button	No	N/A	N/A
login	Button	No	N/A	N/A
cart	Button	No	N/A	N/A
LOGIC:				
1. The pet store is the first page the user will see, whether logged in or not.				
2. The user can use the search bar				

- | |
|---|
| 3. Sort products by their categories. |
| 4. The user will also be able to log in. Log in button is located at the upper right corner of the browser. |
| 5. The user can also navigate to other pages such as the Services, Donate and Discover. |

MODULE NAME: Pet Store

SCREEN NO. 2

SCREEN NAME: Product Details

DESCRIPTION: When the user click the view button from the landing page/main page, the product detail page will open.

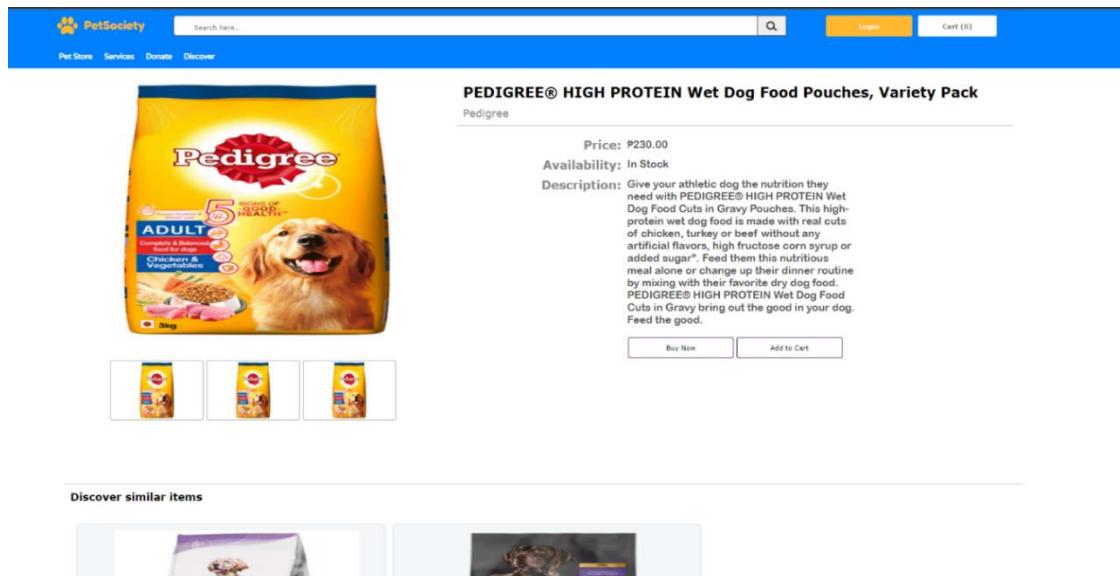


Figure 53: Product Details

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
buy no	Button	N/A	N/A	N/A
add to cart	Button	N/A	N/A	N/A

LOGIC:

- After the user click the view button from the main page, the user will read the details of the selected product
 - if the user want the product he/she can But it now or just add to cart for future purchases
 - if the current user is not logged in, the login page will appear before he/she can complete any of the transaction.

MODULE NAME: Login

SCREEN NO. 3

SCREEN NAME: User Login

DESCRIPTION: This is the login page for the client/user, the client must login to enable all the functionalities the system offered.

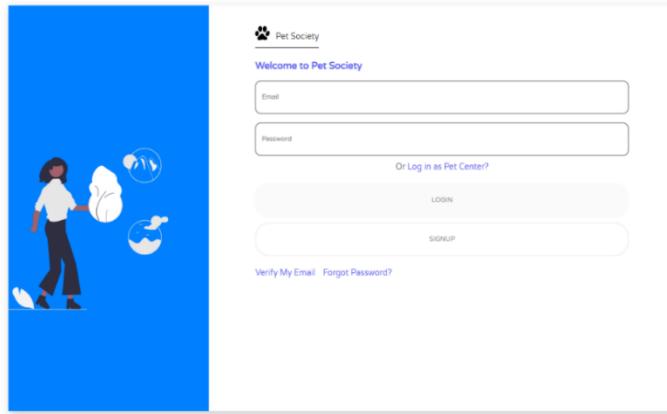


Figure 54: User Login

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
email	textbox	yes	varchar	50
password	textbox	yes	varchar	50
login	button	no	N/A	N/A
signup	button	no	N/A	N/A
login as pet center	link	N/A	N/A	N/A
verify email	link	N/A	N/A	N/A
forgot password	link	N/A	N/A	N/A
LOGIC:				
1. Fill up the login form <ol style="list-style-type: none"> if the email or password text field is empty, the login button will remain disabled. if the user input is correct and the button for login is clicked, the user will be redirected to the pet store or index.php if the password is incorrect the alert function will pop up. 				
2. If the user click the “Login as Pet center” link, the system will redirect the user to the Login page for the pet center.				

- | |
|---|
| 3. If the user click the Sign up button, the system will redirect the user to the signup form/page. |
| 4. The user can also verify email and retrieve their accounts if ever they forgot the password by clicking the respective link as shown in the image. |

MODULE NAME: Signup

SCREEN NO. 4

SCREEN NAME: User Signup

DESCRIPTION: The user will sign up in order to create an account to have access from various functionalities.

Figure 55: User Signup

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
name	textbox	yes	varchar	50
email	textbox	yes	varchar	50
contact no.	textbox	yes	varchar	50
municipalit y	textbox	yes	varchar	50
barangay	textbox	yes	varchar	50
street	textbox	no	varchar	50
password	textbox	yes	varchar	50
confirm password	textbox	yes	varchar	50
signup	button	N/A	N/A	N/A

LOGIC:

1. Fill up the signup form
 - a. If there are any empty fields, the system will prompt a message that the user must fill up for those certain text fields.
 - b. If the inputs are invalid (for example: email) the system will prompt a message to correct the input.
 - c. If all inputs are valid and the user click the signup button, the account is successfully created and the user will be redirected to the login page.

MODULE NAME: Login

SCREEN NO. 5

SCREEN NAME: Petcenter Login

DESCRIPTION: The login page for petcenter is where the petcenters will input their registered credentials to access their accounts.

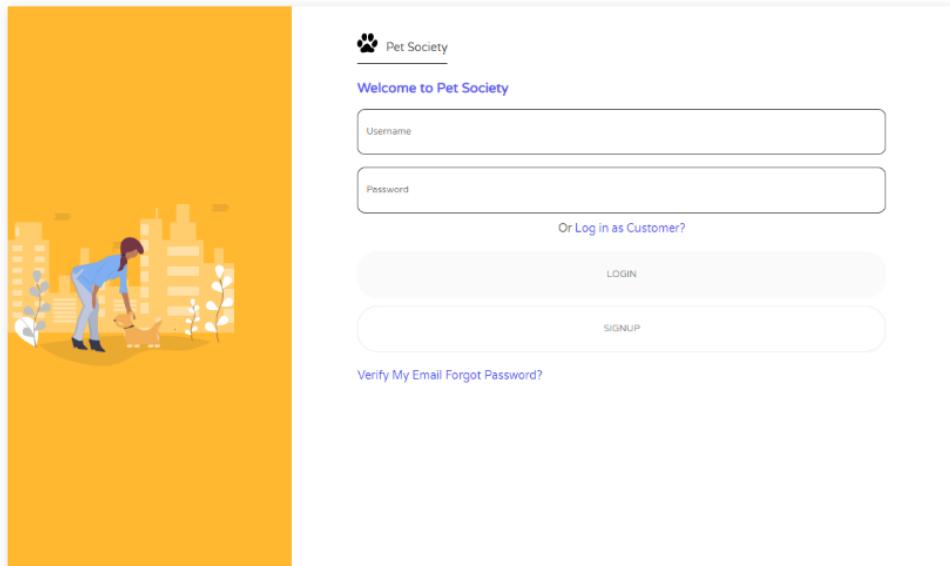


Figure 56: **Petcenter Login**

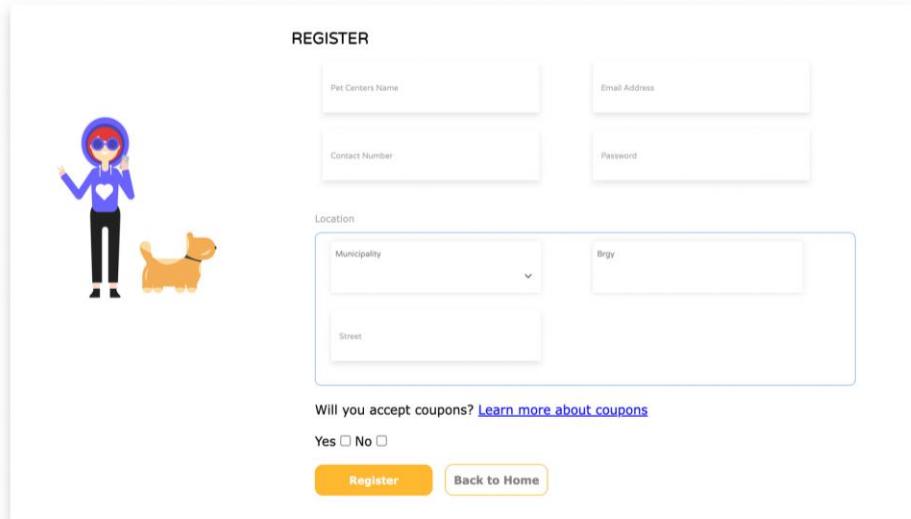
ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
username	textbox	yes	varchar	50
password	textbox	yes	varchar	50
login	button	no	N/A	N/A
LOGIC:				
1. The user will fill up the login form <ol style="list-style-type: none"> If the email or password text field is empty, the login button will remain disabled. If the user input is correct and the button for login is clicked, the user will be redirected to my services page for the petcenter or index.php If the user click the Sign up button, the system will redirect the user to the signup form/page for petcenter. The user can also verify email and retrieve their accounts if ever they forgot the password by clicking the respective links as shown in the image. 				

MODULE NAME: Signup

SCREEN NO. 6

SCREEN NAME: Petcenter Signup

DESCRIPTION: The user petcenter will sign up in order to create an account to have access from various functionalities.



The image shows a 'REGISTER' form for a Petcenter. The form includes fields for Pet Centers Name, Email Address, Contact Number, Password, and Location (Municipality and Barangay). There is also a 'Street' field. A cartoon character of a person in a hoodie and a dog is on the left. At the bottom, there's a question about accepting coupons with 'Learn more about coupons' link, and 'Yes' and 'No' checkboxes. Buttons for 'Register' and 'Back to Home' are at the bottom right.

Figure 57: **Petcenter Signup**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
pet center name	textbox	yes	varchar	50
email	textbox	yes	varchar	50
contact no.	textbox	yes	varchar	50
municipalit y	textbox	yes	varchar	50
barangay	textbox	yes	varchar	50
street	textbox	no	varchar	50
password	textbox	yes	varchar	50
register	button	N/A	N/A	N/A
back to home	button	N/A	N/A	N/A
LOGIC:				
1. Fill up the registration form <ol style="list-style-type: none"> It is required to fill up all the fields except for input text for street, if there are any empty fields after clicking the register button a prompt with message reminding to enter values will appear. If the inputted credentials are invalid, the registration won't be successful and the system will tell you what's wrong. If all of the text fields are having values that are valid coming from the unregistered pet center, after clicking the register button the user will be redirected to the login page to input its credentials. If the users/pet center choose to click the back home button, it will navigate them to the pet store page. 				

MODULE NAME: Login

SCREEN NO. 7

SCREEN NAME: Admin Login

DESCRIPTION: The Admin of the system will enter his/her credential to access the admin account.

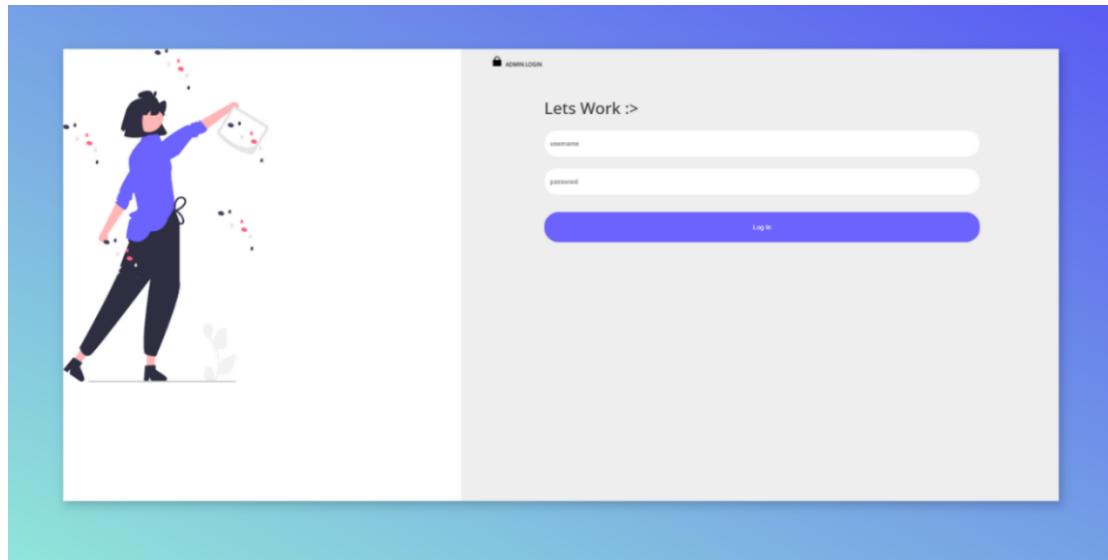


Figure 58: **Admin Login**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
username	textbox	yes	varchar	50
password	textbox	yes	varchar	50
login	button	no	N/A	N/A
LOGIC:				
1. The admin will input information in the text fields. a. If the input is incorrect or invalid the admin who is trying to access cannot go through b. If the inputs are correct, then the admin can access its account.				

MODULE NAME: Profile

SCREEN NO. 8

SCREEN NAME: User Profile

DESCRIPTION: The user can view, edit, and update its personal information

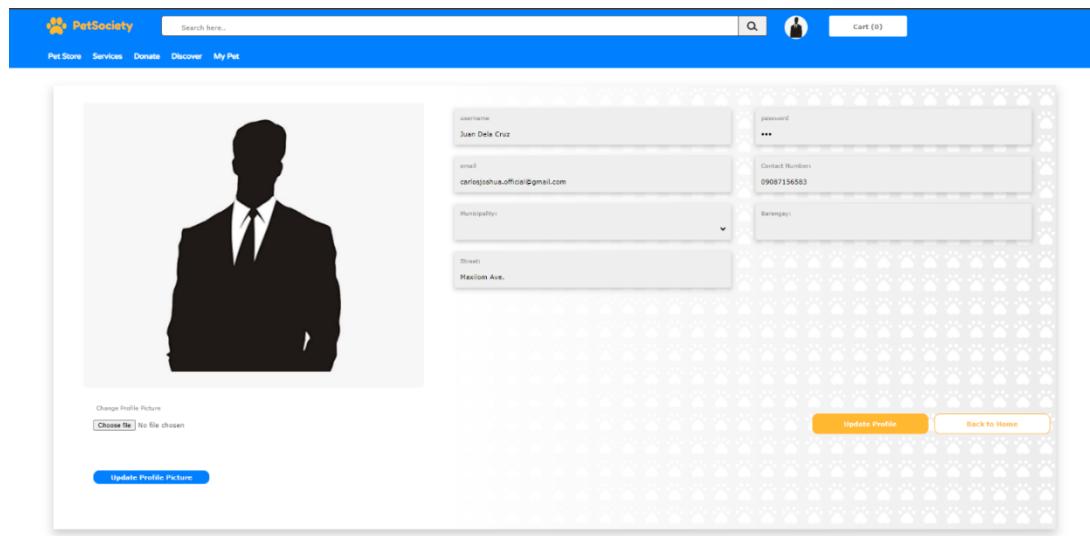


Figure 59: User Profile

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
username	textbox	no	varchar	50
password	textbox	no	varchar	50
email	textbox	no	varchar	50
contact no	textbox	no	varchar	50
municipalit y	select	no	varchar	50
barangay	select	no	varchar	50
street	textbox	no	varchar	50
change profile	textbox	no	varchar	50
update profile pic	button	N/A	N/A	N/A
update profile	button	N/A	N/A	N/A
back to home	button	N/A	N/A	N/A
LOGIC:				

1. The users will update or check their profile
 - a. If the input is all correct, the profile of the user is successfully saved.
 - b. If the user doesn't want to update, they can click the back to home button so that they can navigate back to the pet store.

MODULE NAME: Cart

SCREEN NO. 9

SCREEN NAME: User's Cart

DESCRIPTION: In this page, the user can see the items that they added into cart. The users can cancel the items or place it in order.

Image	Product Name	Quantity	Price	Sub Total	Remove
	Pedigree	2	₱230	₱460	
	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food	2	₱70	₱140	
	Friskies 7 Dry Cat Food, 16 lb. Bag	1	₱35	₱35	
	Kaytee Koi Choice Koi Floating Fish Food 10 LB Bag	1	₱450	₱450	

Total Amount: ₱1085 **Place Order**

Figure 60: User's cart

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
username	textbox	yes	varchar	50
password	textbox	yes	varchar	50
login	textbox	no	N/A	N/A
LOGIC:				
1. After opening the cart page, the user can manipulate the details of the items they want to order.				
a. If the users want to add the quantity of the items in the cart, they'll just update the quantity by typing the desired quantity. The updated subtotal and total will immediately show after clicking the update button with pencil symbol.				

- b. If the customers don't want the items, they can just click the delete button.
- c. If the customer click the place order, the system will navigate the user to the confirmation of personal details for the delivery in the checkout page.

