

# **BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

A Capstone Project  
Presented to the Faculty of the  
College of Information and Communications Technology  
Bataan Peninsula State University  
Main Campus

In Partial Fulfillment of the  
Course Requirements in  
Bachelor of Science in Information Technology  
Major in Network and Web Application

**By:**

Dinio, Davilyn F.  
Ilao, John Vincent S.  
Lazo, Rolando Q.  
Mendoza, Marissa P.

FEBRUARY 2022

## APPROVAL SHEET

In partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology major in Network and Web Application, this thesis entitled, **Bataan Online Pet Breeding Management Portal**, has been prepared and submitted by Davilyn F. Dinio, John Vincent S. Ilao, Rolando Q. Lazo and Marissa P. Mendoza who are recommended for oral examination.



**Cherry A. Collera, PhD**  
Thesis Adviser

Approved in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology major in Network and Web Application by the Committee on Oral Examination



**Cristina G. Rivera, MSCS**  
Chairman



**Jiselly L. Solomon**  
Member



**Mark Enric R. Cadeliña, PhD**  
Member

Approved in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology major in Network and Web Application.



**Cristina G. Rivera, MSCS**  
Dean

College of Information and Communications Technology

FEBRUARY 2022

## **DEDICATION**

I would like to dedicate this thesis to our Almighty God who provides the source of strength, wisdom, knowledge, and understanding throughout this process in every aspect of my life. To my parents, relatives and friends who are always there to support and guide me in everything I do. To our thesis adviser, Ms. Cherry A. Collera I want to say thankyou for all of your effort in guiding us to finish this thesis and unconditional support for our study. You are also the reason why we did not give up because from the beginning to the end you are with us to help our group to finish this thesis. To my co-researchers, Marissa Mendoza, John Vincent Ilao and Rolando Lazo, thank you for all hardships and for didn't giving up until the end.

**Davilyn F. Dinio**

I would like to dedicate this thesis to all my mates, for their unfathomable support and for sticking together in facing difficulties to make this research successful. We encounter lots of challenges in making this but we manage to stay and face it together. I would also like to dedicate this to our professor, Ms. Cherry Collera, for trusting and believing in us since day one. For still responding to our concern even though it is not class hour. We are really grateful for your guidance and for making it possible for us to finish this thesis

**Marissa Mendoza**

I would like to dedicate this thesis to our Almighty God who gives us strength, intelligence, and grace in our daily needs. And to my lovely parents who never get tired of supporting me in what I want, especially to my friends, relatives and to my girlfriend that supports and motivates me to continue this journey. I am very grateful to my group mates for continuing to work hard for us to succeed in our thesis. And I just want to dedicate this thesis to our thesis adviser Ms. Cherry Collera for tirelessly helping, teaching and checking our documents and system to make sure that we make progress.

**John Vincent S. Ilao**

I dedicate this thesis to my parents for their support within this journey. To my friends that cheers me up and to those people who believed in us that this would be successful. It was really hard since I am also a working student. I know we need to focus on making this thesis so it needs a lot of time. That is why I am also thankful to my group mates for understanding and for long patience. I also dedicate this thesis to Ms. Cherry Collera, for guiding us and for keeping in touch with us just to check if there's an update with our research.

**Rolando Allan Q. Lazo**

## **ACKNOWLEDGEMENTS**

First and foremost the researchers would like to praise and thank the Almighty God for the shower of blessings throughout their research work and for making this successful. They also appreciate their parents' love, prayers, care, and sacrifices in teaching and preparing them for the future. For understanding them and in continued support to complete this research project. And a special thanks to those friends who showed interest in completing their research successfully.

They would like to express their sincere gratitude to their research professor, Ms. Cherry Collera for guiding them throughout this research. Working and studying under her direction was a great honor and privilege. Her vision, genuineness, and motivation have left a lasting impression on them which they are extremely grateful for what she offered on them. They also want to thank Dr. Job Rafael M. Venturina, DVM for allowing them to have an interview with him and gather information that will help them in the implementation of their thesis.

Last but not least, they would like to express their deepest appreciation to their university, Bataan Peninsula State University- Main Campus, for letting them develop themselves, allowing them to discover their abilities and giving them a chance to reach their goals in life.

## **ABSTRACT**

The Bataan Online Pet Breeding Management Portal is a web portal which changes the experience of the pet breeders in seeking for other pet breeders. It was developed to provide a web portal that helped pet breeders and pet owners to look for other nearest pet breeders in Bataan. Through the use of Portal, pet breeders and other users have better access in finding what they are looking for specifically what breed of cats and dogs. Users can communicate too or socialize with other users, they can post pictures of pets, make an announcement and are capable of viewing the pets information including the health background. Lastly, users can be notified according to the status of the breeding and can give feedback to the web app. The portal requires the internet, mobile phone or desktop to use the system. Bataan Online Pet Breeding Management Portal was evaluated using ISO 25010 with its (8) main quality characteristics: functionality suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability. The target respondents are fifty (50), with thirty-nine (39) pet owners, ten (10) pet breeders, and one (1) veterinarian among them. The researchers had a system demonstration and then they sent google forms to fill out by the respondents and give an opinion about the system. After getting all the responses of 50 respondents, the overall mean of Project Evaluation is 4.49 with descriptive interpretation as "Very Good".

## Table of Contents

<b>PRELIMINARIES</b>	<b>Page</b>
Title Page	i
Approval Sheet	ii
Dedication	iii
Acknowledgments	v
Abstract	vi
Table of Contents	vii
List of Table	ix
List of Figures	x
 <b>Chapter 1- INTRODUCTION</b>	
Background of the study	1
Objective of the Study	3
Scope and Limitations	4
 <b>Chapter 2- CONCEPTUAL FRAMEWORK</b>	
Review of Related Literature and Studies	6
Conceptual Model of the Study	21
Operational Definition of Terms	23
 <b>Chapter 3- METHODOLOGY</b>	
Project Design	25
Project Development	39
	vii

Operation and Testing Procedure	45
Evaluation Procedure	49
<b>Chapter 4- METHODOLOGY</b>	
Project Description	51
Project Structure	52
Project Capabilities and Limitations	60
Test Results	61
Project Evaluation	73
<b>Chapter 5 - SUMMARY OF FINDINGS CONCLUSION AND RECOMMENDATION</b>	
Summary of Findings	81
Conclusions	83
Recommendations	84
<b>Bibliography</b>	
Appendices	92
RESEARCHER'S PROFILE	176



## LIST OF TABLES

Table 1.0 : Users	36
Table 2.0 : Messages	37
Table 3.0 Breed	38
Table 4. Test Script Form	49
Table 5. Likert's Scale	50
Table 6. Creating Account Test Script	62
Table 6.1 Fill out the Pet Information Test Script	63
Table 8. Posting and Making Announcement Test Script	65
Table 9. Comment Section Test Script	66
Table 10. Message Test Script	67
Table 11. Choose pet breed and method of breeding Test Script	69
Table 11.1 2D mapping Test Script	70
Table 12. Notification Test Script	71
Table 13. Feedback Test Script	72
Table 14. Evaluation of Software Quality: Functional Suitability	74
Table 15. Evaluation of Software Quality: Performance Efficiency	75
Table 16. Evaluation of Software Quality: Compatibility	75
Table 17. Evaluation of Software Quality: Usability	76
Table 18. Evaluation of Software Quality: Reliability	77
Table 19. Evaluation of Software Quality: Security	77
Table 20. Evaluation of Software Quality: Maintainability	78
Table 21. Evaluation of Software Quality: Portability	79
Table 22. Summary of Project Evaluation	79

## LIST OF FIGURES

Figure 1. Conceptual Model of the Study	22
Figure 2. Context Diagram	27
Figure 3. Level 0 Diagram	<b>Error! Bookmark not defined.</b> 8
Figure 4. Child Diagram of Viewing the Pet Owner Profile and Pet Profile	31
Figure 5. Child Diagram of Choose Breeding Method Species and Locate the Nearest Pet Breeding	32
Figure 6. Child Diagram of Notify the Pet Owner about the Status of Breeding	32
Figure 7. Entity Relationship Model	34
Figure 8. Modified Waterfall Model	40
Figure 9. Gantt Chart	44
Figure 10. Login	53
Figure 10.1 Sign up	54
Figure 10.2 Pet Information	55
Figure 11. Pet Profile	55
Figure 12. Newsfeed	56
Figure 13. Comment Section	56
Figure 14. Messages	57
Figure 15. Breeding Process and Locating using 2D Mapping	58
Figure 16. Notification.	59
Figure 16 the notification page shows the notifying the users about the status of breeding through a notification bell.	59
Figure 16.1 Rating	60

# **Chapter I**

## **INTRODUCTION**

Every day, individuals use technology in many ways, it is becoming in demand yet affordable. Discovering that IT is effective in solving complicated problems and functioning an enormous number of operations and functions that an individual cannot do. In addition, technology has been used in completing tasks that lead to data freedom and enhanced reliability (Erpinnews, 2017).