MODULE NAME: Place Order

SCREEN NO. 10

SCREEN NAME: Place Order

DESCRIPTION: The place order page will ask the exact details or information of the customer for seamless delivery.

Figure 61: Place Order

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
contact no	textbox	no	varchar	50
email address	textbox	no	varchar	50
street	textbox	no	varchar	50
barangay	textbox	no	varchar	50
municipality	textbox	no	varchar	50
product name	textbox	no	varchar	50
quantity	textbox	no	varchar	50

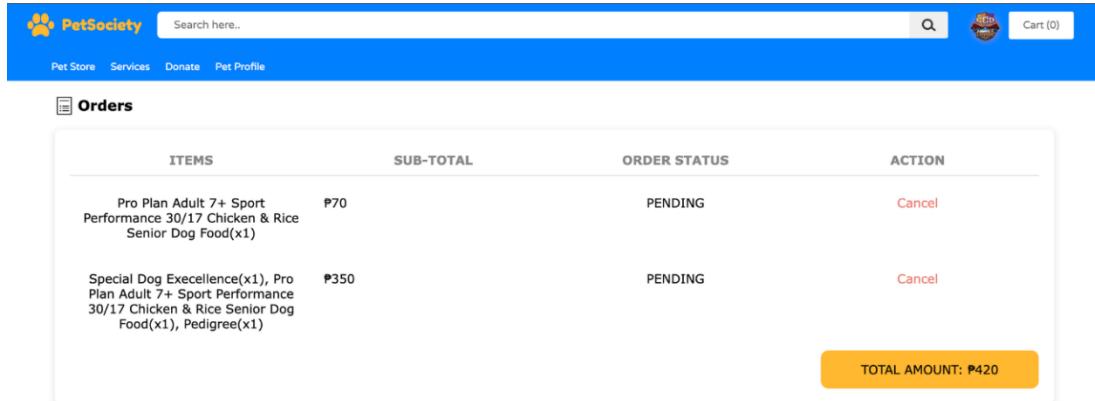
delivery fee	textbox	no	varchar	50
total amount	textbox	N/A	N/A	N/A
confirm order	button	N/A	N/A	N/A
edit info	button	N/A	N/A	N/A
LOGIC:				
1. The user can edit the personal info or confirm the order. a. If the user edit his/her personal info, the system will navigate them to the profile page. b. If the user wants to confirm order, the order is successfully placed and the user check it in my order page.				

MODULE NAME: Place Order

SCREEN NO. 11

SCREEN NAME: My Orders

DESCRIPTION: The users can check the status, view or cancel to the orders they've made



The screenshot shows the 'Orders' section of the PetSociety website. At the top, there is a navigation bar with the PetSociety logo, a search bar, and a cart icon indicating 0 items. Below the navigation, there is a breadcrumb menu with links to 'Pet Store', 'Services', 'Donate', and 'Pet Profile'. The main content area is titled 'Orders' and displays a table of pending orders.

ITEMS	SUB-TOTAL	ORDER STATUS	ACTION
Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	₹70	PENDING	Cancel
Special Dog Excellence(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	₹350	PENDING	Cancel

A yellow button at the bottom right of the table area says 'TOTAL AMOUNT: ₹420'.

Figure 62: **My Orders**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
cancel	button	N/A	N/A	N/A
LOGIC:				
1. The user view order. <ol style="list-style-type: none"> If the users want to cancel order, click the cancel button and the ordered items will be discarded. If the users want to continue the order, no need to add further actions. Just wait for the order status to be confirmed. If the order status is confirmed, the user can no longer cancel the order. 				

MODULE NAME: Order History

SCREEN NO. 12

SCREEN NAME: Transaction History

DESCRIPTION: The users can view their transaction history

Order Id	Items	Date Delivered
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	2022-04-29
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	2022-04-29
1	Special Dog Execellence(x1), Pedigree(x1)	2022-04-29
1	Special Dog Execellence(x1), Pedigree(x1)	2022-04-29
1	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	2022-05-02

Figure 63: Transaction History

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
show transaction history	button	N/A	N/A	N/A
LOGIC:				
1. If the users click the transaction history, the users can see their transaction history				

MODULE NAME: Reservation/Services

SCREEN NO. 13

SCREEN NAME: Services Page

DESCRIPTION: The users can access and view various pet services from our legit pet centers.

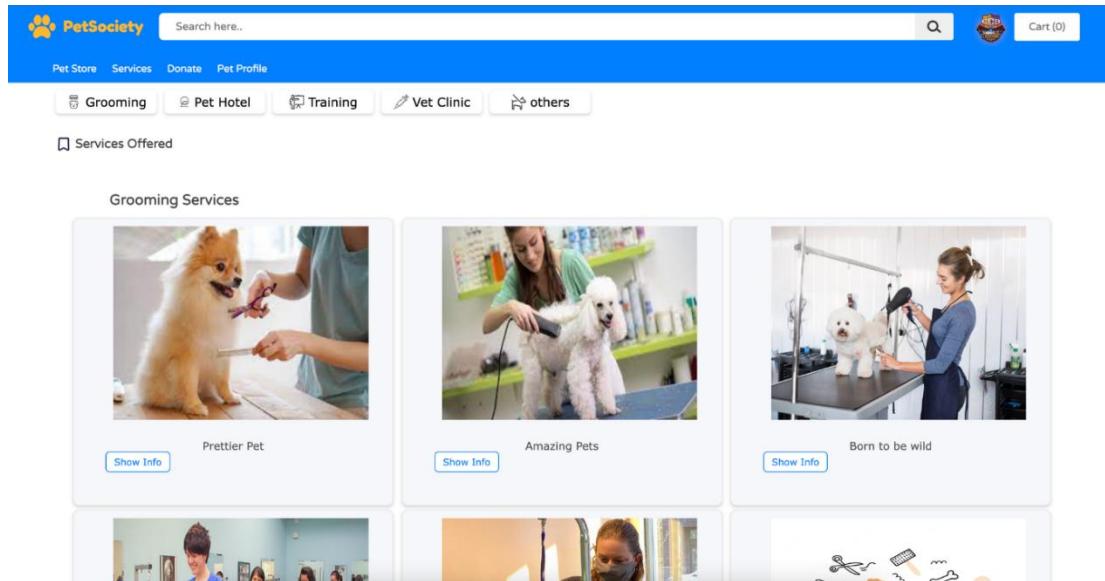


Figure 64: Service Page

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
show info	button	N/A	N/A	N/A
grooming	button	N/A	N/A	N/A
pet hotel	button	N/A	N/A	N/A
training	button	N/A	N/A	N/A
vet clinic	button	N/A	N/A	N/A
others	button	N/A	N/A	N/A
LOGIC:				
1. If the user want or interested in certain service, he/she can click show info to discover or learn more about the service offered.				
2. If the user want to navigate to other utilities of the website, just click the buttons located in the header.				

MODULE NAME: Reservation/Services

SCREEN NO. 14, 15

SCREEN NAME: Show Service Info

DESCRIPTION: The user view the details of the service.

The screenshot shows a web browser displaying the PetSociety website. The main content area features a large image of a white poodle being groomed. To the right of the image, there is a section titled "Amazing Pets" with the following information:

- Service Category:** Pet Training
- Contact Number:** 092266662123
- Email Address:** ianjohn0101@gmail.com
- Time Open:** 8:00 AM
- Time Close:** 4:00 PM
- Service Cost:** 75
- Discount Offer:** [empty]

Below this information is a button labeled "Reserve(without coupon)". At the bottom of the page, there is a map showing the location of Amazing Pets at 1945 76 Country Blvd, Branson, MO 65616, United States. The map includes labels for Dr. Goss Rd, Main St, Rose Dell Ln, and Rehards Ave.

Figure 65: Show Service Info

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
reserve	button	N/A	N/A	N/A
write a comment	button	N/A	N/A	N/A
Submit	button	N/A	N/A	N/A
LOGIC:				
1. If the user want to reserve for a service of the pet center, he will click the reserve button				
2. If the user want to give a comment, he will scroll down and type something in the reviews area of the page.				

MODULE NAME: Donation

SCREEN NO. 16

SCREEN NAME: Donation

DESCRIPTION: The user can see the list of organization the admin has added. They can also read about what pet society do

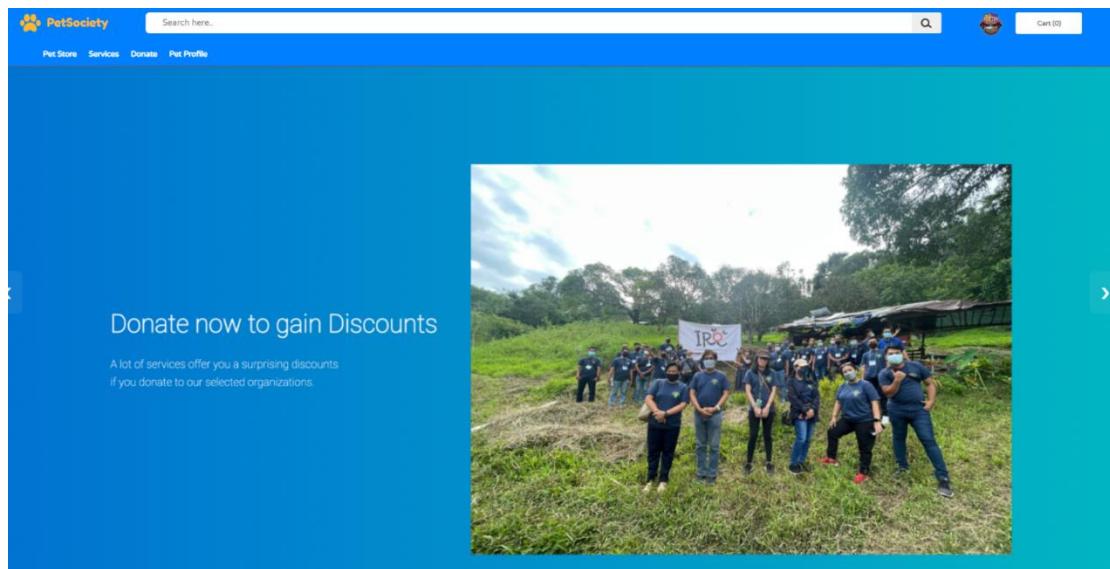


Figure 66: [Donation](#)

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
show info	button	N/A	N/A	N/A
LOGIC:				
1. If the user click the show info button, the system will navigate the customer to the organization details.				

MODULE NAME: Donation

SCREEN NO. 17

SCREEN NAME: Organization Detail

DESCRIPTION: The user can view the organization's detail, like bank details and the organization manager. In this page, the user can also apply for the coupon code.

PetSociety Search here..

ISLAND RESCUE ORGANIZATION, INC.
RESCUE • EDUCATE • ADVOCATE

IRO
IRO cares for over 100 companion animals who are awaiting adoption into forever homes. IRO also cares for a number of animals who are receiving treatment for medical injuries or illnesses or are being rehabilitated for behavioural issues relating to their backgrounds. IRO is run entirely by a team of volunteers and as a community-focused organization; IRO not only relies on the support of the public (both local and international) for funding but also to assist with the organization's operations. IRO is affiliated with Friends for the Protection of Animals (USA), a US-501 c (3) non-profit animal rescue organization.

	Location: looc	Website: <input type="text"/>
	GCash Number: 123123123	Paymaya: <input type="text"/>
	Email Address: judame@gmail.com	Organization Manager: <input type="text"/>
	Bank Details: <input type="text"/>	Facebook: <input type="text"/>

Figure 67: Organization Detail

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
apply for coupon	button	N/A	N/A	N/A
LOGIC:				
1. If the user is done donating, he can apply for a coupon by clicking the apply coupon button and the system will navigate him to the other page.				

MODULE NAME: Donation

SCREEN NO. 18

SCREEN NAME: Donate

DESCRIPTION: In this page, the user will fill up the form and upload it so that the admin can review it.

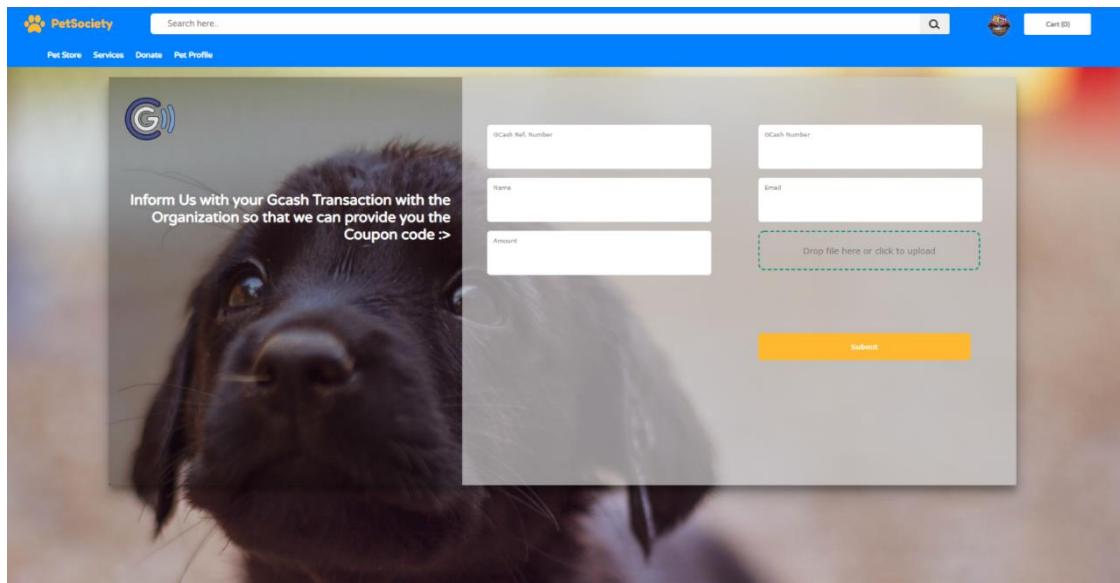


Figure 68: [Donate](#)

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
gcash ref no.	textbox	yes	varchar	50
gcash no.	textbox	yes	varchar	50
name	textbox	yes	varchar	50
email	textbox	yes	varchar	50
amount	textbox	yes	double	50
file uploader	file	yes	varchar	200
submit	button	N/A	N/A	N/A
LOGIC:				
1. The user will fill up the given form, then the user will click the submit button. a. If the inputs are lacking, the inputs fields will tell the user that it is required. b. If the inputs are correct it is submitted successfully.				

MODULE NAME: Manage Services

SCREEN NO. 19

SCREEN NAME: Add Service

DESCRIPTION: In this page, the pet center will add services. The pet center will fill up the form and save it.

The screenshot shows a web-based application interface for adding a service. At the top, there's a navigation bar with a logo, the text "Pet Society", and three buttons: "My services", "Add services" (which is highlighted in blue), and "Requests(17)". On the right side of the header is a user profile icon labeled "judamez". The main content area contains several input fields arranged in a grid:

- Name:** Text input field.
- Service Day From:** Select dropdown menu showing "monday".
- Service Day To:** Select dropdown menu showing "monday".
- Service Cost:** Text input field.
- Service Discount:** Text input field.
- Time Open:** Input field with placeholder "---:--- ---".
- Photo:** A file upload input field with a dashed green border and placeholder text "Drop file here or click to upload".
- Time Close:** Input field with placeholder "---:--- ---".
- Select Category:** Select dropdown menu showing "Pet Grooming".
- Description:** Text input field.
- Municipality:** Select dropdown menu.
- Barangay :** Text input field.
- Street:** Text input field.
- Accept Coupon:** Radio button group with options "Yes" and "No".

Figure 69: Add service

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
name	textbox	yes	varchar	50
service day from	select	yes	varchar	50
service day to	select	yes	varchar	50
service cost	textbox	yes	varchar	50
service discount	textbox	yes	int	50
time open	Input time	yes	varchar	200
time close	Input time	yes	varchar	N/A
photo	Input file	yes	varchar	50
category	select	yes	varchar	50
description	textbox	yes	varchar	50

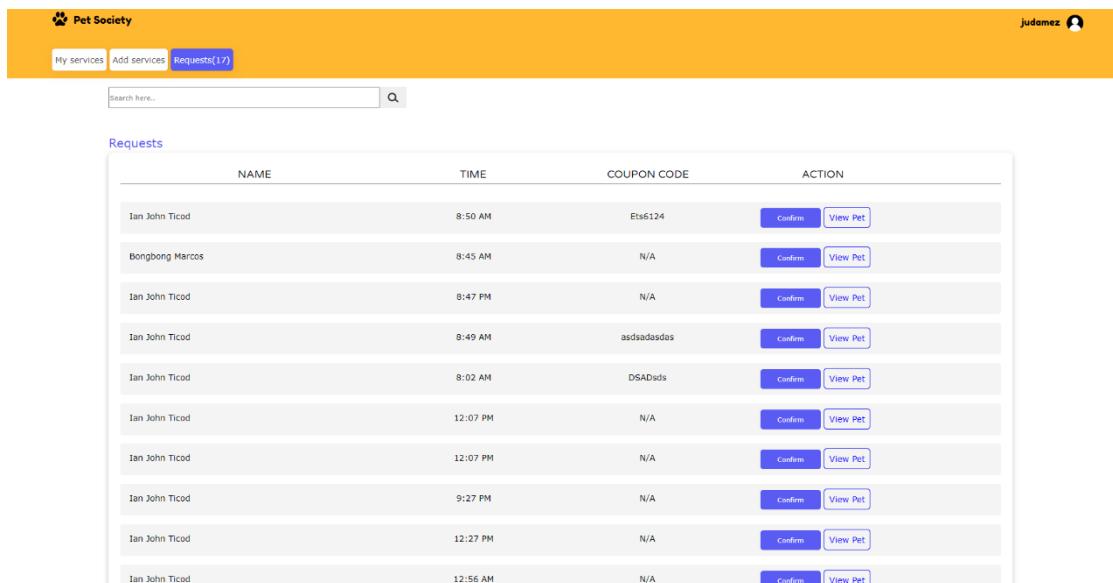
municipality	select	yes	varchar	50
barangay	select	yes	varchar	50
street	textbox	yes	varchar	50
accept coupon	Radio button	yes	varchar	50
add services	button	N/A	N/A	N/A
LOGIC:				
1. The pet center will fill up the form, if the inputs are complete the pet center click the add service button. a. The system will upload the service and post it in the services, found in the user side.				

MODULE NAME: Appointment Reservation

SCREEN NO. 20

SCREEN NAME: Confirm Reservation

DESCRIPTION: Here, the pet center can confirm the request for reservation.



The screenshot shows a web-based application for a pet society. At the top, there is a yellow header bar with the logo 'Pet Society'. On the right side of the header, there is a user profile icon labeled 'judamez'. Below the header, there is a navigation menu with three items: 'My services', 'Add services', and 'Requests(17)'. The 'Requests(17)' item is highlighted with a blue background. Below the menu, there is a search bar with the placeholder 'Search here...' and a magnifying glass icon. The main content area is titled 'Requests' and contains a table with the following columns: NAME, TIME, COUPON CODE, and ACTION. The table lists ten rows of data, each representing a reservation request. Each row includes a 'Confirm' button and a 'View Pet' button. The data in the table is as follows:

NAME	TIME	COUPON CODE	ACTION
Ian John Ticod	8:50 AM	Ets6124	[Confirm] [View Pet]
Bongbong Marcos	8:45 AM	N/A	[Confirm] [View Pet]
Ian John Ticod	8:47 PM	N/A	[Confirm] [View Pet]
Ian John Ticod	8:49 AM	asdsadasdas	[Confirm] [View Pet]
Ian John Ticod	8:02 AM	DSADsdS	[Confirm] [View Pet]
Ian John Ticod	12:07 PM	N/A	[Confirm] [View Pet]
Ian John Ticod	12:07 PM	N/A	[Confirm] [View Pet]
Ian John Ticod	9:27 PM	N/A	[Confirm] [View Pet]
Ian John Ticod	12:27 PM	N/A	[Confirm] [View Pet]
Ian John Ticod	12:56 AM	N/A	[Confirm] [View Pet]

Figure 70: Confirm Reservation

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
confirm	button	N/A	N/A	N/A
view pet	button	N/A	N/A	N/A
search	textbox	NO	varchar	50
LOGIC:				
1. If the pet center confirm the reservation request, the system will send an email to the user about the confirmation status.				
2. If the user click the view pets, the system will navigate to the pet info section of the user so that the pet center will have an idea about the pet of the customer				

MODULE NAME: Appointment Reservation

SCREEN NO.21

SCREEN NAME: Customer's Pet Details

DESCRIPTION: The pet center can check or view the pet of the customer who wants to reserve for the service

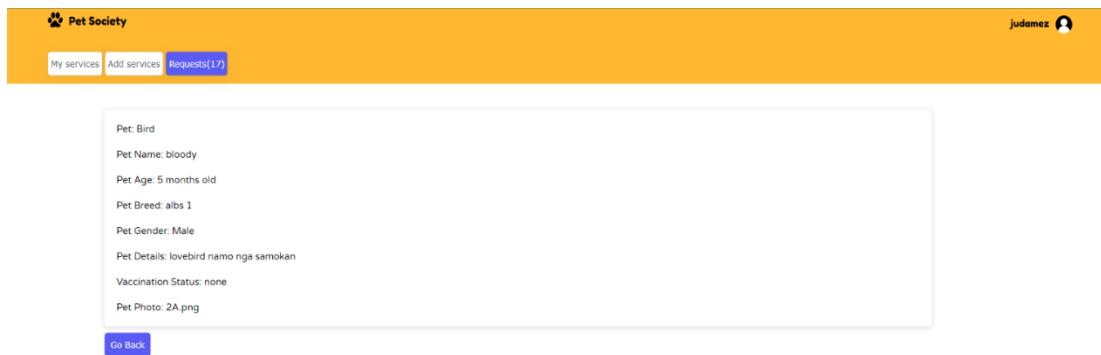


Figure 71: **Customer's Pet Detail**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
go back	button	N/A	N/A	N/A
LOGIC:				
1. After viewing, the user can click the go back button, the system will navigate back to the request table.				

MODULE NAME: Sales Inventory

SCREEN NO. 22

SCREEN NAME: Sales Inventory

DESCRIPTION: The admin can view the sales of the pet store.

Order ID	Items	Customer	Date Delivered	Amount Collected
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₦300
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₦300
1	Special Dog Excellence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₦280
1	Special Dog Excellence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₦280
1	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	Ian John Ticod	2022-05-02	₦300

Amount Collected: ₦1460

Figure 72: **Sales Inventory**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
print	button	N/A	N/A	N/A
export to excel	button	N/A	N/A	N/A
export to pdf	button	N/A	N/A	N/A
LOGIC:				
1. After the admin check the sales, the admin can print or export the sales inventory by click the respective buttons.				

MODULE NAME: Manage Services

SCREEN NO. 23

SCREEN NAME: My Services

DESCRIPTION: The pet center can manage their services and search for transactions.

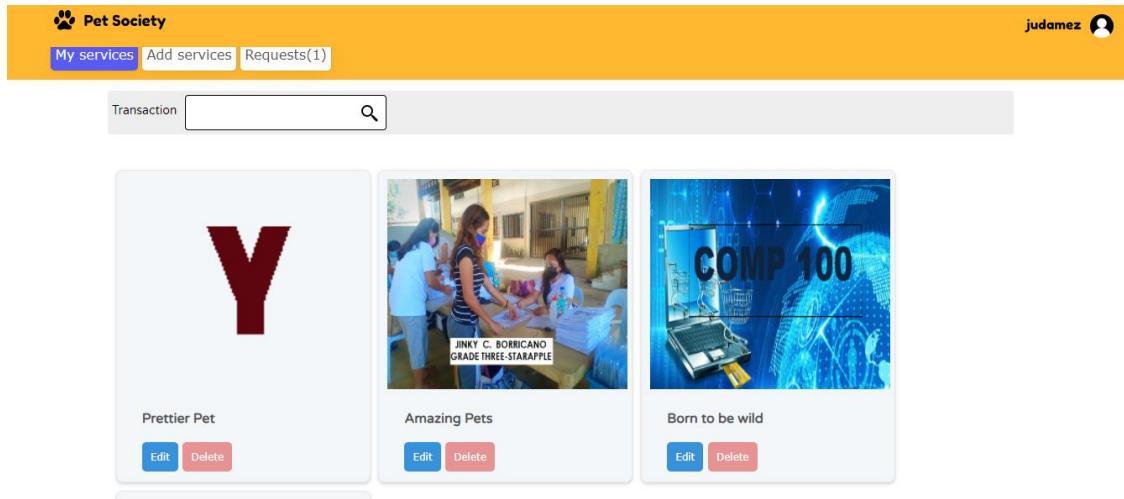


Figure 73: My Services

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
search	textbox	no	varchar	50
edit	button	N/A	N/A	N/A
delete	button	N/A	N/A	N/A
LOGIC:				
1. If the pet center want to edit the services, they'll click the edit button and the system will navigate them to the edit page.				
2. If clicked delete, the system will automatically delete the service				

MODULE NAME: Manage Orders

SCREEN NO. 24

SCREEN NAME: Manage Order

DESCRIPTION: The Admin can manage the orders, set delivery date, confirm or cancel.

Figure 74: Manage Order

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
username	link	N/A	N/A	N/A
delivery date	date	N/A	date	N/A
confirm	button	N/A	N/A	N/A
cancel	button	N/A	N/A	N/A
LOGIC:				
1. The admin click the link in the table				
a.The system will navigate the admin to the page where the personal info of the user will show.				
2. If the confirm button is clicked, the status of the order in the user side will be updated into confirmed.				
3. If cancel is clicked, the admin should input the reason why it is canceled then the system will send it through email.				

MODULE NAME: Manage Products

SCREEN NO. 25

SCREEN NAME: Add Products

DESCRIPTION: In this page, the admin will upload products.

Figure 75: Add Products

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
enter product name	textbox	yes	varchar	50
select category	select	yes	varchar	50
product brand	textbox	yes	varchar	50
image 1	file	yes	varchar	MAX
image 2	file	yes	varchar	MAX
image 3	file	yes	varchar	MAX
price	textbox	yes	double	50
quantity	textbox	yes	int	50
description	textbox	yes	varchar	50
add product	button	N/A	N/A	N/A
LOGIC:				
1. After fill up the form, the user will click the add product button. a. If all inputs are valid, the system will post the product into the pet store user side. b. If inputs are invalid or lacking the system will tell the admin that the txt fields are required.				

MODULE NAME: Manage Partners

SCREEN NO. 26

SCREEN NAME: Partnered Organizations

DESCRIPTION: The admin can manage the partnered organizations

Name	Location	Contact Number	Email Address	Edit	Delete
IDO	Iloc	123123123	judame@gmail.com	<button>Edit</button>	<button>Delete</button>
Ivy Joe Org	Lapu-lapu City	09225672509	ivyjoe@gmail.com	<button>Edit</button>	<button>Delete</button>
wildrift org	opao mandaue city	09876782312	mobilelegends@gmail.com	<button>Edit</button>	<button>Delete</button>

Figure 76: Partnered Organization

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
edit	button	N/A	N/A	N/A
delete	button	N/A	N/A	N/A
LOGIC:				
1. If the edit button is clicked, the system will navigate the user to the edit page 2. If the delete button is clicked, the system will delete the organizations.				

MODULE NAME: Coupon Application

SCREEN NO. 27

SCREEN NAME: Coupon Application

DESCRIPTION: The admin can confirm the application for coupons

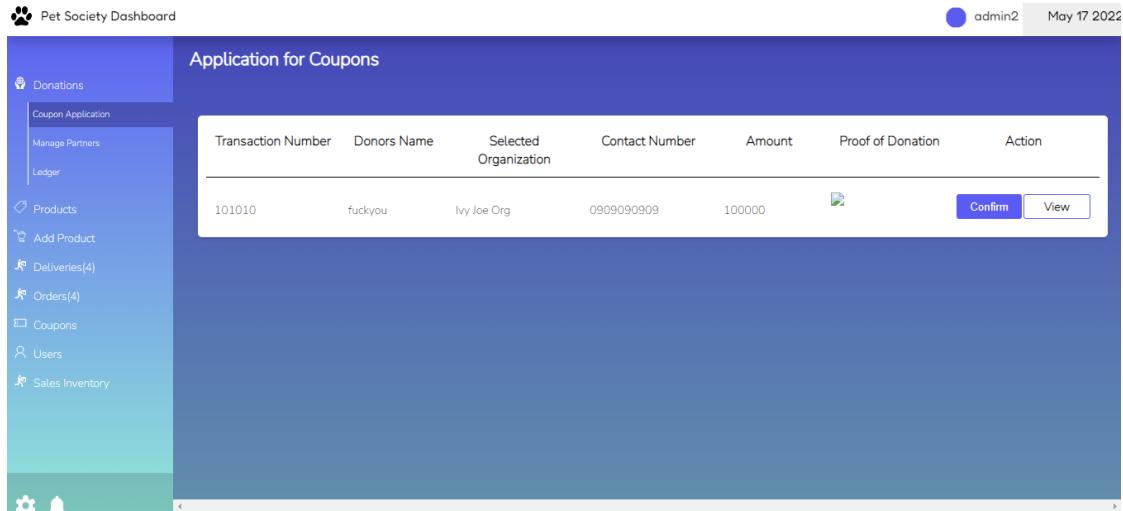


Figure 77: **Coupon Application**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
confirm	button	N/A	N/A	N/A
view	button	N/A	N/A	N/A
LOGIC:				
1. If the confirm button is clicked, the system confirm the application				
2. If the view button is clicked, it will navigate to another page to view details and can confirm the application as well.				

MODULE NAME: Ledger

SCREEN NO. 28

SCREEN NAME: Donation Records

DESCRIPTION: The admin can search transaction number

Transaction Number	Full Name	Selected Organization	Contact Number	Date Confirmed
188009923	Ian John	IRO	099926996792	2022-05-15
2192112	Bangbang	IRO	213221	2022-05-15
2131221	Leni	IRO	231232	2022-05-15

Figure 78: **Donation Research**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
search transaction no	input	N/A	varchar	50
search	button	N/A	N/A	N/A
LOGIC:				
1. Input transaction number				
2. If the view button is clicked, it will search the transaction number				

MODULE NAME: Products

SCREEN NO. 29

SCREEN NAME: View All Products

DESCRIPTION: The admin can edit and delete the product

PRODUCT NAME	PRICE	QUANTITY	Action
Special Dog Execellence	50	49	<button>Edit</button> <button>Delete</button>
Pedigree	230	40	<button>Edit</button> <button>Delete</button>
Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food	70	41	<button>Edit</button> <button>Delete</button>
Meow Mix Dry Cat Food, 55.5 fl oz, 3.47 lb	75	50	<button>Edit</button> <button>Delete</button>
Friskies 7 Dry Cat Food, 16 lb. Bag	35	50	<button>Edit</button> <button>Delete</button>
Purina Kit and Caboodle Cat Food (13 lbs)	80	50	<button>Edit</button> <button>Delete</button>
V Aquaria Tropical Fish Food Discus Gran D 60, Packaging Type: Packet, Packaging Size: 100g	500	50	<button>Edit</button> <button>Delete</button>

Figure 79: View all Products

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
edit	button	N/A	N/A	N/A
delete	button	N/A	N/A	N/A
LOGIC:				
1. If the edit button is clicked, it will direct to another page and update details from the product selected				
2. If the delete button is clicked, it will delete a product from the table				

MODULE NAME: Coupons

SCREEN NO. 30

SCREEN NAME: View All Coupons

DESCRIPTION: The admin can view all registered coupon

Full Name	Coupon
Ian John	YAhhkXxr
Bongbong	KVCuzVWa7
Leni	eKxTD0fM

Figure 80: View all Coupon

MODULE NAME: Users

SCREEN NO: 31

SCREEN NAME: View all users

DESCRIPTION: The admin can view all the registered users in the syst

Image	Name	User Id	Email	Contact No.	Location
	Santander	1	santanader@gmail.com	09995967301	zone ube pakna-an mandaue city
Delete User					
	meme	2	mememe@gmail.com	123123123	zone ube pakna-an mandaue city
Delete User					
	eyen	3	ianjohn0606@gmail.com	123123	jaime st
Delete User					
	Bongbong Marcos	4	carlosjoshua.official@gmail.com	09087156683	Maxilom Ave.

Figure 81: Manage Us

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
delete	button	N/A	N/A	N/A
LOGIC:				
1. If the delete button is clicked, it will delete a user from the table				

MODULE NAME: Sales Inventory

SCREEN NO: 32

SCREEN NAME: Transaction History

DESCRIPTION: The admin can print, export pdf/excel then search date history

Order ID	Items	Customer	Date Delivered	Amount Collected
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₱300
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₱300
1	Special Dog Execelence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₱280
1	Special Dog Execelence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₱280

Figure 82: Transaction History

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
print	button	N/A	N/A	N/A
export to pdf	button	N/A	N/A	N/A
export to excel	button	N/A	N/A	N/A
search date	button	N/A	N/A	N/A
LOGIC:				
1. If the button “Print” is clicked, it can print all the data in the table				
2. if the button “Export to Excel” is clicked, it can export the data into .xls file				
3. If the button “Export to PDF” is clicked, it can export the data into .pdf file				
4. If the button “Search Date” is clicked, it can view data history from the previous transactions				

MODULE NAME: Pet Center Application

SCREEN NO: 33

SCREEN NAME: Pet Center Application

DESCRIPTION: The admin can confirm application from the pet centers

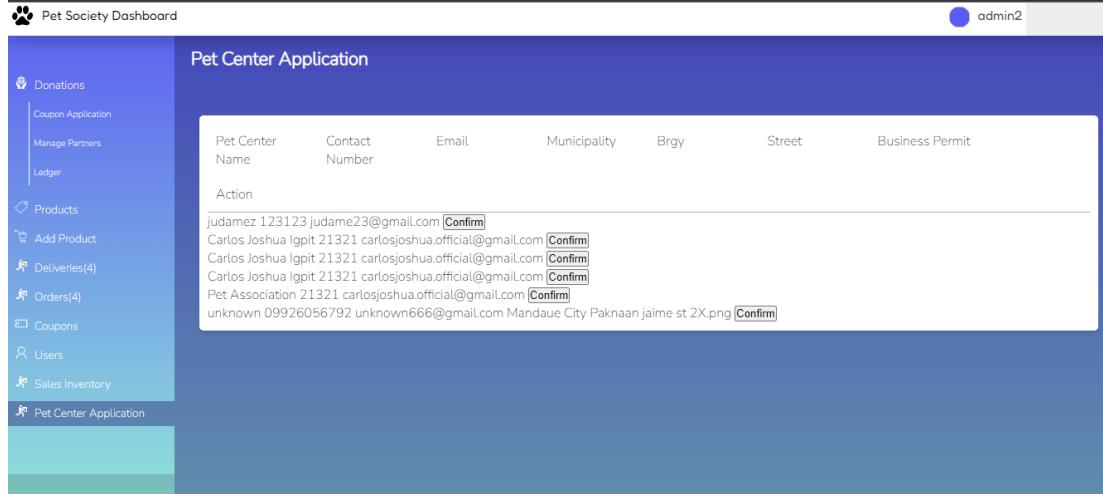


Figure 83: **Pet center Application**

ITEMS	TYPE	REQUIRED	DATA TYPE	SIZE
confirm	button	N/A	N/A	N/A
LOGIC:				
1. If the confirm button is clicked, it will confirm the application for the pet centers				

Database Design

Entity Relationship Diagram

The figure showed the relationship among entities stored in the database.