The American Animal Hospital Association (AAHA) is an organization that opposes pet breeding that could risk the main objective of breeding causing the animal suffering. In which AAHA supports the existing and future initiatives to ensure the breeding and care of service animals in breeding facilities, as well as providing breeders with best-practice guidelines. (AAHA, 2016).

According to Ward (2021), breeding is a form of sexual reproduction that results in the development of offspring. It can only happen when a male and a female animal meet together. Many pet owners find their pet's companionship for reasons; to breed, to maintain the bloodline, and to keep the offspring of their pet. While for the first time pet owners, they tend to acquire female pets and breed when they are old enough.

Zooeasy is a software used by every pet breeder. Users can choose an animal and can read all the special features from the registration of the animals. This application helps to improve the breeding results and keep track of all the

animal data in the online database, through this software all the data of the user is accessible anytime and anywhere (Zooeasy, 2021).

The main problem of the study was to develop and implement a Bataan Online Pet Breeding Management Portal that is capable of locating the nearest pet owner and pet breeder. The study sought answers on how the pet owners, pet breeder, and veterinarian gained an account to use the system, how the users can view the pet profile, how the users can post and view announcements, how the users can comment to the other users post, how the users can communicate in the system, how the pet owners can filter its preferred breed and find easy way to locate breeders and pet owners, how the pet owners and pet breeders will be notified about the breeding status, how pet owners and pet breeders can give feedback to pet breeders about the breeding process.

The Developed Bataan Online Pet Breeding Management Portal was a web portal that helped pet owners to look for other nearest pet breeders in Bataan. The system also allows the users to create an account, to communicate with other users, post pictures of their pet and pet adoption, announcements for pet events and can comment to the user post/, capable to view the pet's information including the health background, users can also be notified according to the status of the pet breeding and can give feedback for the breeding process.

## Objective of the Study

The main objective of the study is to develop and implement a Bataan Online Pet Breeding Management Portal that is capable of locating the nearest pet owner, allows the users to communicate with another pet owner, post pictures of their pet and announcements for pet events.

Specially, the study aims to:

- Design a Web Portal that is capable of:
  - a. Creating an account for pet owners, pet breeder and veterinarian through filling out a form about the user information and pet information;
  - b. Allowing the users to view the pet's information including health background via visiting the pet profile page;
  - c. Allowing the admin and users to post and view announcements related to pet breeding and pet adoption through clicking the newsfeed;
  - d. Allowing the users to comment on other user posts through the comment section.
  - e. Allowing the user to communicate with other users through message box;
  - f. Allowing the users to choose a pet breed and method of breeding that they wanted through filling up form and can locate a nearest pet owners using 2D mapping;

- g. Notifying the users about the status of breeding through a notification bell; and
  - h. Allowing the users to give feedback through a rating page where both the breeders can give feedback on how the breeding stage goes on both sides.
- Creating a system using Visual Studio Code, Adobe Dreamweaver, Photoshop 2019, Firebase and Windows OS 10, as a software requirement and computer system and router as hardware requirements.
  - Test and improve the system in terms of functional suitability, maintainability, usability and compatibility.
  - Evaluate the performance of the system based on ISO 25010 characteristics such as functional suitability, maintainability, usability, performance efficiency, compatibility, reliability, security and portability.

### **Scope and Delimitations**

The study covered Bataan Online Pet Breeding Management Portal that focuses on locating the nearest pet breeders. Through this system it helps the pet breeders to see the development of the pet through the portal for pet breeding.

The web portal only caters domesticated dogs and cats. The pet owners and pet breeders can only give the feedback. The system is capable of locating

nearest pet owners and pet breeders that are only in Bataan. Only the admin has the access to ban and delete or filter the inappropriate comments from users post. Only veterinarian can approve the background history of pets.

The developer used the required software suitable for the system. The developed system used Visual Studio Code for coding backend and frontend, Adobe Dreamweaver is for user interface Checking, Photoshop 2019 for graphics creation and Windows 10 as its operating system and a Firebase as a database management. At the same time, a computer system such as a desktop and router that has the required hardware and a working browser should also be provided.

The developed system was evaluated with the use of ISO 25010 with its (8) main quality characteristics: functionality suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability. The proponents interviewed fifty (50) individuals as respondents. The target respondents are composed of one (1) veterinarian, ten (10) pet breeders and thirtynine (39) owners of pets like cats and dogs.

## **Chapter 2**

### **CONCEPTUAL FRAMEWORK**

This chapter includes discussion of information related to the topic and studies aligned to explain the development of the study. All the information is gathered from the electronic sources, books and journals. This also helped the readers to fully understand the study and the definitions of terms used for a better comprehension.

#### **Review of Related Literature and Studies**

##### **Pet Breeding**

Freeman (2017) discussed the animal breeding or pet breeding objectives in terms of changing the genetic population of the animal. It is normally not a simple job to choose breeding targets and plan a successful breeding program. The number of generations needed to achieve the initial targets complicates the execution of a breeding program. In the end, retail demand determines breeding goals; however, it is difficult to forecast what customers desired several years in advance.

In addition, Roper (2016) discussed pet breeding for beginners in a breeding dog. It should be taken seriously, with a focus on identifying everything about the principles of dog breeding. Genetics, health checks, estrus and gestation



periods, whelping dogs, and care for newborn puppies are both included. Breeding a dog and carrying on the rituals of the owner's beloved breed can be very rewarding, but a conscientious breeder must follow those guidelines.

Lastly, aaha.org (2016) explained that pet breeding for cats and dogs may not endorse the highest level of animal welfare and breeding goals. Animal neglect caused by ineffective breeding practices, overcrowding, unnecessary or insufficient human activity, improper sanitation, inadequate shelter, food, or water, or a lack of veterinarian oversight may be reported to local animal cruelty prevention associations.

Overall, pet breeding was used in the study to improve the developed system and to identify the importance of breeding. Using pet breeding it can help the pet owners to remove the undesired traits of their pet and this has served as a guide for all the pet breeders.

### **Pet Breeding Management**

Davidson (2020) discussed the pet breeding management for dogs and cats. Admire that the dog female can be bred naturally, or be artificially inseminated using fresh, chilled and shipped, or frozen-thawed semen. Dogs had a limited number of breeding and may need to prioritize the female dog for the timing of ovulation. Vaginal cytology is the one factor for the timing of ovulation and they also had three types of vaginal epithelial cells: Parabasal cells, Intermediate cells and Superficial cells. In addition, boy cats are called tom, when

the queen shows the sign of estrus it should be taken to tom. And the breeding area should be familiar to the tom, quiet, and allow for monitoring thus allowing for good footing and minimal contact. If a cat's health is in danger, the courtship should not be interrupted. Queens roll and groom during breeding, while toms have been known to mate until they are physically drained. It would prevent the tom from remounting for a while.