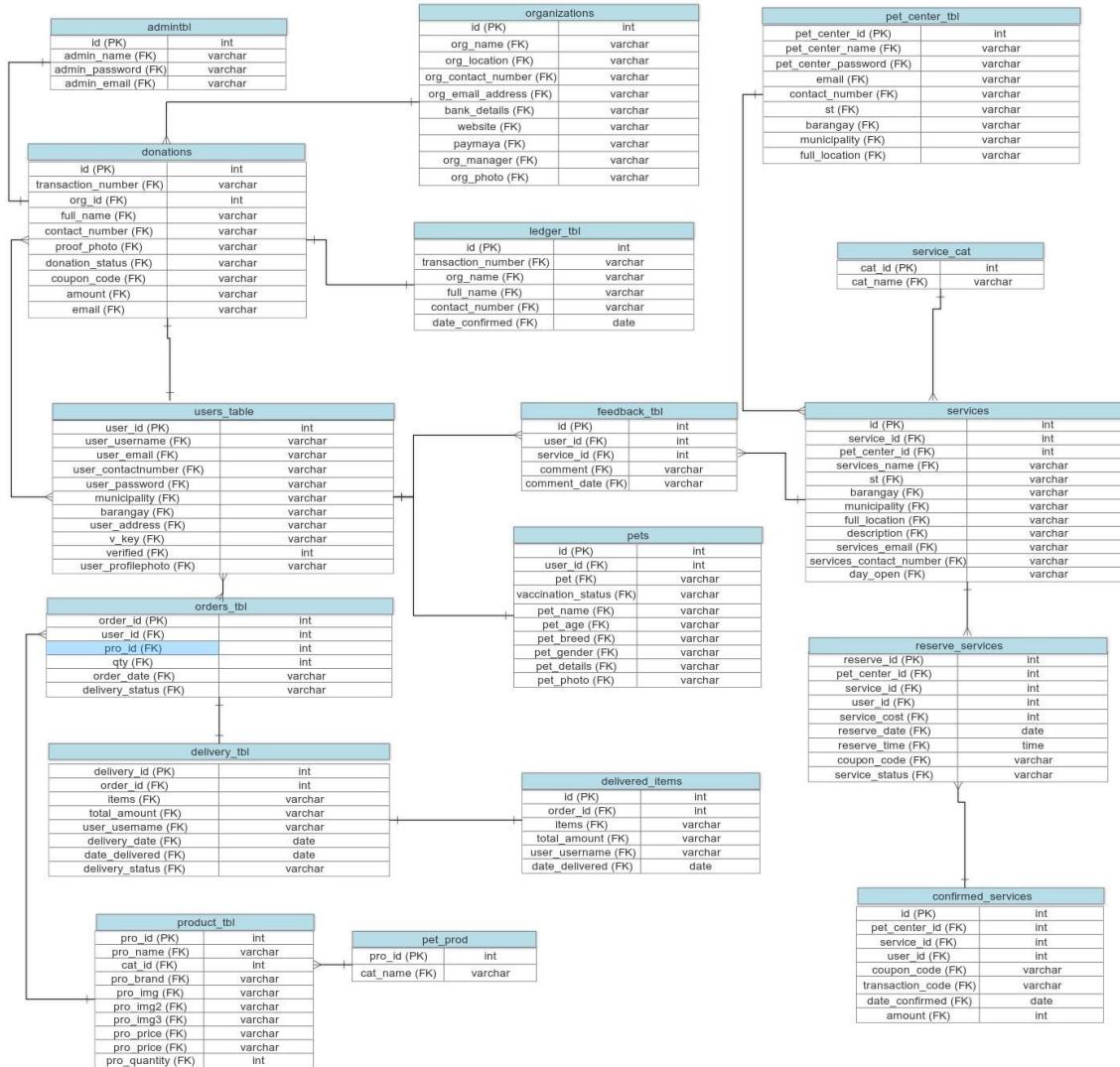


Figure 84: **Database Diagram of PetSociety**

The figure above showed the database diagram of the users and classes of PetSociety. It shows the relationship between the users and the admin.

Data Dictionary

The tables below showed the index, data type, sizes, and descriptions of the user data dictionary fields. A set of specifics that describe the type of data collected by a database, as well as its format, structure, and intended use.

Table 2
DATA DICTIONARY OF ADMIN TABLE

Column	Type	Size	Description
Id (<i>Primary</i>)	int	11	Unique id for admin
admin_name	varchar	50	Admin username
admin_password	varchar	50	Admin password
admin_email	varchar	50	Admin Email

Table 3
DATA DICTIONARY OF USERS TABLE

Column	Type	Size	Description
user_id (<i>Primary</i>)	int	11	User id
user_username	varchar	50	User name
user_email	varchar	50	User email
user_contactnumber	varchar	50	User contact number
user_password	varchar	50	User password
municipality	varchar	50	Municipality of the user
barangay	varchar	50	Barangay Address of the user
user_address	varchar	255	Full Address of the User
v_key	varchar	50	Verification Key for the Email verification of the user
verified	Int	11	Verified
user_profilephoto	varchar	500	Image of the user

Table 4
DATA DICTIONARY OF PET CENTER TABLE

Column	Type	Size	Description
pet_center_id <i>(Primary)</i>	int	11	Id of the petcenter
pet_center_name	varchar	50	Name of the pet center
pet_center_password	varchar	50	Password of the petcenter
email	varchar	50	Email of the petcenter
contact_number	varchar	50	Contact number of the petcenter
st	varchar	50	St where the services located
barangay	varchar	50	Barangay where the services located
municipality	varchar	50	Municipality where the services located
full_location	varchar	50	Full location where the services located
pet_center_photo	varchar	500	Image of the pet center
active_coupon	varchar	50	If the pet center will allow to have coupons
verified	int	11	Verified

Table 5
DATA DICTIONARY OF ORGANIZATIONS TABLE

Column	Type	Size	Description
id <i>(Primary)</i>	int	11	Id of the org
org_name	varchar	50	Name of the org
org_location	varchar	50	Location of the org
org_contact_number	varchar	50	Contact number of the org
org_email_address	varchar	50	Email of the org
org_photo	varchar	500	Image of the org

Table 6
DATA DICTIONARY OF PRODUCT TABLE

Column	Type	Size	Description
pro_id (<i>Primary</i>)	int	11	Id of the product
pro_name	varchar	255	Name of the product
cat_id	int	11	Category id of the product
pro_brand	varchar	50	Brand of the product
pro_img	varchar	500	Sample image of the product
pro_img2	varchar	500	Sample image of the product
pro_img3	varchar	500	Sample image of the product
pro_img4	varchar	500	Sample image of the product
pro_price	varchar	500	Price of the product
pro_quantity	int	11	Quantity of the product
pro_keyword	varchar	500	Keyword of the product

Table 7
DATA DICTIONARY OF PETS TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Id of the pet
user_id	int	11	Id of the user
pet_name	varchar	50	Name of the pet
pet_age	varchar	50	Age of the pet
pet_breed	varchar	50	Breed of the pet
pet_gender	varchar	50	Gender of the pet
pet_details	varchar	50	Details of the pet
pet_photo	varchar	50	Image of the pet
date_time_posted	varchar	50	Time posted

Table 8
DATA DICTIONARY OF SERVICES TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Id of the service
service_id	int	11	Category id of the service
pet_center_id	int	11	Id of the pet center that owned the service
services_name	varchar	255	Name of the service
st	varchar	255	Street where the services located
municipality	Varchar	50	Municipality where the services located
barangay	Varchar	50	Barangay where the services located
full_location	Varchar	50	Full location where the services located
description	varchar	255	Description of the services
services_email	varchar	255	Email of the service
services_contact_number	varchar	50	Contact number of the service
day_open	varchar	50	Day open of the service
day_close	varchar	50	Day close of the service
time_open	time		Time open of the service
time_close	time		Time close of the service
accept_coupon	Varchar	50	If the services will accept coupons
service_cost	varchar	50	Cost of the service
discount	float		Discount of the service
service_photo	varchar	500	Image of the service
people_req	varchar	50	People required in a service
people_visited	varchar	50	People visited in a service

Table 9
DATA DICTIONARY OF DONATIONS TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Id of the donation
transaction_number	varchar	50	Gcash transaction number
org_id	Int	11	Id of the organization selected
full Name	varchar	50	Name of the donator
contact_number	varchar	50	Contact number of the donator
proof_photo	varchar	50	Proof of payment
donation_status	varchar	50	Status of the Donation
coupon_code	varchar	50	Coupon Code
amount	varchar	50	Amount given
email	varchar	50	Email of the donator

Table 10
DATA DICTIONARY OF ORDERS TABLE

Column	Type	Size	Description
order_id (<i>Foreign Key</i>)	int	11	Id of the order
user_id	int	11	Id of the user
pro_id	int	11	Id of the product
qty	int	11	Quantity of the order
order_date	varchar	50	When the order has placed
delivery_status	varchar	255	Status of the order

Table 11
DATA DICTIONARY OF CATEGORY OF THE PRODUCT

Column	Type	Size	Description
prod_id (<i>Primary</i>)	int	11	Id of the category
cat_name	varchar	50	Name of the category

Table 12
DATA DICTIONARY OF CATEGORY OF THE SERVICES

Column	Type	Size	Description
cat_id (<i>Primary</i>)	int	11	Id of the category
cat_name	varchar	50	Name of the category

Table 13
DATA DICTIONARY OF ITEMS TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Id of the delivery
order_id	int	11	Id of the order
items	varchar	100	Items of the order
total_amount	varchar	50	Total amount ordered
user_username	varchar	70	Name of the user
date_delivered	date		Date delivered from the user

Table 14
DATA DICTIONARY OF CONFIRMED SERVICES TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Confirmation id
pet_center_id	int	11	Id of the pet center id
service_id	int	11	Id of the service selected
user_id	int	11	Id of the user
coupon_code	varchar	50	Coupon code
transaction_code	varchar	50	Transaction code
date_confirmed	date		Date confirmed
amount	int	11	Amount
status	varchar	50	Status of the delivery

Table 15
DATA DICTIONARY OF DELIVERY TABLE

Column	Type	Size	Description
delivery_id (<i>Primary</i>)	int	11	Id of the delivery
order_id	int	11	Id of the order
items	varchar	100	Items bought
total_amount	varchar	100	Total amount of the order
user_username	varchar	50	Name of the user
delivery_date	date		When will be the order be delivered
delivery_status	varchar	100	Status of the delivery

Table 16
DATA DICTIONARY OF FEEDBACK TABLE

Column	Type	Size	Description
id (<i>Primary</i>)	int	11	Id feedback
user_id	int	11	Id of the user
service_id	int	11	Id of the service
comment	varchar	255	Comment of the user
comment_date	Varchar	50	Date when the user commented on the service

Table 17
DATA DICTIONARY OF CONFIRMED DONATIONS

Column	Type	Size	Description
id (<i>Primary</i>)	Int	11	Id of the ledger
transaction_number	varchar	50	Transaction number
org_name	varchar	50	Name of the organization
full_name	varchar	50	Full name of the user
contact_number	varchar	50	Contact number of the user
date_confirmed	varchar		Date Confirmed
coupon_code	Varchar	50	Coupon code of the user

Table 18
DATA DICTIONARY OF RESERVE SERVICES

Column	Type	Size	Description
reserve_id (<i>Primary</i>)	int	11	Id of the reservation
pet_center_id	int	11	Id of the pet center
service_id	int	11	Id of the service
user_id	int	11	Id of the user
service_cost	int	11	Amount of the service
reserve_date	date		Date reservation
reserve_time	date		Time reservation
coupon_code	varchar	50	Coupon code
transaction_code	varchar	50	Transaction code
service_status	varchar	50	Status of the reservation

Network Design

The study's network design is depicted in the figure below. It depicts the visual representation of the system's components and the flow of information.

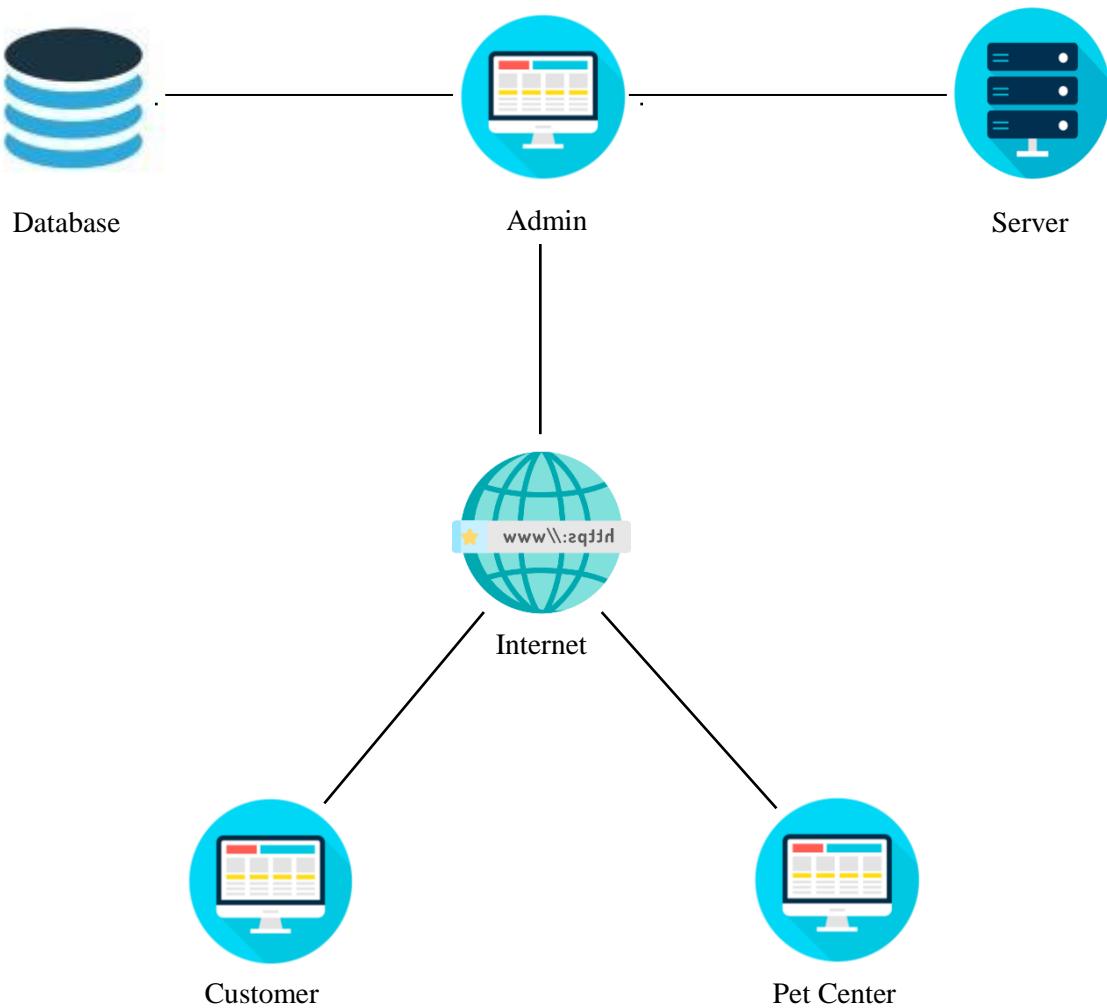


Figure 85: **PetSociety Network Design**

System design that focuses on data transmission technologies is known as network design. Analysis, requirement development, and implementation are the first steps in network design. The diagram above depicts the logical order in which each server's data is transmitted.

Development/Construction/Build Phase

The prototypes created during the analysis-design phase are transformed into a working information system that meets the documented system requirements during the development/construction/build phase.

Technology Stack Diagram

The figure below showed the frontend and backend application used in the study.

FRONTEND	BACKEND
 JavaScript 	  

Figure 86: PetSociety: Technology Stack Diagram

The technology stack combines the programming languages, and tools in building an app. The above diagram shows the two components; the backend and the frontend.

List of Modules

Table 19

LIST OF MODULES

Programmer	Modules	User	Pet Center	Admin
	Account Management			
Charles Christian Tunacao	Create Account	✓	✓	✓
	Login Account	✓	✓	✓
	Update Account	✓	✓	✓
No. of Points (1 point per module per user)		3	3	3

Programmer	Modules	User	Pet Center	Admin
	Order Management			
Ian John Ticod	Add to Cart	✓		
	Place Order	✓		
	Confirm Order			✓
	Confirm Deliveries			✓
	Order History	✓		
No. of Points (1 point per module per user)		3		2

Programmer	Modules	User	Pet Center	Admin
	Product Management			
Carlos Joshua Igpit	Add Product			✓
	Edit Product			✓
	Delete Product			✓
	Sales Inventory			✓
No. of Points (1 point per module per user)				4

Programmer	Modules	User	Pet Center	Admin
	Services Management			
Judah Mae Oliamot	Add Services		✓	
	Appointment Booking		✓	
	Appointment Confirmation		✓	
	Coupon Confirmation		✓	
	View Pet Information		✓	
No. of Points (1 point per module per user)			5	

Programmer	Modules	User	Pet Center	Admin
	User Management			
Ian John Ticod	Verify Pet center application			✓
	View user account			✓
	Delete user account			✓
No. of Points (1 point per module per user)				3

Programmer	Modules	User	Pet Center	Admin
	Donation Management			
Carlos Joshua Igpit	Add Pet Organization			✓
	Generate Coupon			✓
	Ledger			✓
No. of Points (1 point per module per user)				3

Testing/Quality Assurance Phase

The testing/quality assurance phase explores the system, finds defects and meets expectations of a quality product. This phase includes unit, integration, alpha, and acceptance testing.

Unit Testing

Table 20

UNIT TESTING

Module Name	Unit Name	Date Testing	Test Case ID	Test Case Description	Expected Results	Actual Results	Remarks
Account Management							
	Register Account	03-10-22	TC - 001	Valid Entries	Successfully Registered	Performed as expected	Passed
	Register Account	03-10-22	TC - 002	Invalid Entries	An error occurred	Performed as expected	Passed
	Login Account	03-10-22	TC - 003	Valid Entries	Successfully Login	Performed as expected	Passed
	Login Account	03-10-22	TC - 004	Invalid Entries	An error occurred	Performed as expected	Passed
	Update Account	03-10-22	TC - 005	Valid Entries	Successfully updated	Performed as expected	Passed
	Update Account	03-10-22	TC - 006	Invalid Entries	An error occurred	Performed as expected	Passed
Product Management							
	Add Product	03-12-22	TC - 007	Valid Entries	Successfully added	Performed as expected	Passed
	Add Product	03-12-22	TC - 008	Invalid Entries	An error occurred	Performed as expected	Passed
	Update Product	03-12-22	TC - 009	Valid Entries	Successfully updated	Performed as expected	Passed
	Update Product	03-12-22	TC - 010	Invalid Entries	An error occurred	Performed as expected	Passed

	Delete Product	03-12-22	TC - 011	Valid Entries	Successfully deleted	Perform as expected	Passed
	Delete Product	03-12-22	TC - 012	Invalid Entries	An error occurred	Perform as expected	Passed
	Sales Inventory	03-12-22	TC - 013	Valid Entries	Successful inventory	Perform as expected	Passed
	Sales Inventory	03-12-22	TC - 014	Invalid Entries	An error occurred	Perform as expected	Passed
Order Management							
	Add to cart	04-23-22	TC - 015	Valid Entries	Successfully added	Perform as expected	Passed
	Add to cart	04-23-22	TC - 016	Invalid Entries	An error occurred	Perform as expected	Passed
	Place order	04-23-22	TC - 017	Valid Entries	Successfully placed	Perform as expected	Passed
	Place order	04-23-22	TC - 018	Invalid Entries	An error occurred	Perform as expected	Passed
	Confirm order	03-26-22	TC - 019	Valid Entries	Order confirmed	Perform as expected	Passed
	Confirm order	03-26-22	TC - 020	Invalid Entries	An error occurred	Perform as expected	Passed
	Confirm deliveries	03-26-22	TC - 021	Valid Entries	Delivered	Perform as expected	Passed
	Confirm deliveries	03-26-22	TC - 022	Invalid Entries	An error occurred	Perform as expected	Passed
	Order history	04-04-22	TC - 023	Valid Entries	Show history order	Perform as expected	Passed
	Order history	04-04-22	TC - 024	Invalid Entries	An error occurred	Perform as expected	Passed
Services Management							
	Add services	04-10-22	TC - 025	Valid Entries	Successfully added	Perform as expected	Passed

	Add services	04-10-22	TC - 026	Invalid Entries	An error occurred	Perform as expected	Passed
	Appointment booking	04-10-22	TC - 027	Valid Entries	Will send email for confirmation	Perform as expected	Passed
	Appointment booking	04-10-22	TC - 028	Invalid Entries	An error occurred	Perform as expected	Passed
	Appointment confirmation	04-10-22	TC - 029	Valid Entries	Will send email to confirm the request	Perform as expected	Passed
	Appointment confirmation	04-10-22	TC - 030	Invalid Entries	An error occurred	Perform as expected	Passed
	Coupon confirmation	04-10-22	TC - 031	Valid Entries	Found	Perform as expected	Passed
	Coupon confirmation	04-10-22	TC - 032	Invalid Entries	An error occurred	Perform as expected	Passed
	View pet information	04-10-22	TC - 033	Valid Entries	Retrieve and view	Perform as expected	Passed
	View pet information	04-10-22	TC - 034	Invalid Entries	An error occurred	Perform as expected	Passed
Donation Management							
	Add Pet organization	04-20-22	TC - 035	Valid Entries	Successfully added	Perform as expected	Passed
	Add Pet organization	04-20-22	TC - 036	Invalid Entries	An error occurred	Perform as expected	Passed
	Generate coupon	04-20-22	TC - 037	Valid Entries	Will send an email for the coupon code	Perform as expected	Passed
	Generate coupon	04-20-22	TC - 038	Invalid Entries	An error occurred	Perform as expected	Passed

	Ledger	04-20-22	TC - 039	Valid Entries	Will show the name and coupon code	Perform as expected	Passed
	Ledger	04-20-22	TC - 040	Invalid Entries	An error occurred	Perform as expected	Passed
User Management							
	Verify pet center application	04-25-22	TC - 041	Valid Entries	Will send email for verification	Perform as expected	Passed
	Verify pet center application	04-25-22	TC - 042	Invalid Entries	An error occurred	Perform as expected	Passed
	View user account	04-25-22	TC - 043	Valid Entries	Show the information	Perform as expected	Passed
	View user account	04-25-22	TC - 044	Invalid Entries	An error occurred	Perform as expected	Passed
	Delete user account	04-25-22	TC - 045	Valid Entries	Successfully deleted	Perform as expected	Passed
	Delete user account	04-25-22	TC - 046	Invalid Entries	An error occurred	Perform as expected	Passed

Integration Testing

Table 21
INTEGRATION TESTING TABLE

Test Case ID	Module 1	Integration Process	Module 2	Precondition	Result	Remarks
TC-047	Account Management	Account creation for the users	User Management	Must be verified by the admin	Successfully registered	Passed
TC-048	Order Management	Make orders, and confirming orders	Order Management	Confirmation of orders by the admin	Successfully confirmed	Passed
TC-049	Product Management	Add, Updated, and Delete of the product	Product Management	Admin should manage products	Successfully added	Passed
TC-050	Donation Management	Make donation to the selected pet org and generate coupon	Donation Management	Must be checked and verified by the admin.	Successfully donated	Passed
TC-051	Services Management	Add, book appointment, and confirmation	Services Management	Must be confirmed by the Pet Centers	Successfully confirmed	Passed
TC-052	User Management	View, verify, and delete users	Account management	Users must comply credentials	Successfully verified	Passed

Alpha Testing

Table 22
ALPHA TESTING

Test Criteria	Poor	Fair	Good	Very Good
GRAPHICAL USER INTERFACE (GUI)				
Consistency (The user Interface is of the same formatting style and icons throughout the system)			✓	
Reusability (The system contains reusable GUI components such as familiar button, text, and check boxes, and other tools.)			✓	
Forgiveness and Tolerance (The Interface display message or confirmation prompts that would allow the users to undo or redo critical actions.)				✓
Simplicity (The GUI design include simple GUI buttons, such as simple screens with clear, uncrowded message.)			✓	
Readability (The interface has appropriate colors, font size, and style that is convenient to target users.)			✓	
Clarity (Displayed error, help, and warning message are clear, concise, and as elementary as possible to assist the user in operating the software.)				✓
User-friendliness (The GUI design must be user friendly, by providing a helpful, courteous, and non-offending message.)			✓	
SYSTEM PERFORMANCE				
Conformance to the Requirement (The system effectively met all the identified features and/ or requirements.)			✓	
Conformance to the Objective (All specific objectives of the system are met by the programs.)				✓
Efficiency (The entire system functions efficiently.) It doesn't have a delay in any transaction.			✓	
Security (The system is secured. Login details are authenticated. Input parameters are ensured before the execution of the next transactions.)			✓	
Integrity (The software allows the registered user to have control over its private information.)			✓	
Overall Impression (In general, the program or system is functional and useful.)				✓

Acceptance Testing

Table 23
ACCEPTANCE TESTING

Attribute being evaluated	Please check only one for each attribute				
Functionality: Does the system meet all the functionality prescribed by the modules given?					
				✓	
E D C B A					
Comment: <u>The functionalities meet the requirements.</u>					
Robustness: Can the system operate repeatedly without getting any errors or without any adjustment?					
				✓	
E D C B A					
Comment: <u>The system can operate without failing most of the time.</u>					
Workmanship: Does the system fabrication show quality workmanship (e.g. use of proper don't attribute objectives)?					
				✓	
E D C B A					
Comment: <u>The system shows good UI principles and validates data for processing and storing.</u>					
Overall: Grades recommendation					
				✓	
E D C B A					
Comment: <u>Overall, the system is a B+ grade.</u>					

A – Excellent

D - Fair

B – Very Good

E – Poor

C – Good

			✓	
E	D	C	B	A

Implementation/Deployment Phase

The implementation/deployment phase consists of the system's development, execution, and deployment into the production environment.

Deployment Diagram

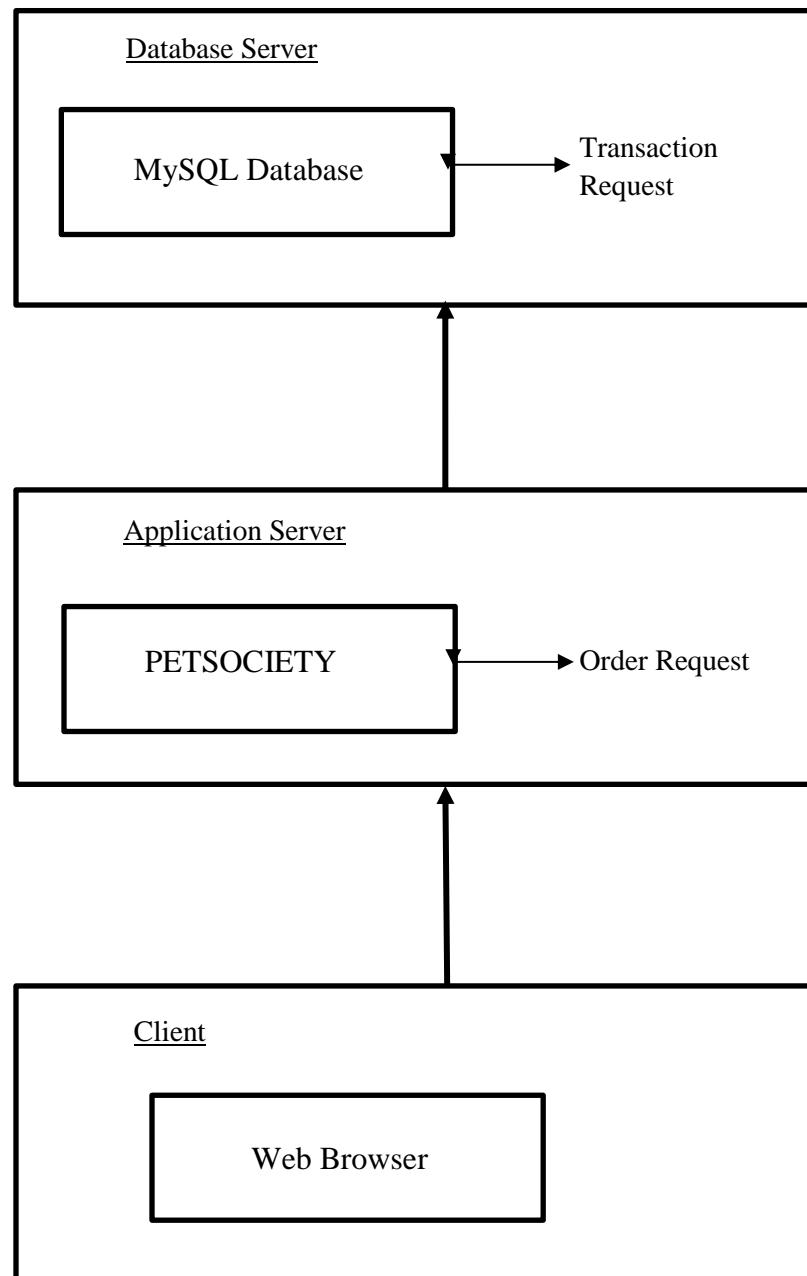


Figure 87: **Deployment Diagram of PetSociety**

The figure above illustrates PetSociety deployment diagram, where the request process from client to application to database.

Implementation Budget/Cost Specification

Hardware:	
1. Computer Unit	₱ 48,000.00
	₱ 48,000.00
Software:	
1. Visual Studio	Open Source
Miscellaneous:	
1. Electricity	₱ 3,000.00
2. Internet Connection	₱ 2,900.00
	₱ 5,600.00
Total Cost of the System	₱ 53,900.00

Software Specification

Table 24

SOFTWARE SPECIFICATION

<u>Versioning Software</u>		GitHub
<u>Back-End</u>		
	Operating System	Windows 10
	DBMS	MYSQL
	Platform Technologies	Visual Studio
	Programming Language	PHP
<u>Front-End</u>		
	Scripting Language	JavaScript
	Design Tools	HTML and CSS
	UI Environment	Web
	Editors	Visual Studio

Hardware Specification

Table 25

HARDWARE SPECIFICATION

	Client	Server
1. Central Processing Unit (CPU)	1.9 gigahertz (GHz) x86-or x64-bit dual core processor with SSE2 instruction set	3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set
2. System Memory	512 MB - 1 GB+	32 – 64 GB
3. Hard Disk	500 MB – 1GB free space	500 GB free space
4. Network Adapter	128 Kbps – 100 Mbps	Gigabit Ethernet Adapter (10/100/1000baseTPHY/MAC)
5. Graphics Card	Direct X 9 and 3D capable with 512 VRAM	
6. Monitor		1366x768, “64-bit True Color

7. Keyboard	Standard PS/2 or USB Keyboard	USB Keyboard
8. Mouse	Serial or USB Mouse	USB Mouse

Program Specification Functional Requirements

- The system will allow the user to login with email or password.
- The system will allow the user to continue using other services if the user completes the registration process and is approved by the Admin.
- The system will allow the admin to manage users.
- The system will allow the user to manage profile.
- The system will allow the users to view services and products.
- The system will allow the users to post pet information.
- The system will allow the users to book appointment.
- The system will allow the users to post feedback.
- The system will allow the users to order products.
- The system will allow the pet center to manage services.
- The system will allow the pet center to generate report.
- The system will allow the admin to manage products.
- The system will allow the admin to manage orders.
- The system will allow the admin to generate coupon.
- The system will allow the admin to generate sales inventory

Non-Functional Requirements

- The system is dependent on the internet connection.
- Only registered users can use the services provided by PetSociety that the Admin approve.
- The PetSociety do not have online payment transactions.

Human Resources Specification

PetSociety: A Software-as-a-Service caters to an organization to the following user needs:

1. Customers
2. Pet centers
3. Admin

User-Guide

Customer

User Registration

Step 1. The customers must first register.

Fill in the user credentials, and click the “Sign Up” button.

Step 2. The customers must login their registered username and password.

Fill in the user credentials, and click the “Login” button.

Step 3. To purchase products, Click the “Add to cart” under the product image.

The screenshot shows the PetSociety website's product listing page for dogs. At the top, there is a navigation bar with links for Pet Store, Services, Donate, Discover, and a search bar. Below the navigation bar, there are category filters for Dog, Cat, Fish, Bird, and others. A "FEATURED PRODUCTS" section is displayed, divided into "Dog Products" and "Cat Products". Under "Dog Products", three items are shown: "Special Dog Execelience" (₹50), "Pedigree" (₹230), and "Pro Plan Adult 7+ Sport Performance 30/17" (₹70). Each product has a "View" and "Add to Cart" button below it. Under "Cat Products", there are three small thumbnail images of cat food bags.

Step 4. To view details of the products, click the “View” under the product image.

The screenshot shows the PetSociety website's product details page for dogs. The top navigation bar includes links for Pet Profile, Ledger, and a user profile section with options for Profile, My Orders, Transaction History, and Log Out. The main content area displays the same three dog products as the previous screen: "Special Dog Execelience" (₹50), "Pedigree" (₹230), and "Pro Plan Adult 7+ Sport Performance 30/17" (₹70). Each product image has a "View" button below it, which likely links to a detailed product page.

Step 5. To place your order, click “Cart” and then click “Place order”.

Image	Product Name	Quantity	Price	Sub Total	Remove
	Pedigree	2	₱230	₱460	
	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food	2	₱70	₱140	
	Friskies 7 Dry Cat Food, 16 lb. Bag	1	₱35	₱35	
	Kaytee Koi Choice Koi Floating Fish Food 10 LB Bag	1	₱450	₱450	

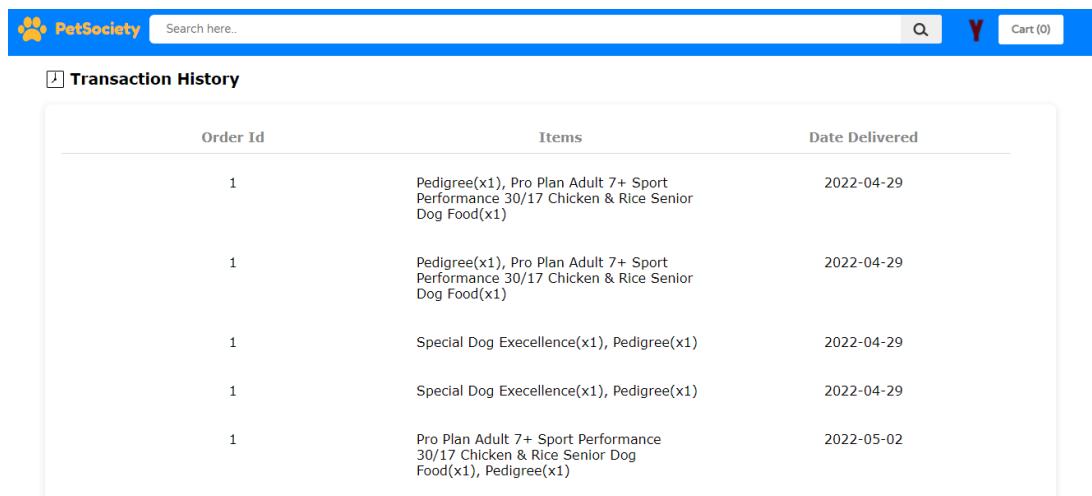
Total Amount: ₱1085 **Place Order**

Step 6. After clicking “Place Order”, your orders will appear. Click “Cancel” to cancel order.