In addition, Gardiner (2019) explained the Breeding Management with four phases of canine estrous cycle are (1) proestrus, (2) estrus, (3) diestrus and (4) anestrus. Proestrus and estrus are commonly called "heat" or "season". Bitch targets the male dogs during proestrus, the first stage of the estrous cycle, but it is not interested in reproduction. The vulva is mildly swollen and turgid, with a blood-tinged vaginal discharge (of uterine origin). The vaginal cytology is changed over a period of 4 to 7 days. Gardiner discussed what happened after the breeding and the examination that needed before the breeding.

Lastly, [veteriankey.com](http://veteriankey.com) (2016) discussed the breeding management in what procedure that needed after the breeding happened. Before the breeding both dogs could also have a full medical test to rule out any health issues that could concern the adult dogs, disease problems that could affect the pups, and physical anomalies that would prevent breeding or whelping. If there is a question about the consistency of the male's sperm, a physical test and semen assessment should be done at least two months before breeding. In addition, it is also discussed the test that has been done like in vaginal cytology.

Overall, pet breeding management was used in the study to identify the pet breeding processes and procedures to have a successful breed. And it can help the breeders to determine the types of breeding.

### **Online Pet Breeding**

bestfriend.com (2019) stated that puppy mills, kitten mills, bird mills, bunny mills, and other commercial mass-breeding operations are thought to account for over 90% of pets sold in pet shops and via online sales. Every year, these large-scale breeding operations add more animals to the national pet population than are killed in shelters, making them one of the most important contributors to shelter populations.

In addition, MDPI (2020) If more Australians buy companion dogs online, state and territory governments face the task of ensuring that online purchases comply with local regulations. They analyzed 1735 unique advertisements for dogs and puppies on Gumtree, one of Australia's most common trading sites, using web scraping techniques, and benchmarked levels of microchipping, desexing, and breeder identification numbers in each state and territory.

Lastly, Animal Care & Control (2019) Animal shelters sell a lot of purebred animals, so if an individual is looking for a specific breed, it would almost definitely find it on the website. Almost all purebred dog breeds have their own rescue groups. It is easy to read online or by requesting a referral from the shelter. Scan the rescue as if it were a breeder to ensure that the animals are treated humanely, are medically controlled, and have good temperaments.

Overall, Online Pet Breeding was all about using the web in searching for other breeds of pets like dogs and cats, and adopting the pets. And to help another breeder to find their companion.

### **Pet Breeding Portal**

thedrakecenter.com (2021) Pet Portals are private websites where a user can get online access to the pet's health records. Vetstreet.com, a website devoted to pet wellness and education, provides free Pet Portal accounts to all Drake Center customers. Accounts for Pet Portal are stored on a stable server. This ensures that other users would not be able to see the users personal details.

In addition, wellingtonvet.com (2021) Pet Portals are a safe interactive connection to knowledge about your pet's health care from the clinic. It's made to make it easier for the clinic to keep track of the owner's pet's welfare.

Lastly, qld.gov.au (2020) New animal care standards and guidelines went into effect on October 1, 2018, for anyone who owns a dog that is pregnant or gives birth to a litter. An investigation and fines which will be imposed if a dog owner or breeder fails to comply with the new requirements. If people breed dogs in Queensland, pet owners must follow these animal welfare guidelines and register with the Queensland Dog Breeder Register as a dog breeder.

Overall, a pet breeding portal serves as a gateway for application. This has been used in the developed system to have easier and better access to the users.

### **Database Management System**

Raza (2018) stated that Database Management System (DBMS) refers to the solution for technology that is used in managing storage and retrieving of information in databases. In order to manage the databases, DBMS offers a systematic approach which is an interface for users and apps. DBMS facilitates the information within the database, the process it uses, specifically accessing and modifying and lastly the database logic structure.

In addition, Desai (2019) explained that Database Management System is a software used to manage databases where it allows the users in data definition, updation, retrieval and user administration. He also stated that there are several types of DBMS and these are some of the common DBMS; (1) Hierarchical Database, (2) Network Databases, (3) Relational Databases, (4) Object-Oriented Databases, etc.

Lastly, Panwar (2020) stressed that Database Management System is a software that is designed to manage databases such as storing and organizing data in which that data can be added, updated, and deleted using queries and algorithms.

To sum up everything that has been stated, the database management system helped the system in arranging all the gathered information about the pet breeders and pets like cats and dogs.

## **Web Programming**

John (2018) stated that web programming is also known as web development and it is a dynamic web application. The main languages of the

modern website are the HTML and CSS, they work together to have a detailed encoding of the constructive design process. He also said that for someone who does not have experience in programming and graphical coding could be slightly difficult in approaching the concept of translating text into visual and aesthetic design of types that is seen on the web.

According to Letendart (2018), web programming is the maintenance and building of the website which happens behind the scene that makes the website look better, work fast and perform well for the users. He also added that developers use a variety of languages depending on the tasks they are working on.

Furthermore, Techopedia (2021) explained that web programming is the writing, markup and coding involved in web development. it is different from just programming, it requires interdisciplinary knowledge on the application area, scripting, database technology and in client and server. Techopedia also added that in client, the programs needed are related in accessing the data and providing information while in server side, the programs needed are mostly related in data retrieval, security and performance.

To sum up, web programming helped in creating and in designing the front end such as registration form, dashboard for users and admin, the profile information of every user and other user interface in the project. And also in the backend such as validation of inputs from the user registration process, storing data and fetching of users data in the database of the developed system.

## **2D Mapping**

According to Autodesk.help (2017), 2D maps are two dimensional images that are used in environmental mapping which create a background of the scene or mapped onto the surface of a geometric object. It also stated that the simplest 2D maps are bitmaps while the others take more procedure to do.

Based on crescentflightops.com (2019), the key component for 2D mapping or Orthomosaics is data collection, it is a collection of a thousand of pictures which are combined together to create a map and a high definition of aerial pictures. It also stated that it helps you in making a rapid decision for it gives a real-world view. In fact, using 2D mapping is the best way to show off campus and property in frame, specifically companies and organizations that have large campuses such as schools, amusement parks, boat dealerships etc.

Furthermore, aerizone.com (2020) clarified that 2D mapping is made of unmanned drones, which gathers geo-tagged images. From the gathered images, a produced data of 2D topographic came up extracting images from the information. It is the most used tool as well as the 3D mapping, it gives a communicative answer for administration owner, idea making, building management utilizing models of estate or property.

Overall, 2D Mapping was used on the developed system that helped the pet owners in finding the nearest pet breeders.

## **ISO 25010**

Agrey (2020) added that the ISO/IEC 25010 is an international standard for evaluating the quality of software and services. Provides a new paradigm for evaluating consistency enterprise resource planning (ERP) programs based on the ISO/IEC 25010 with the addition of three new sub-factors. This latest model will be used to help higher education agencies choose and implement ERP programs. Functional suitability, durability, flexibility, performance quality, compatibility, protection, maintainability, and portability are all considerations in the new model. There are thirty-four (34) sub-factors among these eight consistency factors. As a result of this research, a model for evaluating the quality of ERP systems in HEIs has been created.

In addition, Rebes (2019) cited the ISO 25010 as a perfect framework for defining essential software indicators for a project. It is not a full, descriptive map, but rather a guide that a user can use when required. ISO 25010 helps them to measure the quality of software development in the process and can evaluate the system using the ISO 25010. It will have 8 characteristics (1) functional suitability, (2) Performance efficiency, (3) compatibility, (4) usability, (5) reliability, (6) security, (7) maintainability and last is portability. And it will also have a sub characteristic.

Moreover, Codacy (2021) cited the software quality model defined by ISO 25010 standard with code quality frameworks to describe the code quality characteristic and decomposition. The ISO/IEC 25010 was launched in 2011. It is enterprise software development and the software quality is divided into two broad dimensions: product quality and quality in use. All characteristics of ISO 25010 had a sub characteristic for the product quality decomposition.



To summarize, the proponents used ISO 25010 in evaluating the performance of the developed system based on functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability.

### **Breeder Cloud Pro**

Breeder Cloud Pro (2021) stated that Breeder Cloud Pro is a kennel management solution designed to help businesses handle workflows, documents, pets' information, finances and more. Administrators can use the centralized dashboard to view upcoming dog litters, active dams, kennel visitors, yearly income and scheduled appointments.

Both systems are web-based systems for dogs; it can view the pet's profile including health background. And the system can help the pet breeder to communicate with the other pet breeder. Also, users can post pictures and announcements about dogs. Breeder Cloud Pro is a software for dog breeding & kennel management with easy access from any device, appointment reminders and more. While the developed system was a web portal that helped the breeder to look for the nearest pet breeders in Bataan. It can also give feedback for the Web app.

### **Dog Breeder Pro**

Hansen et al. (2019) stated that they created the first version of Dog Breeder Pro in 2003 as a Windows desktop application, and gave it away for free

to more than 5,000 breeders. They agreed to restore Dog Breeder Pro as a web application in 2015 to bring it into the modern era.

Both systems are Web-based software, and it does not require installing anything. It is also usable on Windows, and smartphone or tablet. In which users can create/manage their profile and also the pets' profile.

In Dog Breeder Pro it can handle advanced dashboards, calendar integration (Outlook, Google Calendar, etc.), email updates, income, cost tracking for consumers and generate medical reports. Organize them into a waiting list. Create pedigrees that are fully customizable, including the customer's own color scheme and logo. It also creates an infinite number of pedigrees. Maintain your waiting list information, such as contact information, preferred breed, preferred sire/dam, gender, restricted or full registration, allergies and notes.

While the developed system was a web portal in which it assists the pet breeder to look for the nearest pet breeders in Bataan. It can also communicate to the other pet owners and allows the users to post announcements and give feedback to the breeding process.

## **Zooeasy**

According to [zooeasy.com](http://zooeasy.com) (2021), stated that zooeasy is the software for every animal breeder. Choose an animal and read about all special features for the registration of the owner's domesticated pet. This application helps to improve breeding results. Keep track of all the animal data in the online database, through this software, all of the user's data is accessible anytime and anywhere.

Both systems allow users to create a username and password to access the system and secure all the confidential information. It also allows them to find the best yet nearest companions for the owner's pets. Online databases are available in all devices allowing management of the user's data anytime and anywhere. The developed system only focused on breeding cats and dogs. Zooeasy manages every type of animal breeder.

## **Software Requirements**

In developing the system, the proponents used Microsoft Windows 10 as the operating system, Visual Studio Code used for developing web portal, Adobe Dreamweaver for the web design, Adobe Photoshop CS6 used for creating and editing images for web and Firebase as the back-end for the web system.

### **Microsoft Windows 10**

Bigelow (2021) cited that Windows 10 is a Microsoft operating system that will be used in PCs, laptops, etc. Microsoft is launching a new full-fledged software as a successor, it will aim to upgrade Windows 10 with the support of mobile device management (MDM) software, corporate IT departments will protect and monitor Windows 10-running smartphones. And the other conventional device management tools, such as Microsoft System Center Configuration Manager, could also be included. Recognize that Windows 10 has system requirements for

processor, RAM, hard disk space, graphics card, and display. The updates and upgrades for Windows 10 are available.

The developed system used Windows 10 as a workshop. This is to improve the process and to have a reliable and stable operating system. Through this the group were able to have a seamless work in programming.

### **Visual Studio Code**

Plainer (2021) verified that Visual Studio Code is a free and open-source development platform. Plainer collaborated as an extra programmer on Visual Studio Code for the last few months after doing extensive research that was documented and analyzed. This essay presents and discusses the outcomes of this involvement, with an emphasis on open-source development and best practices. The most important Plainer's represent the efforts and devote a significant portion of the report to an overview of the project's internal framework.

Consequently, the developed system used the most convenient IDE for the project. The group came up with the Microsoft Visual Studio Code for it is lightweight since it can run low-end devices with minimal bugs and lags and has a user-friendly Interface.

### **Adobe Dreamweaver**

Surahmat et.al (2019) cited that in designing an exquisite web, for normal people it definitely looks difficult that requires a large amount of effort and for those

who already learned media using multimedia has the advantage and can see the results immediately. From the form of a website display a learning media will be displayed and through the help of Photoshop CS6 and Adobe Dreamweaver application the users can easily make web displays and also create websites without direct contact with the programming language.

In understanding every method in web design techniques, multimedia-based learning aims to facilitate students.

The study used Adobe Dreamweaver for designing the user interface of the system.

### **Photoshop CS6**

Panjaitan et.al (2020) cited that Photoshop is one of the most used editing software by designers to produce better quality images. Factors that influence learning abilities in using Photoshops are teacher's competence, learning facilities and environment, motivation, and learning models used. In learning Photoshop, it is compulsory to make exquisite learning media. One of the techniques used in creating a learning application is Computer-Based Instruction. This applies an interaction between human and computer in creating an interesting design, aside from this it can serve as motivation to learn Photoshop for it can help users understand and increase user enthusiasm and motivation.

In other words, the proponents used Adobe Photoshop CS6 in creating logos and editing images that served as the background of the web system.

### **Firebase**

According to Smyth (2017) in 2014 Google completed the purchase of Firebase Inc., a San Francisco-based organization that offers a wide variety of developer tools for integrating cloud-based features into smartphone and web applications. Google merged the services offered by Firebase with a range of complementary capabilities previously available as part of Google Cloud Platform after acquiring the company. The combined features from the two platforms are what is now known simply as Firebase.

In conclusion, the proponents used Firebase to manage the authentication and data storage. This helped them to come up with a better quality of the system.

## **Hardware Requirements**

The hardware requirements include the computer unit and router.

## **Computer Unit**

edu.gcfglobal.org (2021) discussed the computer as an electronic system used to process data. It can store, retrieve, and process information. The user may also be aware that a device can be used to type notes, send messages, play games, and search the Internet. It also allows editing and building spreadsheets, slides, and images. Provide the cited types of computers and the various parts of a computer include system unit, mouse, computer case, monitor, keyboard, etc. And it discussed the hardware and software of the computer.

The proponents used the computer unit in creating and testing the functionalities of the developed system. The proponents used the computer unit for making the documentation and it for the designing of a developed system.