ITEMS	SUB-TOTAL	ORDER STATUS	ACTION
Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	₱70	PENDING	Cancel
Special Dog Excellence(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	₱350	PENDING	Cancel

TOTAL AMOUNT: ₱420

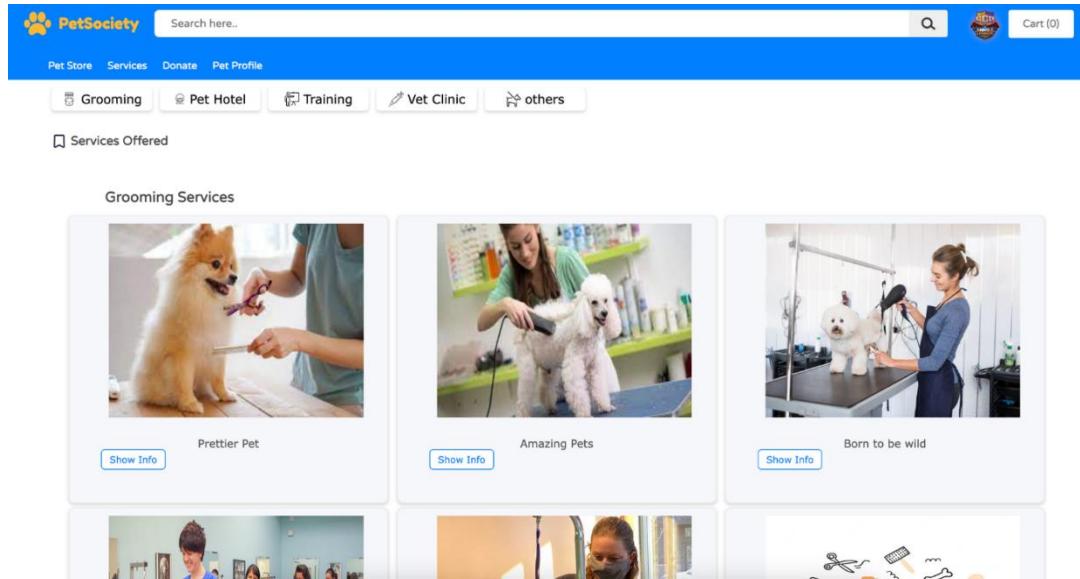
Step 7. Click your image in the upper right and then click “**Transaction History**” to show the transaction history.



The screenshot shows the PetSociety website's Transaction History page. At the top, there is a navigation bar with the PetSociety logo, a search bar, and a cart icon showing 'Cart (0)'. Below the navigation bar, the title 'Transaction History' is displayed. The main content is a table with three columns: 'Order Id', 'Items', and 'Date Delivered'. There are five rows of data in the table.

Order Id	Items	Date Delivered
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	2022-04-29
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	2022-04-29
1	Special Dog Execellence(x1), Pedigree(x1)	2022-04-29
1	Special Dog Execellence(x1), Pedigree(x1)	2022-04-29
1	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	2022-05-02

Step 8. To find pet services, click the “**Services**”.



Step 9. To avail services, click “Show Info” and click “Reserve”

Amazing Pets

Service Category: **Pet Training**

Contact Number: **092266662123**

Email Address: **ianjohn0101@gmail.com**

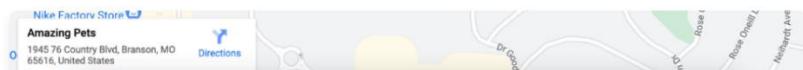
Time Open: **8:00 AM**

Time Close: **4:00 PM**

Service Cost: **75**

Reserve(without coupon)

Location



Step 10. After clicking “Reserve”, set a date, and time for the appointment. Click “Reserve” to confirm appointment.

Please verify your coupon to get the exact amount!

Book Appointment:

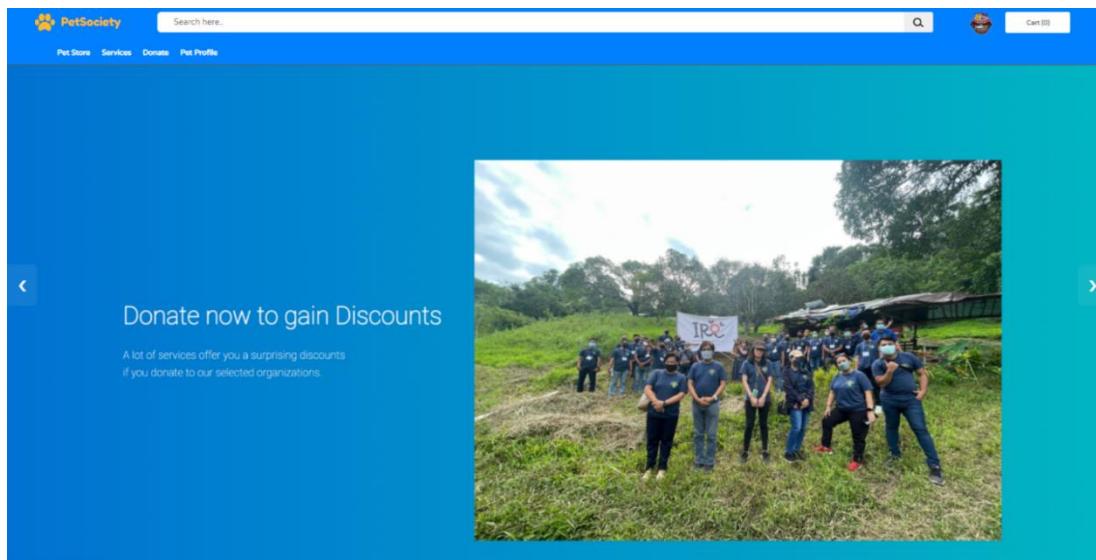
Time:

Coupon Code:

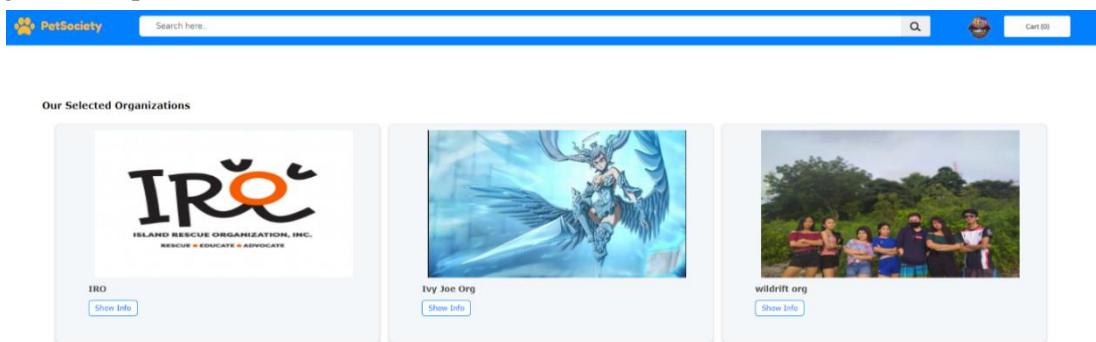
Service Cost:

RESERVE GO BACK

Step 11. To donate, click “**Donate**” to show pet organizations.



Step 12: Click “**Show Info**” and the donor can donate through the bank details that the pet organization provided.



Step 13: To apply for coupon, click “**Apply for Coupon**” under the information of pet organization.

ISLAND RESCUE ORGANIZATION, INC.

RESCUE • EDUCATE • ADVOCATE

IRO

IRO cares for over 100 companion animals who are awaiting adoption into forever homes. IRO also cares for a number of animals who are receiving treatment for medical injuries or illnesses or are being rehabilitated for behavioural issues relating to their backgrounds. IRO is run entirely by a team of volunteers and as a community-focused organization; IRO not only relies on the support of the public (both local and international) for funding but also to assist with the organization's operations. IRO is affiliated with Friends for the Protection of Animals (USA), a US-501 c (3) non-profit animal rescue organization.

Location	Iloc	Website	
GCash Number	123123123	Paymaya	
Email Address	judame@gmail.com	Organization Manager	
Bank Details		Facebook	

Apply for Coupon

Step 14: After clicking “Apply for Coupon”, fill in the form and upload proof of donation and Click “**Submit**”.

G

Inform Us with your Gcash Transaction with the Organization so that we can provide you the Coupon code >

GCash Ref. Number	GCash Number
Name	Email
Amount	Drop file here or click to upload

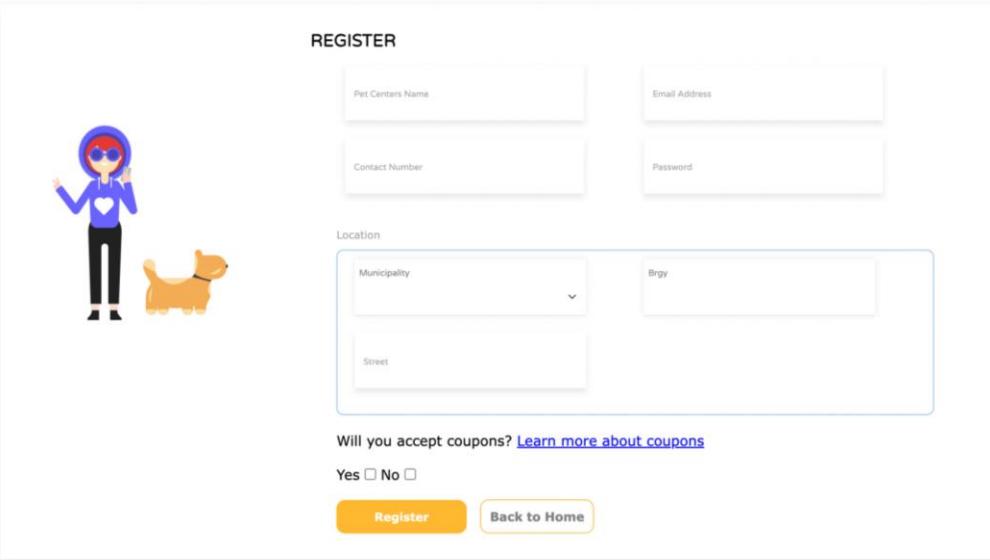
Submit

Pet Center

Pet Center Registration

Step 1. The pet center must first register.

Fill in the user credentials, and click the “Sign Up” button.



The image shows a registration form titled "REGISTER". It features a cartoon illustration of a person in a purple hoodie and black pants standing next to a small brown dog. The form includes fields for "Pet Centers Name", "Email Address", "Contact Number", "Password", and "Location" (Municipality and Street). Below the form is a question about accepting coupons with "Yes" and "No" checkboxes, and a link to "Learn more about coupons". At the bottom are "Register" and "Back to Home" buttons.

REGISTER

Pet Centers Name

Email Address

Contact Number

Password

Location

Municipality

Brgy

Street

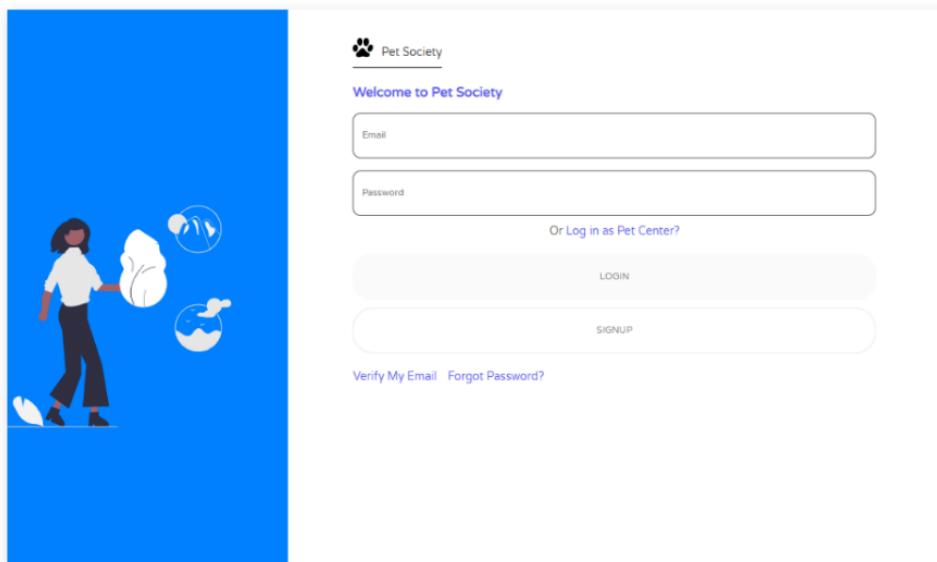
Will you accept coupons? [Learn more about coupons](#)

Yes No

[Register](#) [Back to Home](#)

Step 2. The pet center must login their registered username and password.

Fill in the user credentials, and click the “Login” button.



The image shows a login form for "Pet Society". It features a cartoon illustration of a person holding a white feather. The form includes fields for "Email" and "Password", and a link "Or Log in as Pet Center?". At the bottom are "LOGIN" and "SIGNUP" buttons, along with links for "Verify My Email" and "Forgot Password?".

Pet Society

Welcome to Pet Society

Email

Password

Or Log in as Pet Center?

LOGIN

SIGNUP

[Verify My Email](#) [Forgot Password?](#)

Step 3. To add services, click “Add services”. Fill up the form and click “**Add Service**”.

Pet Society

My services Add services Requests(17)

Name:	Service Day From: monday	Service Day To: monday
Service Cost:	Service Discount:	
Time Open: ---:--- ---	Photo: Drop file here or click to upload	
Time Close: ---:--- ---	Description:	
Select Category: Pet Grooming	Barangay :	
Municipality		
Street	Accept Coupon <input type="radio"/> Yes <input checked="" type="radio"/> No	

Step 4. Click “**Request**” to view appointment request.

Pet Society

My services Add services Requests(17)

Search here... Q

Requests

NAME	TIME	COUPON CODE	ACTION
Ian John Ticed	8:50 AM	Ets6124	Confirm View Pet
Bongbong Marcos	8:45 AM	N/A	Confirm View Pet
Ian John Ticed	8:47 PM	N/A	Confirm View Pet
Ian John Ticed	8:49 AM	asdadasdas	Confirm View Pet
Ian John Ticed	8:02 AM	DSADsds	Confirm View Pet
Ian John Ticed	12:07 PM	N/A	Confirm View Pet
Ian John Ticed	12:07 PM	N/A	Confirm View Pet
Ian John Ticed	9:27 PM	N/A	Confirm View Pet
Ian John Ticed	12:27 PM	N/A	Confirm View Pet

Step 5. Click “Confirm” to confirm appointment.

NAME	TIME	COUPON CODE	ACTION
Ian John Ticod	8:50 AM	Ets6124	Confirm View Pet
Bongbong Marcos	8:45 AM	N/A	Confirm View Pet
Ian John Ticod	8:47 PM	N/A	Confirm View Pet
Ian John Ticod	8:49 AM	asdsadasdas	Confirm View Pet
Ian John Ticod	8:02 AM	DSADsds	Confirm View Pet
Ian John Ticod	12:07 PM	N/A	Confirm View Pet
Ian John Ticod	12:07 PM	N/A	Confirm View Pet
Ian John Ticod	9:27 PM	N/A	Confirm View Pet
Ian John Ticod	12:27 PM	N/A	Confirm View Pet

Step 6. Click “View Pet” to view the pet information.

NAME	TIME	COUPON CODE	ACTION
Ian John Ticod	8:50 AM	Ets6124	Confirm View Pet
Bongbong Marcos	8:45 AM	N/A	Confirm View Pet
Ian John Ticod	8:47 PM	N/A	Confirm View Pet
Ian John Ticod	8:49 AM	asdsadasdas	Confirm View Pet
Ian John Ticod	8:02 AM	DSADsds	Confirm View Pet
Ian John Ticod	12:07 PM	N/A	Confirm View Pet
Ian John Ticod	12:07 PM	N/A	Confirm View Pet
Ian John Ticod	9:27 PM	N/A	Confirm View Pet
Ian John Ticod	12:27 PM	N/A	Confirm View Pet

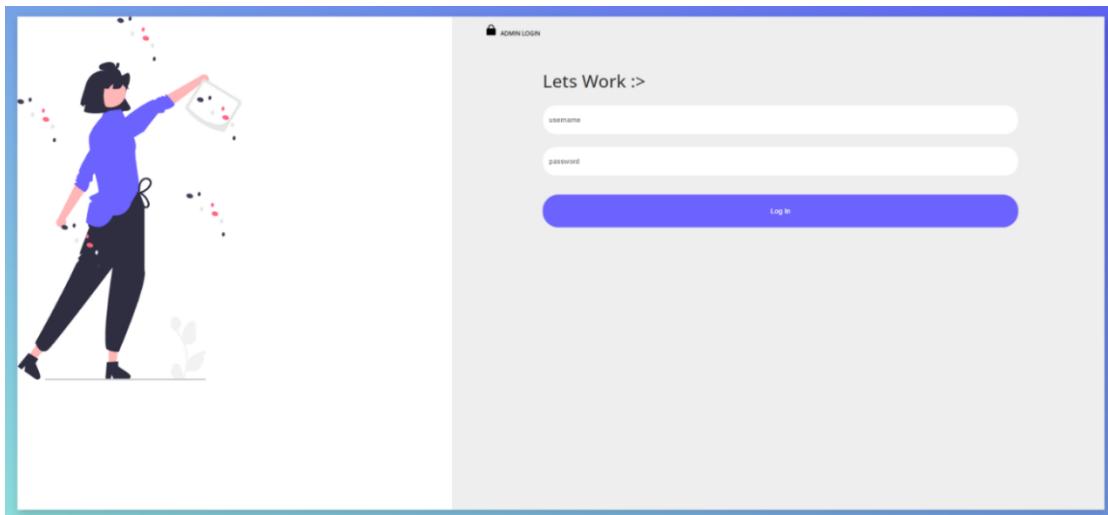
Pet: Bird
 Pet Name: bloody
 Pet Age: 5 months old
 Pet Breed: albs 1
 Pet Gender: Male
 Pet Details: lovebird namo nga samokan
 Vaccination Status: none
 Pet Photo: 2A.png

[Go Back](#)

Admin

Admin Login

Step 1. Fill in the admin credentials, and click the “**Login**” button.