## **Router**

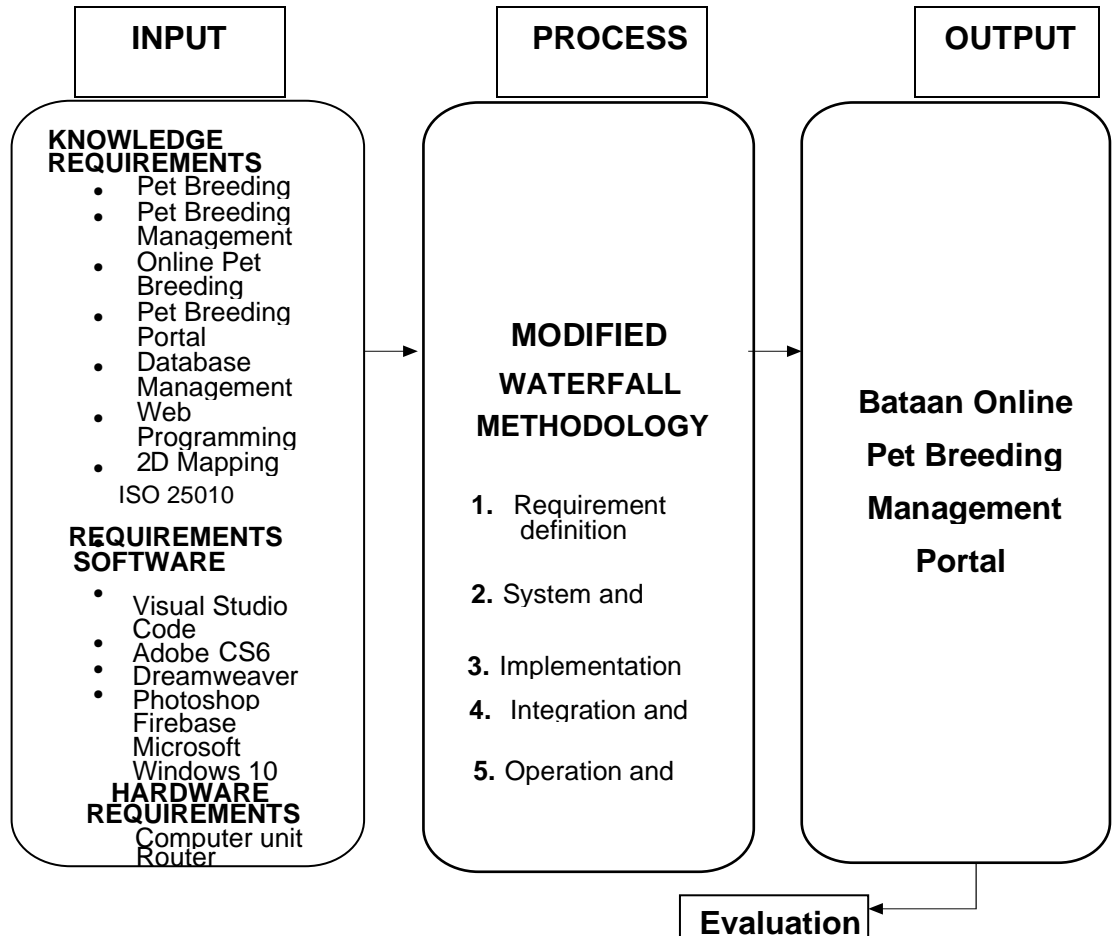
computerhope.com (2019) cited that the router is a hardware device that will be used to receive analyzes, and forward incoming packets to another network. It can also be used to convert packets to a different network interface or IP address, drop, and execute other network-related tasks. It will have a different type of router: the router and wireless router which is commonly used at home. And also have five types of router that will be used in a large network: (1) wireless router, (2) Brouter, (3) Core router, (4) edge router and (5) virtual router.

To summarize, the router used in connecting the internet to run the developed system. The proponents also used the internet for searching, documentation and citation of the study.

## **Conceptual Model of the Study**

According to airbrake.io (2017) the conceptual model is a representation for the ideas and the system that are used for concept, which is used to help people enhance understanding of the represented model. It is a software development life

cycle referred to as a domain model that can be used to represent the relationships of entities within a database.



**Figure 1.** Conceptual Model of the Study

Figure 1 represents the conceptual model of the study which includes four phases namely Input, Process, Output and Evaluation.

The input phase includes knowledge requirements, software requirements and hardware requirements used to develop the system. The knowledge requirements consist of Pet Breeding, Pet Breeding Management, Online Pet Breeding, Pet Breeding Portal, Database Management, Web Programming and 2D Mapping. In addition, Visual studio Code, Adobe Dreamweaver, Photoshop



2019, Firebase and Windows 10 are the software requirements. And lastly, the hardware requirements consist of a computer unit and router.

The process phase shows the Waterfall Methodology which the proponents had observed during the development of the system. The Modified Waterfall Methodology includes five (5) phases namely Requirement Analysis, System Design, Implementation, Verification and lastly, Maintenance.

The output phase is the result of the input and the process phase combined which is a Bataan Online Pet Breeding Management Portal. The final phase is Evaluation.

### **Operational Definition of Terms**

The following are terms that are operationally defined for better understand the study:

**Bataan Online Pet Breeding Management Portal** – is a web portal system that improves the process of pet breeding in Bataan to locate nearest pet breeders.

**Bataan** – refers to the location of the study.

**Inbreeding** - refers to mating pets in close relatives or bloodline.

**Crossbreeding** - refers to mating between different breeds of pets.

**Pet Breeder** – refers to a person that permits another pet breeder to produce a breed.

**Find Breed** - refers to different kinds of breed.

**Show off-** refers to display the pet image

**Celebration-** refers to national pet day or pet birthday.

**Trade -** refers to the pet that wants to exchange their pet.

## **Chapter 3**

### **METHODOLOGY**

This chapter presents the project design, database design, project development, the operation and testing procedures.

#### **Project Design**

The Developed Bataan Online Pet Breeding Management Portal aims to help pet breeders and pet owners to seek for the nearest pet breeders or pet owners. The developed system can manage the users information including the pet of the users through the use of a database. The system gives access to the pet owner and pet breeders to choose the type of breeding that they want. The project also gives access to the users to post about pets and announcements of the event and can also allow them to comment on the post of the other users. The users can also communicate with their fellow users to answer all questions. The system also provides 2D mapping that shows the nearest location of pet breeders or pet owners. In addition, the system provides a notification bell that shows the status of breeding. The pet owners and pet breeders can contribute to the improvement of the breeding process by giving feedback.

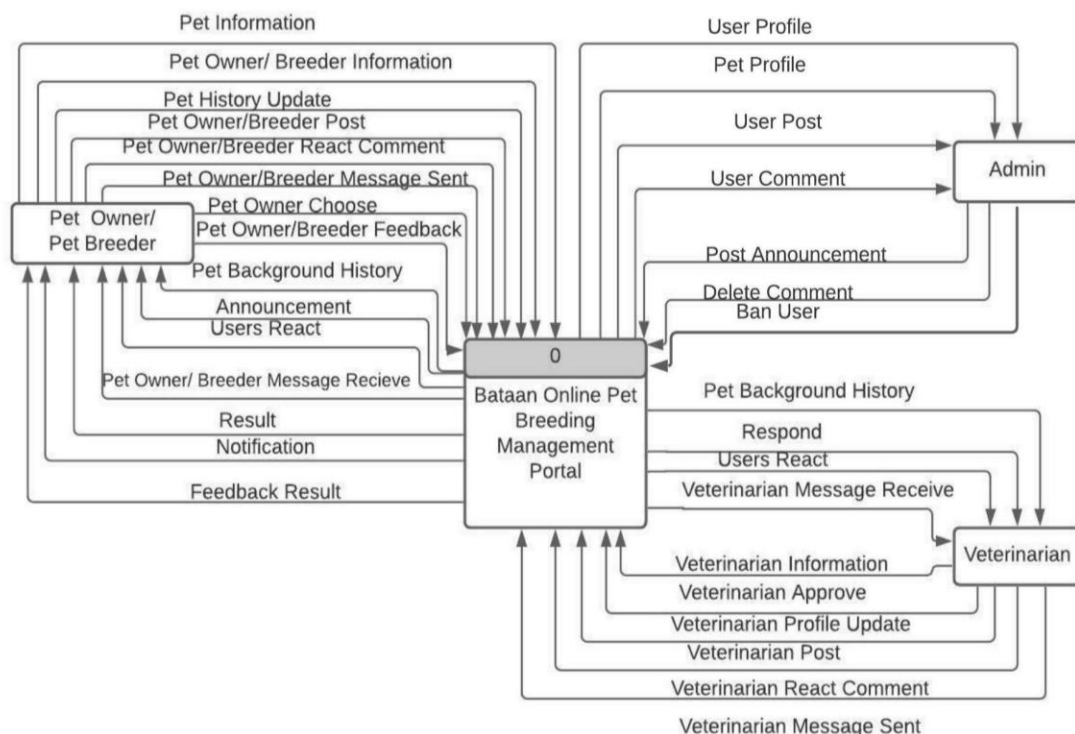
#### **Data Flow Diagram (DFD)**

visual-paradigm.com (2020) stated that Data Flow Diagram (DFD) is a graphical representation of the flow of the information in a system. DFD shows the

process in the system from transferring data to the input going to the storage and reports generation. There are two types of data flow diagrams: logical and physical. The logical data flow diagram depicts the flow of data through a system in order to execute specific business functions. The physical data flow diagram depicts how the abstract data flow is implemented.

## Context Diagram

According to [edrawmax.com](https://www.edrawmax.com) (2021), Context Diagram is a specialized version of Data Flow Diagram (DFD). It shows the information flows from the system and to the external components. It is a common method among Business Analysts who use it to decipher the specifics and limits of a project's framework to be built. It highlights the knowledge flow between the system and its external components. It is also a diagram that is included in a project's specifications text.



## Figure 2. Context Diagram

Figure 2 displays the Context Diagram. This shows the process of the system. The context diagram contains three entities : Pet Owner/ Pet Breeder, Veterinarian, and Admin. It illustrates how the developed system can flow between the three entities. First, pet owners and Pet Breeders can give information to create an account, and they can fill out the form for the pet/s . It also allows them to upload pictures of the pets. Pet owners and Pet Breeders are allowed to post and they can comment on the other user post. It also allows the pet owners and breeders to choose what type of breeding method and what species for breeding they wanted. Pet owners and breeders can send a message to the other user and will also allow them to give feedback after the breeding happened. Then, the veterinarian in which they can create an account to log in the system and the veterinarian is the only who can verify the background history of the pet. Veterinarians can communicate with users via chat if the users have a question about the pet and it can allow posting or announcement about the pets. Finally, the admin can monitor the post and comment of the users. The admin has only access to banning the users and deleting inappropriate comments from the users post. Admin can view the pet profile and users profile of the users and also allow the admin to post and announce about the system.

## Level 0 Diagram

Bangerter (2021) explained that the most simple data flow diagrams are Level 0 DFDs, also known as context diagrams. They provide a general overview that is easy to understand, but they don't go into great detail. A single process node and its relations to external entities are depicted in Level 0 data flow diagrams.

**Figure 3.** Level 0 Diagram

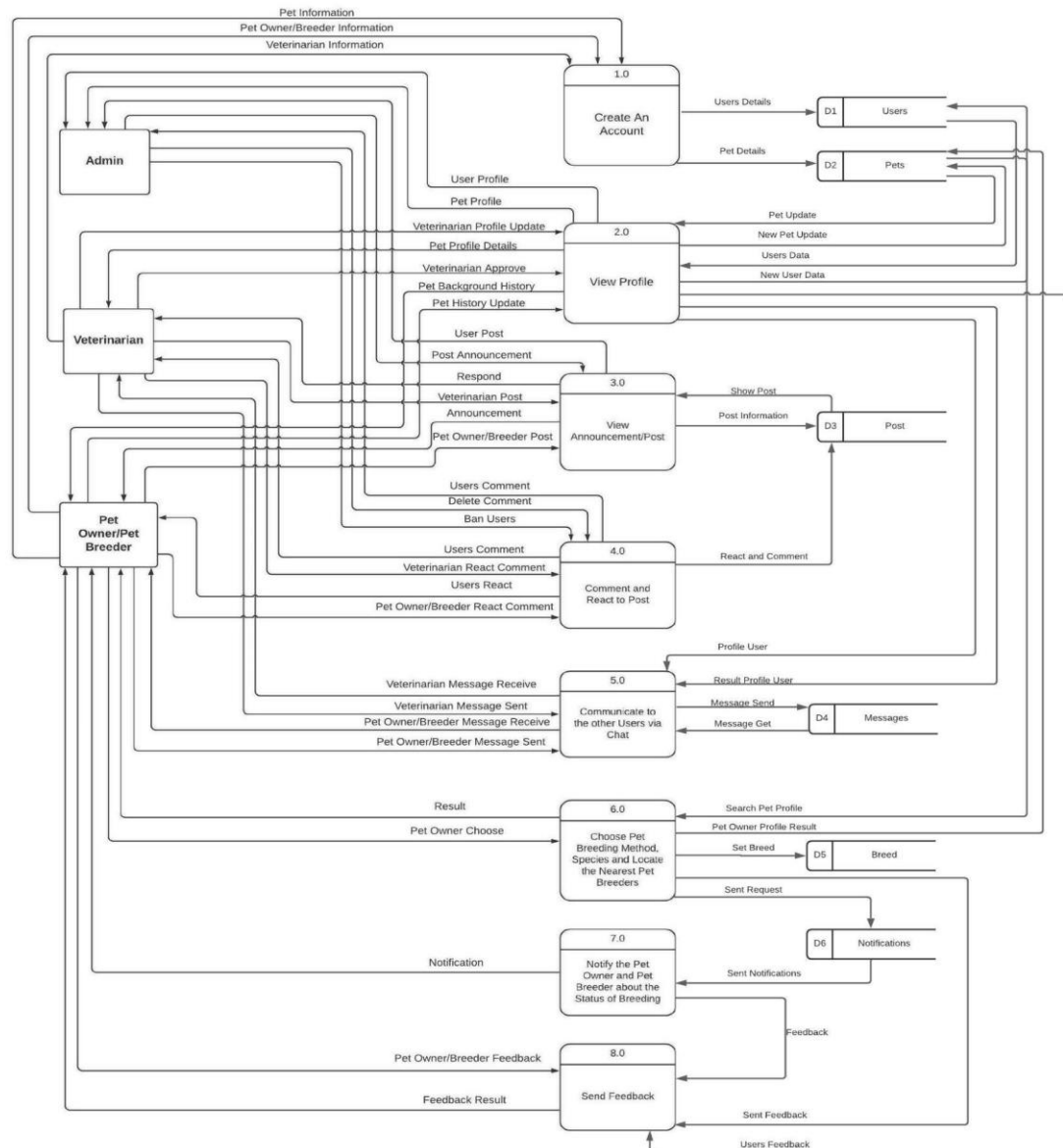


Figure 3 displays the level 0 diagram. Level 0 diagram contains three entities: Pet Owner/Pet Breeder, Veterinarian, and Admin. There are eight capabilities shown in the diagram: create an account, view profile, view announcement/post, comment and react to post, communicate to the other pet breeders via chat, choose pet breeding method species and locate the nearest pet breeders, notify the pet owner about the status of breeding, and send feedback.

In creating an account, the pet owners, pet breeder and veterinarian will fill out the form to verify their account if it is legit.

In the view pet owner profile, the four entities have the ability to view the profile of other users including their pets. The Pet Owner, Veterinarian and Pet Breeder have the ability to edit their profile.

For viewing announcements/posts, the pet owners, pet breeders, veterinarian and admin can view the users posts and announcements about the pet breeding. And the users are also allowed to post and comment on the post of the other users, also the pet breeders, pet owners and veterinarian can report the post if it violates the rule of bataan online pet breeding management portal.

In react and comment to post, the pet owners, pet breeders and veterinarian have an ability to react and comment to the post shown in newsfeed. The admin also is allowed to post an announcement about the system.

When it comes to communication, the system has a chat page to communicate with fellow pet breeders, pet owners and veterinarians.

In choosing a pet breeding method and species, there is a choice needed to fill in such as the kind of pet and its breed and the method that the pet breeder wanted to be used. After the pet owners and pet breeders fill it up it would locate the nearest pet owners and pet breeders in bataan.