Manage Order

Step 1. Click “**Orders**” to see orders.

Order ID	User	Items	Order Placed	Total Amount	Delivery Date	Action
4	Ian.John.Ticod	Special Dog Excellence(x1)		50	<input type="text" value="dd/mm/yyyy"/>	<button>Edit</button> <button>Delete</button>
5	Ian.John.Ticod	Pro.Plan.Adult.7+(Sport.Performance.30/17.Chicken.Rice.Senior.Dog.Food)(x1), Pedigree(x1), Friskies 7 Dry Cat Food, 16 lb. Bag(x1)		385	<input type="text" value="dd/mm/yyyy"/>	<button>Edit</button> <button>Delete</button>
6	Ian.John.Ticod	Special Dog Excellence(x1)	05/15/2022 09:40:56 am	435	<input type="text" value="dd/mm/yyyy"/>	<button>Edit</button> <button>Delete</button>

Step 2. Click “**Confirm**” to confirm order.

Pet Society Dashboard

admin2 May 18 2022

All Orders

Order ID	User	Items	Order Placed	Total Amount	Delivery Date	Action
1	Santander	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	05/18/2022 01:36:57 pm	310	1/05/2022	Confirm Cancel

Step 3. To cancel order, click “**Cancel**”.

Pet Society Dashboard

admin2 May 18 2022

All Orders

Order ID	User	Items	Order Placed	Total Amount	Delivery Date	Action
1	Santander	Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1), Pedigree(x1)	05/18/2022 01:36:57 pm	310	1/05/2022	Confirm Cancel

Manage Product

Step 1. To add product, click “**Add Product**”.

Step 2. Click “**Products**” to view all products.

PRODUCT NAME	PRICE	QUANTITY	Action
Special Dog Execellence	50	49	<button>Edit</button> <button>Delete</button>
Pedigree	230	40	<button>Edit</button> <button>Delete</button>
Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food	70	41	<button>Edit</button> <button>Delete</button>
Meow Mix Dry Cat Food, 55.5 fl oz, 3.47 lb	75	50	<button>Edit</button> <button>Delete</button>
Friskies 7 Dry Cat Food, 16 lb. Bag	35	50	<button>Edit</button> <button>Delete</button>
Purina Kit and Caboodle Cat Food (13 lbs)	80	50	<button>Edit</button> <button>Delete</button>
V Aquaria Tropical Fish Food Discus Gran D 60, Packaging Type: Packet, Packaging Size: 100g	500	50	<button>Edit</button> <button>Delete</button>

Step 3. Click “**Sales Inventory**” generate inventory.

Order ID	Items	Customer	Date Delivered	Amount Collected
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₱300
1	Pedigree(x1), Pro Plan Adult 7+ Sport Performance 30/17 Chicken & Rice Senior Dog Food(x1)	Ian John Ticod	2022-04-29	₱300
1	Special Dog Excellence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₱280
1	Special Dog Excellence(x1), Pedigree(x1)	Ian John Ticod	2022-04-29	₱280

Donation Management

Step 1. Click “**Manage Partners**” under donation to add pet organization.

Name	Location	Contact Number	Email Address	Edit	Delete
IRO	Isco	123123123	judanw@gmail.com	<button>Edit</button>	<button>Delete</button>
Ivy Joe Org	Lapu-lapu City	09225672509	ivyjoe@gmail.com	<button>Edit</button>	<button>Delete</button>
wildrift.org	opao mandaua city	09876782312	mobilelegends@gmail.com	<button>Edit</button>	<button>Delete</button>

Step 2. To confirm coupon, click “Coupon Application”.

Transaction Number	Donors Name	Selected Organization	Contact Number	Amount	Proof of Donation	Action
101010	fuckyou	Ivy Joe Org	0909090909	100000		<button>Confirm</button> <button>View</button>

Step 3. Click “Ledger” to see donation records.

Transaction Number	Full Name	Selected Organization	Contact Number	Date Confirmed
188009923	Ian John	IRO	099926956792	2022-05-15
2132132	Bongpong	IRO	21321	2022-05-15
213123	Leni	IRO	231232	2022-05-15

Step 4. To see the coupon records, click “Coupon”.

Full Name	Coupon
Ian John	YAhhlXxr
Bongbong	KVCuzWa7
Leni	ekxTD0fM

Step 5. To view all users information, click “User”.

Image	Name	User Id	Email	Contact No.	Location
	Santander	1	sanatander@gmail.com	09995967301	zone ube pakna-an mandaue city
	meme	2	mememe@gmail.com	123123123	zone ube pakna-an mandaue city
	eyen	3	ianjohn0606@gmail.com	123123	jaime st
	Bongbong Marcos	4	carlosjoshua.official@gmail.com	0907156683	Maxilom Ave.

Step 6. Click “**Pet Center Application**” to confirm the pet centers account.

The screenshot shows the Pet Society Dashboard interface. On the left, there is a sidebar with various menu items: Donations, Coupon Application, Manage Partners, Ledger, Products (with sub-options Add Product, Deliveries(4), Orders(4), Coupons, Users, Sales Inventory), and Pet Center Application. The Pet Center Application item is highlighted with a teal background. The main content area is titled "Pet Center Application". It contains a table with columns: Pet Center Name, Contact Number, Email, Municipality, Brgy, Street, and Business Permit. Below the table, there is a section labeled "Action" containing several entries, each with a "Confirm" button. The entries are: judamez 123123 judamez23@gmail.com [Confirm], Carlos Joshua Igpit 21321 carlosjoshua.official@gmail.com [Confirm], Carlos Joshua Igpit 21321 carlosjoshua.official@gmail.com [Confirm], Carlos Joshua Igpit 21321 carlosjoshua.official@gmail.com [Confirm], Pet Association 21321 carlosjoshua.official@gmail.com [Confirm], and unknown 09926056792 unknown666@gmail.com Mandaue City Paknaan jaime st 2X.png [Confirm].

Pet Center Name	Contact Number	Email	Municipality	Brgy	Street	Business Permit
judamez 123123	judamez23@gmail.com	[Confirm]				
Carlos Joshua Igpit 21321	carlosjoshua.official@gmail.com	[Confirm]				
Carlos Joshua Igpit 21321	carlosjoshua.official@gmail.com	[Confirm]				
Carlos Joshua Igpit 21321	carlosjoshua.official@gmail.com	[Confirm]				
Pet Association 21321	carlosjoshua.official@gmail.com	[Confirm]				
unknown 09926056792	unknown666@gmail.com	Mandaue City Paknaan jaime st 2X.png	[Confirm]			

Project Roadmap

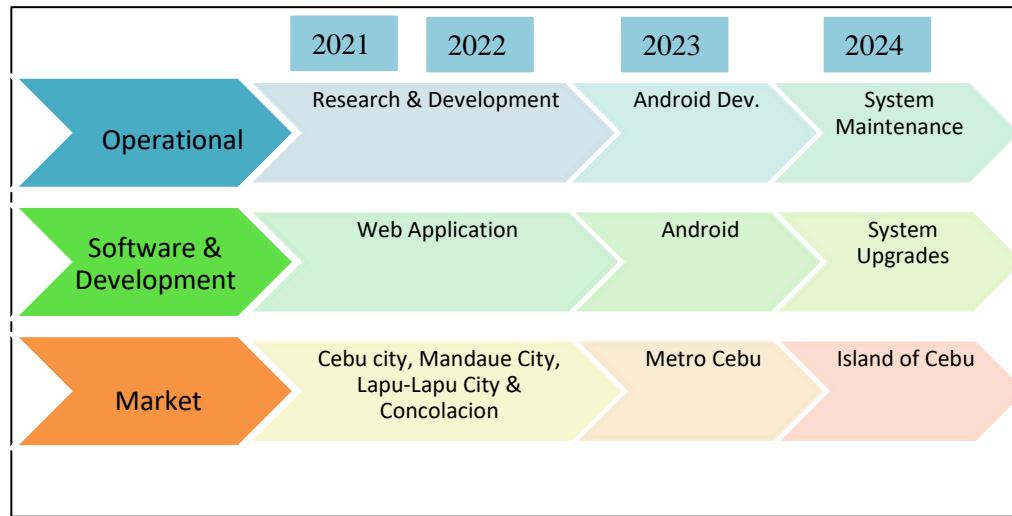


Figure 88: **Project Roadmap of PetSociety**

The figure above shows the project roadmap of PetSociety from its operation, software and dev, and market in the beginning of 2021-2024.

CHAPTER IV

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

PetSociety: A Software-as-a-Service for Pet Supplies and Services that aimed to help the customers look for available pet supplies online that are affordable and of good quality. Pet Society offers a web-based platform that is beneficial to the customers and pet centers. The study used a qualitative method via an online survey to gather data. The questionnaire consisted of questions based on customers' preferences and experiences purchasing pet supplies and booking reservations in pet centers. The researchers used the agile method to analyze and implement the data gathered.

Findings

In the result of this study, the following are gathered information based on the survey born by the researchers:

- Most of the customers usually buy pet supplies online than in physical stores.
- Most customers found it more hassle to buy pet products in physical stores than online.
- It has been found that online stores sell cheaper products than physical stores.
- The customers found that physical stores are more time-consuming considering buying pet products than online.
- Many customers had already booked an online reservation in pet centers, and they prefer online to the walk-in reservation. Also, it's been found that walk-in bookings are more time-consuming than online bookings.
- 81.3% of the customers were more satisfied if they could receive a coupon after donating to pet organizations.

Conclusion

The study concluded that most people preferred making a transaction online. It also showed many reasons why they chose online than walk-in. To name a few, convenient, selling cheaper products, not a hassle, and many more. In addition, the customers also liked to book a reservation online rather than going to physical pet centers because it can be done with just a click. Further, we concluded that not all customers wanted to receive something in return after donating to pet organizations.

Recommendations

After analyzing and interpreting the data, the researchers came up with the idea of proposing a system that addresses the current issues or concerns regarding pet product shopping and pet services searching. The current researchers recommended PetSociety: A software-as-a-service for pet supplies and services. A platform designed solely for pet owners. It aimed to help them look for affordable products and necessities for pet centers that offered pet services. For

instance, pet grooming, pet training, etc., will also be convenient for them and will not consume much of their time since it can be done in just one click without going to physical pet stores to make a reservation. Further, if the customer donated something to pet organizations, they can send us the proof of donation so that we can give them a short form of supplies through a coupon. The researchers then recommended using the coupon for a discount in their next avail on pet centers.

REFERENCES

- Baltusevičius, G. (2021). *What Is a Report Generator?* Blog | Whatagraph. <https://whatagraph.com/blog/articles/report-generator>
- Benefits of Software as a Service (SaaS) for Small Businesses.* (2017, May 4). Bellwether. Retrieved January 18, 2022, from <https://www.bellwethercorp.com/benefits-of-software-as-a-service-saas-for-small-businesses/>
- bpaeducators. (2021). *What is the Importance of MIS in Business Organization?* <https://www.bpaeducators.com/what-is-the-importance-of-mis-in-business-organization>
- Chai, W., & Casey, K. (n.d.). *Software as a Service (SaaS)*. Tech Target. Retrieved November 21, 2021, from <https://www.techtarget.com/searchcloudcomputing/definition/Software-as-a-Service>
- Chang, J. (1970). *Online Shopping: Advantages over the Offline Alternative / Open Access Journals.* Gcd. Retrieved January 22, 2022, from <https://www.icommercecentral.com/open-access/online-shopping-advantages-over-the-offline-alternative.php?aid=38815>
- Deep, M. (2021). *How SaaS Help Small Businesses To Flourish Amid Contingencies.* Incredo. Retrieved January 17, 2022, from <https://www.incredo.co/blog/how-saas-help-small-businesses-to-flourish-amid-contingencies/>
- Devlin, M. (2021). *The Benefits of Web Applications / Custom Web Apps.* GCD. Retrieved January 20, 2022, from <https://gcdtech.com/resources/blog/the-benefits-of-web-applications/>
- Diane, L. (2021). *What are the benefits of SAAS for small businesses?* Lifeyourway. Retrieved January 17, 2022, from <https://lifeyourway.net/what-are-the-benefits-of-saas-for-small-businesses/>
- Duch-Brown, N., Grzybowski, L., Romahn, A., & Verboven, F. (2017). *The impact of online sales on consumers and firms. Evidence from consumer electronics.* ScienceDirect. Retrieved January 27, 2022, from <https://www.sciencedirect.com/science/article/pii/S0167718717300929>
- Edrick Pirveysian | Senior Director of North American Sales. (2020). *4 ways our customers have made an impact with Google Maps Platform.* SADA | Cloud Technology Services | Google Cloud Premier Partner. <https://sada.com/insights/blog/4-ways-our-customers-have-made-an-impact-with-google-maps-platform/>
- Grant, M. (2021). *Software-as-a-Service (SaaS).* Investopedia. Retrieved November 21, 2021, from <https://www.investopedia.com/terms/s/software-as-a-service-saas.asp>

- Hall, D. (n.d.). *What is SaaS, and how can it help your business?* Hellotracks. Retrieved November 22, 2021, from <https://hellotracks.com/en/blog/What-is-SaaS-and-how-can-it-help-your-business/>
- Jamsheer, K. (2019). *Impact of e-Commerce On Society: Advantages and Disadvantages.* Acowebs. Retrieved January 19, 2022, from <https://acowebs.com/impact-e-commerce-society/>
- Jha, R. (2019). *Online shopping: Impact on city planning and infrastructure.* ORF. Retrieved January 20, 2022, from <https://www.orfonline.org/expert-speak/online-shopping-impact-city-planning-infrastructure-46937/>
- K. (2022). *The Benefits of Web-Based Apps for Businesses Amid Covid-19 Outbreak.* BusinessTech. <https://www.hashmicro.com/blog/the-benefits-of-web-based-apps/>
- Kamal, R. (2022). *Reasons Why Google Maps Is Important for Your Business.* Digistreet. Retrieved March 22, 2022, from <https://www.digistreetmedia.com/blog/reasons-why-google-maps-is-important-for-your-business>
- Khamooshi, P. (2019). *The benefits of using web-based applications / Geeks Insights.* Geeks Ltd. <https://www.geeks.ltd.uk/insights/the-benefits-of-using-web-based-applications>
- Khurana, A. (2019). *Is E-Commerce Right for Your Business? Check the Pros and Cons.* The Balance Small Business. <https://www.thebalancesmb.com/ecommerce-pros-and-cons-1141609>
- Kumar, H. (2017). *The What, Why, And How Of An Effective Management Reporting System.* Acuvate. Retrieved January 28, 2022, from <https://acuvate.com/blog/what-why-and-how-of-an-effective-management-reporting-system/>
- Lutkevich, B. (n.d.). *IT systems management.* TechTarget. Retrieved January 18, 2022, from <https://www.techtarget.com/searchitoperations/definition/systems-management>
- McCabe, L. (2021). *What is Systems Management, and Why Should You Care?* Small Business Computing. Retrieved January 22, 2022, from <https://www.smallbusinesscomputing.com/it-management/what-is-systems-management/>
- Morgan, L. (2020). *Humanâ“dog relationships during the COVID-19 pandemic: booming dog adoption during social isolation.* Nature. <https://www.nature.com/articles/s41599-020-00649-x>
- Rana, M. (2022). *How Can Google Maps Can Benefit Your Business?* EZ Rankings. Retrieved March 28, 2022, from <https://www.ezrankings.org/blog/how-google-maps-can-benefit-your-business/>

- Reasons Why Information Systems Are Important for Business Today.* (2021). Comodo One. Retrieved January 22, 2022, from <https://one.comodo.com/blog/msp/why-business-information-systems-are-important.php>
- Scott-Briggs, A. (2020). *The Impact of e-Commerce on Businesses.* TechBullion. <https://techbullion.com/impact-e-commerce-businesses/>
- Sharma, M. (2020). *What is an Impact Of ECommerce - MohitECommerce.* MohitEcommerce. <https://www.mohitecommerce.com/impact-of-ecommerce/>
- Shaw, G. (2017). *UNDERSTANDING THE IMPORTANCE OF AN EFFECTIVE MANAGEMENT REPORTING SYSTEM.* Medium. Retrieved January 28, 2022, from <https://medium.com/@GinaShaw/understanding-the-importance-of-an-effective-management-reporting-system-69017cd433b7>
- Shawn, S. (2022). *7 Reasons Why Appointment Scheduling is Good For Your Website.* SIMPLIFY. Retrieved January 13, 2022, from <https://blog.timify.com/7-reasons-why-appointment-scheduling-is-good-for-your-website>
- Staff, O. (2019). *Common Challenges with Shelter Pets.* Oakland Veterinary Referral Services. <https://www.ovrs.com/blog/challenges-with-shelter-pets/>
- Threats to Animal Ownership.* (n.d.). Protect The Harvest. <https://protecttheharvest.com/what-you-need-to-know/animal-owners>
- Turner, B. (2020). *What is SaaS? Everything you need to know about Software as a Service.* TechRadar. Retrieved November 22, 2021, from <https://www.techradar.com/news/what-is-saas>
- Why shopping online is better than in-store.* (n.d.). Theonlineshoppingexpert. Retrieved January 28, 2022, from <https://theonlineshoppingexpert.co.uk/expert-notes/why-shopping-online-is-better-than-in-store>
- Wilson, K. (2021). *Why Online Booking Systems are Paramount for Better Customer Experience in Retail Banking.* Coconut Software. Retrieved January 15, 2022, from <https://www.coconutsoftware.com/blog/why-online-booking-systems-are-paramount-for-better-customer-experience-in-retail-banking/>
- Woodruff, J. (2019). *Examples of Accounting Systems.* Small Business - Chron.Com. <https://smallbusiness.chron.com/examples-accounting-systems-25408.html>

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Junior High School	Corodova National High School

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- Programming (C#, C++, Java, HTML, and PHP)
- Microsoft Office (MS Word, Excel, PowerPoint)

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Senior High School	TechVoc - ICT University of Cebu-LM
Junior High School High	Don Gerardo LI. Ouano National School Opao Mandaue city
Primary Education	Opao Elementary School Opao Mandaue city

Skills

- Programming (C#, C++, Java, HTML, and PHP)
- Microsoft Office (MS Word, Excel, PowerPoint)

Appendix A
Transmittal Letter

December 4, 2021

DR. AURORA C. MIRO

Dean

College of Computer Studies

A.C. Cortes Ave, Mandaue City, 6014 Cebu

Dear Dr. Miro;

Good day!