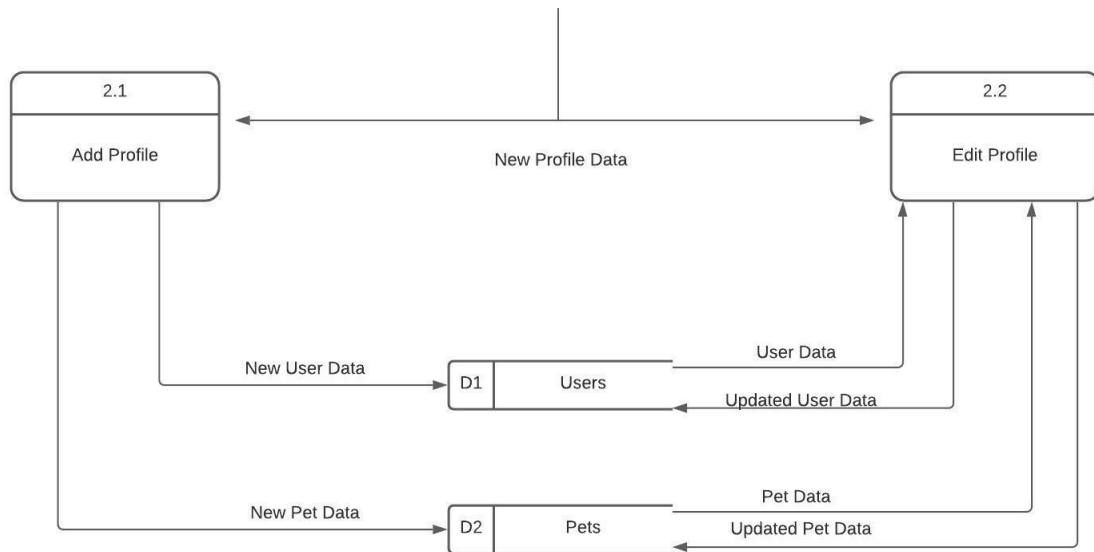
In order to notify the pet breeder and pet owner about the status of breeding, after the process of pet breeding the system would notify the pet owner about the status of the breeding that the pet owner chose.

In sending feedback, after the process of breeding, the feedback form would be shown for the pet breeders to rate.

## **Child Diagram**

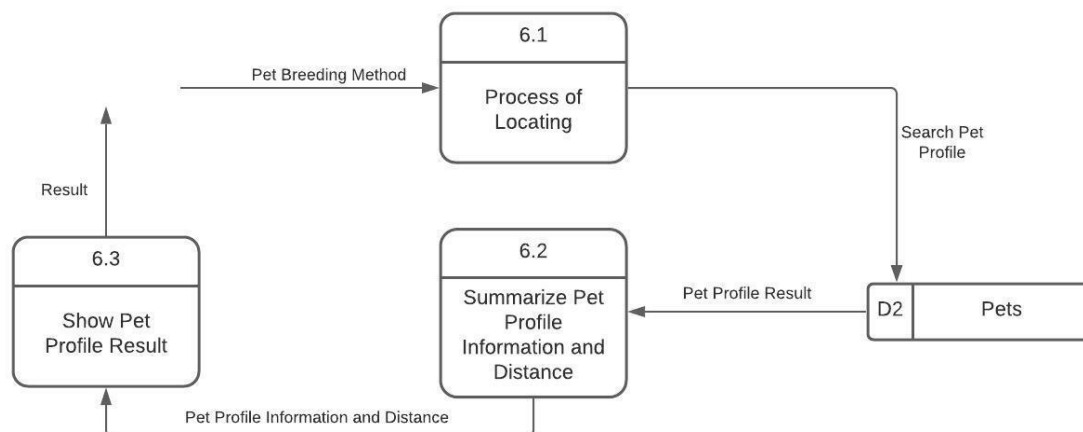
w3computing.com (2021) cited the child diagram as presenting the same number as its parent process. The parent process number, a decimal point, and a unique number for each process table should be used as a number for the phases on the child diagram. The child diagrams below Diagram 0 are normally devoid of entities.





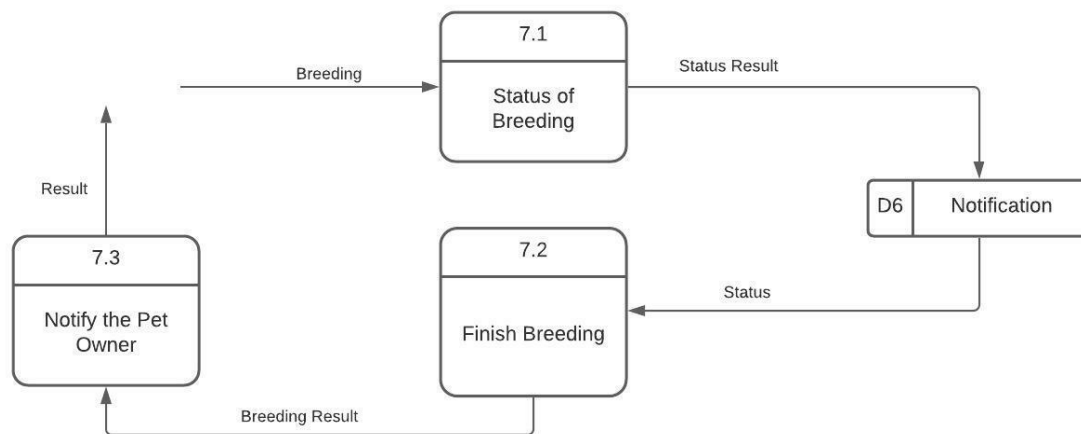
**Figure 4.** Child Diagram of Viewing the Pet Owner Profile and Pet Profile

Figure 4 consists of the child diagram of viewing the pet owner profile, pet breeder profile, veterinarian and pet profile that shows the capabilities of add profile and edit profile. After creating an account the pet owners, pet breeders, and veterinarians have the ability to add information and edit it in the profile.



**Figure 5.** Child Diagram of Choose Breeding Method Species and  
Locate the Nearest Pet Breeding

Figure 5 displays the child diagram of choosing breeding method species and locating the nearest pet breeding. After choosing the pet breeding method and species the system would locate the nearest pet owner. After the system gets all the pet profiles it would show the result of the chosen pet breeding method, species and the profile of the pet owner.



**Figure 6.** Child Diagram of Notify the Pet Owner about the Status of  
Breeding

In figure 6, it displays the child diagram to notify the pet owner about the status of breeding. After the breeding process the pet owner would notify the other pet owner if the breeding process is successful or unsuccessful.

## **Database Design**

Database design contains an Entity Relationship model and data dictionary used in the developed system. Some of the major tables in the diagram are; User Information, and Pets Information.

### **Entity Relationship Model**

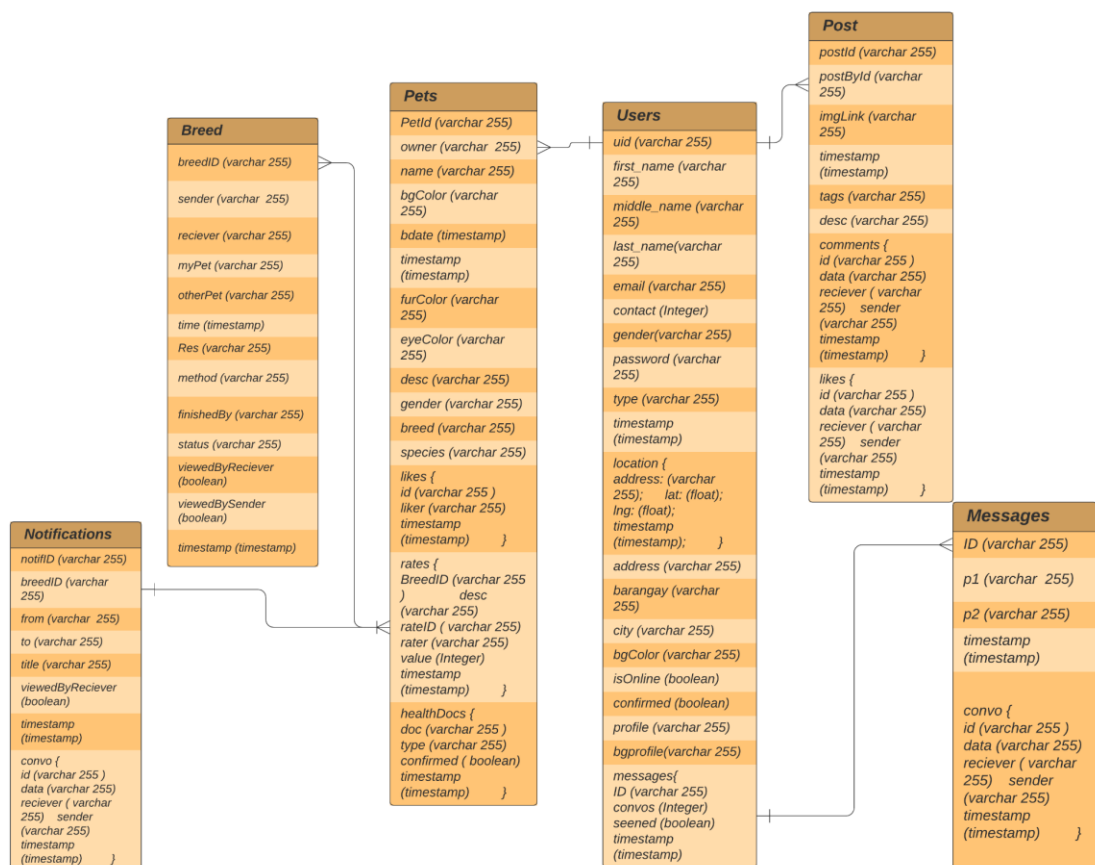
Biscobing (2021) explained the entity-relationship diagram (ERD), also called an entity-relationship model, is a graphical representation of relationships between persons, things, locations, ideas, and events in an information technology (IT) environment. An ERD is a relational database that uses data processing techniques to help describe business processes and act as the basis. The entity