We, 4th-year students of the University of Cebu Lapu-Lapu and Mandaue, are currently conducting a study on “PetSociety: A Software-as-a-Service for Pet Supplies and Services” as part of the Bachelor of Science in Information Technology requirement.

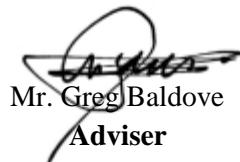
Given this, allow us to conduct an online survey to gain insight from different pet owners. So we could ultimately identify the results of our research study.

Your consideration of our proposal is greatly appreciated.

Sincerely Yours,


Judah Mae D. Oliamot
Project Manager

Noted by:


Mr. Greg Baldove
Adviser

Approved by:


Dr. Aurora C. Miro
Dean

Appendix B

Research Environment



Figure 89: Map of the Research Environment

Appendix C

Survey Questionnaire

Where do you usually buy products for your pets?

- Online
- Physical Store

Which of the two choices do you find more hassle when it comes to buying pet products?

- Online
- Physical Store

Which do you think sells cheaper products?

- Online
- Physical Store

Which of the two is more time-consuming considering buying pet products?

- Online
- Physical Store

Do you find looking for services a hassle?

- Yes
- No

Do you think that it is easy to find pet services online?

- Yes
- No

Have you tried making a reservation in pet centers (whether in physical store or online)?

- Yes
- No

Which do you prefer of the two when making a reservation in pet centers:

- Online reservation
- Walk-in reservation

Which of the two ways is more time-consuming when booking in a pet center?

Online

Walk-in

Do you prefer receiving a coupon reward after donating in pet organizations?

Yes

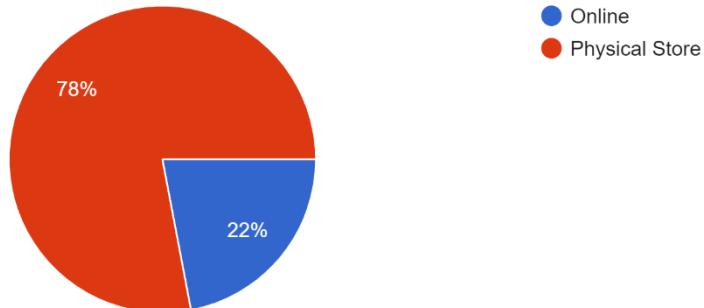
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Appendix D

SURVEY RESULTS

Where do you usually buy products for your pets?

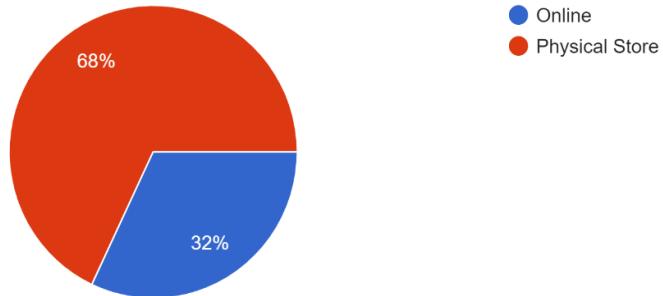
50 tugon



In the survey, physical store garnered 78% while online store only got 22%. It's been found out that most of the respondents usually buy pet products online than in physical stores.

Which of the two choices do you find more hassle when it comes to buying pet products?

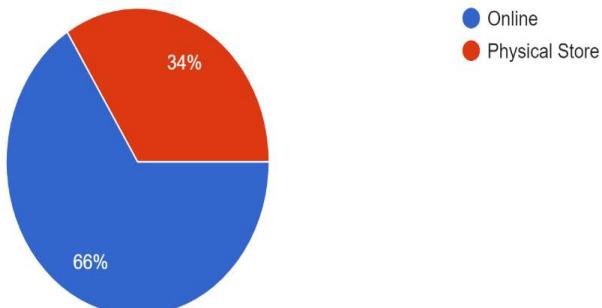
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Based on the result of the survey, it's been shown that most of the respondents find it more hassle to buy pet products in physical stores as it garnered 68% compared to online stores which got only 32%.

Which do you think sells cheaper products?

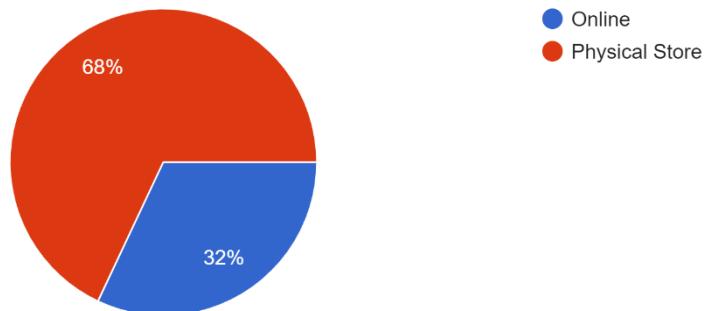
50 tugon



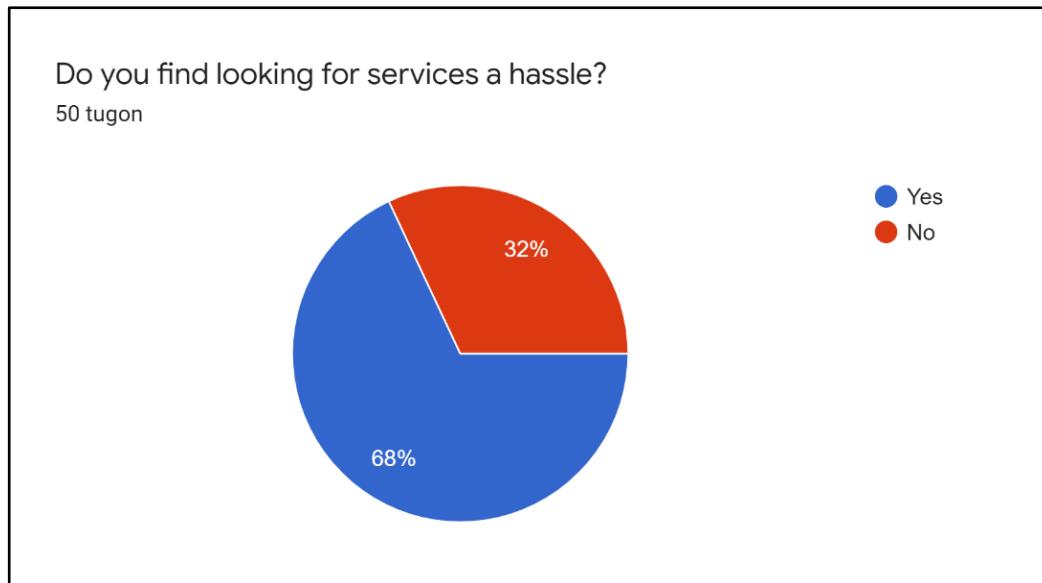
The survey tells us that many of the respondents think that online stores sells cheaper products than physical stores. The percentage of each choice explains it all. Physical store got only 34% while online store got 66%.

Which of the two is more time-consuming considering buying pet products?

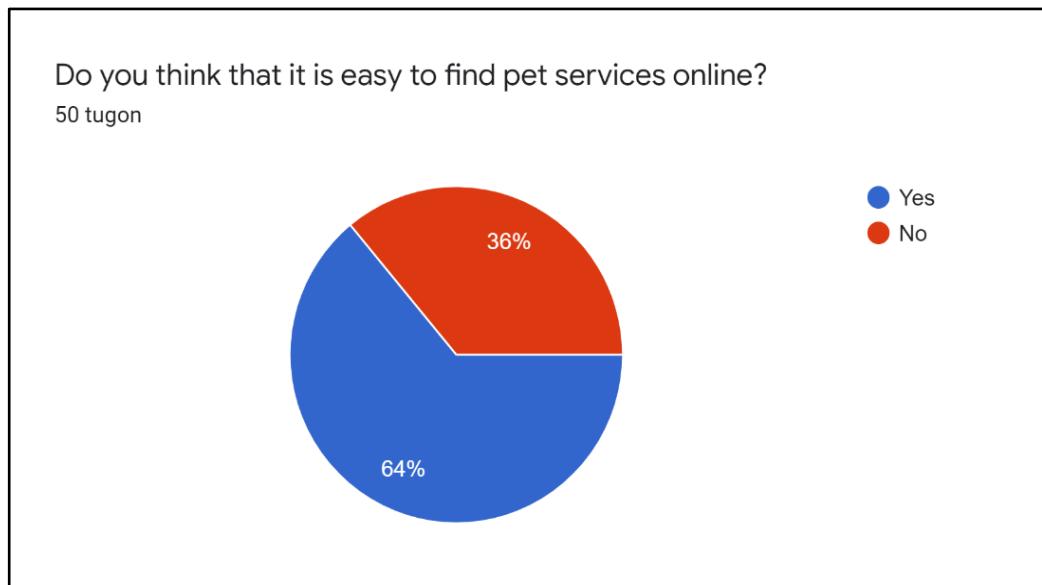
50 tugon



The percentage tells us that the respondents who are the customers believe that in buying pet products, physical store consumes more time than online store. The former earned 68% while the latter garnered only 32%.

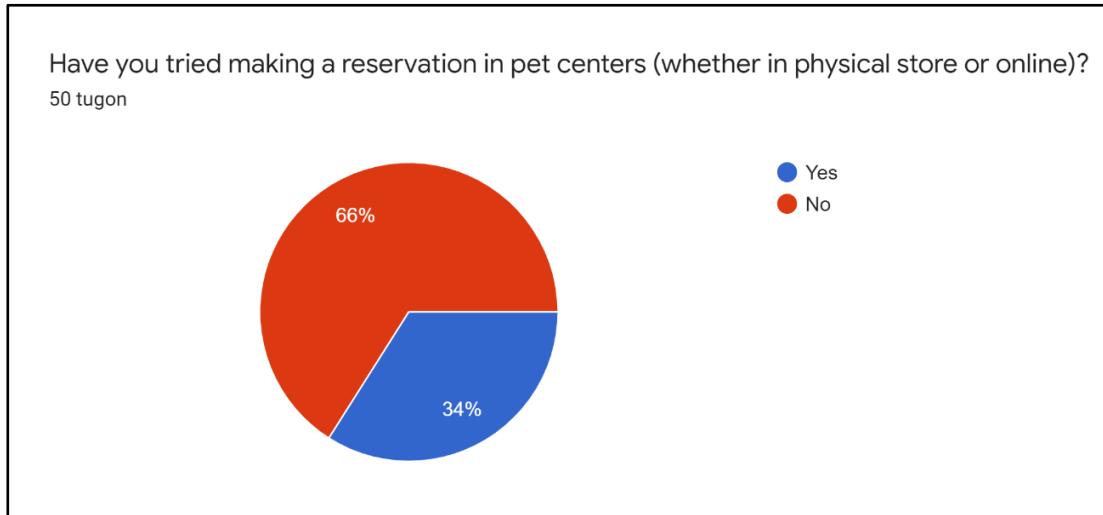


Basing on the result of the survey, 68% of the respondents answered YES when asked if they find looking for services a hassle to their part. On the other hand, the remaining 32% answered NO.

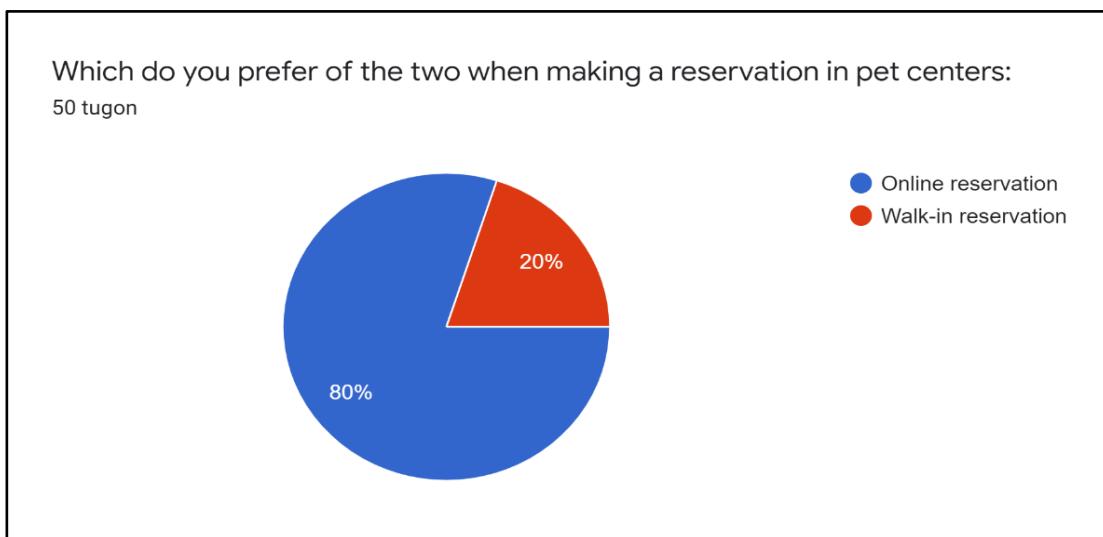


It's been shown in the survey result that 64% of the respondents answered YES. This means that they find it easy to look for pet services online. On the other note, 36% of the respondents answered NO, which means the other way around.

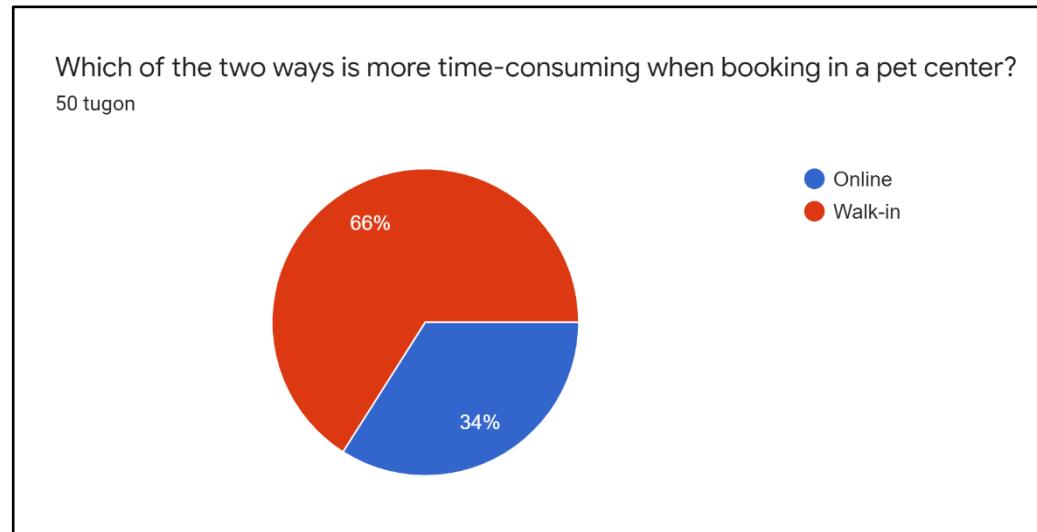
The result shows that 66% of the respondents answered YES, which means that they have already tried making a reservation in pet centers, while the 34% answered the other way around.



The latter simply means that they haven't tried yet to make a reservation in pet centers whether in physical store or online store.



Based on the survey result, 80% of the respondents prefer making online reservation in pet centers. The remaining 20% prefers walk-in reservation.



The result shows that most of the respondents consider booking in a pet center online is more time-consuming than walk-in. The former garnered 34% while the latter garnered 66%.



In the survey, 81.3% of the respondents answered YES while 18.8% answered NO. This means that the former prefers receiving a coupon after donating cash in pet organizations. The latter on the other hand, prefers not to.



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		COLLEGE OF COMPUTER STUDIES	
SCORE	DECISION	COLLEGE/DEPARTMENT	
95	Pass	COLLEGE/DEPARTMENT	
PLAGIARISM: 3% - Pass		NAME & SIGNATURE (URSO)	

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