relationship diagram is useful for grouping data that can be interpreted by a relational structure and it is inadequate for semi-structured or unstructured data.

**Figure 7.** Entity Relationship Model

Figure 7 above shows the entity relationship model of the Bataan Online Pet Breeding Management Portal. It displays six database tables used in the web application and each table will store different data.

The users table contains the users information in the system. The primary



key of users table is uid and contains a first\_name, middle\_name, last\_name, email, contact, gender, birthday, password, type, address, barangay, city, bgColor,

isOnline, confirmed, profile, bgprofile and messages included the ID, convos, seened and timestamp. The post table has a primary key postid and contains postByid, imgLink, timestamp, tags, desc, comments and like. The message table has a primary key ID and contains p1, p2, timestamp and convo of the users. The pet table has a primary key Petid and contains owner, name, bgColor, bdate, timestamp, furColor, eyeColor, desc, gender, breed, species, likes rates. The breed table has a primary key breedID and contains sender, receiver, myPet, otherPet, time, Res, method, finishedBy, status, viewedByReceiver, viewBySender and timestamp. The notification table has a primary key notifID and contains breedID, from, to, title, viewedByReceiver, timestamp, and users convo.

The users table is connected to the post table to post and give an announcement about the pet breeding. Messages table is also connected to users table to allow them to communicate with other users. The Breed table is connected to the pets table to help the users to find a breed that they wanted . And the notification table also is connected to the pets table to to know the status of breeding.

## **Data Dictionary**

Meador (2018) stated the data dictionary, the description, or information about the database is stored. The data dictionary is crucial because it includes details such as what is in the database, who has access to it, and where the

database is physically located. The data dictionary is typically not used by database users; it is only handled by database management.

**Table 1.0 : Users**

Data Dictionary				
System Name : Bataan Online Pet Breeding Management Portal				
Subject : Users				
PK	FK	Field Name	Data Type	Description
Yes	No	uid	Number	Users ID
	No	first_name	String	Users name
	No	middle_name	String	Users middle name
	No	last_name	String	Users last name
	No	email	String	Email
	No	contact	Number	Contact Number
	No	gender	String	Gender
	No	password	String	Users Password
	No	type	String	Type of Users
	No	timestamp	timestamp	time
	No	address	String	location
	No	lng	timestamp	time
	No	timestamp	timestamp	time
	No	barangay	String	Barangay
	No	city	String	City

	No	bgColor	String	Background Color
	No	isOnline	String	Online Users
	No	confirmed	String	Users confirmed
	No	profile	Image	Users Profile
	No	bgprofile	Image	Background profile
messages				
	Yes	ID	Number	Messages ID
	No	convos	String	Users Convos
	No	seened	Boolean	Seen
	No	timestamp	timestamp	time

The table 1.0 shows the Pet Owner Profile of the Developed Bataan Online Pet Breeding Management Portal. This table stores the information of the pet owners. This table's fields are : uid, first\_name, middle\_name, last\_name, email, contact, gender, birthday, password, type, address, barangay, city, bgColor, isOnline, confirmed, profile, bgprofile and messages included the ID, convos, seened and timestamp.

**Table 2.0 : Messages**

Data Dictionary
System Name : Bataan Online Pet Breeding Management Portal
Subject :Messages

PK	FK	Field Name	Data Type	Description
Yes	No	ID	Number	Message ID
	Yes	p1	String	Users Name
	No	p2	String	Users Name
	No	timestamp	timestamp	timestamp
Convo				
	No	ID	Number	Convo ID
	No	data	String	Conversation
	No	receiver	String	Users Receive
	No	sender	String	Users Sender
	No	timestamp	timestamp	Timestamp

The table 2.0 shows the Pet Profile of the Bataan Online Pet Breeding Management Portal. This table stores the information of the pets. This table's fields are : ID, p1, p2, timestamp, ID Convo, data, receiver, sender and timestamp for convo.

**Table 3.0 Breed**

Data Dictionary				
System Name : Bataan Online Pet Breeding Management Portal				
Subject : Breed				
PK	FK	Field Name	Data Type	Description



Yes	No	breedID	Number	Breeding ID
	No	sender	String	Users Sender
	No	receiver	String	Users Receiver
	No	myPet	String	Users Pet
	No	otherPet	String	Users Pet
	No	time	time	Time
	No	Res	String	Respond
	No	method	String	Breeding Method
	No	finishedBy	String	Users name
	No	status	String	Status of breeding
	No	viewByReceiver	String	Users name
	No	viewBySender	String	Users name
	No	timestamp	timestamp	timestamp

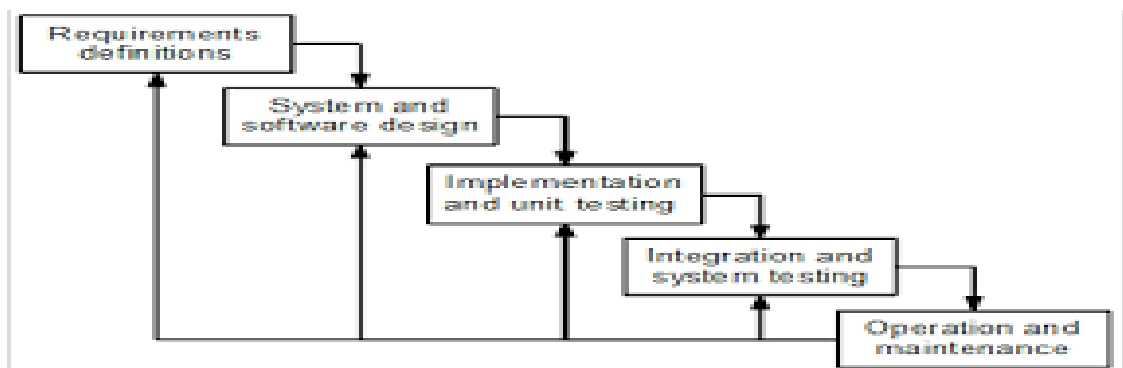
The table 3.0 shows the Veterinarian of the Bataan online pet breeding management portal. This table stores the veterinarian information. This table's fields are : breedID, sender, receiver, myPet, otherPet, time, Res, method, finishedBy, status, viewedByReciever, viewBySender and timestamp.

### **Project Development**

softwaretestinghelp.com (2021) explained that the Waterfall model is a sequential model. The software development process is divided into phases in this model, with each phase consisting of a set of tasks and goals. The SDLC

processes started with the waterfall model. It was, in reality, the first commonly used model in the software industry.

The developed system adopted the Modified Waterfall model because in Waterfall it is sequential for it is divided into stages, with one phase's output being the input for the next phase. And before moving on to the next phase, each phase must be completed. The construction of one process begins only after the completion of the previous phase in a waterfall design. As a result of this, each step of the waterfall model is extremely precise and well described since the phases descend from a higher to a lower stage.



**Figure 8.** Modified Waterfall Model

Retrieved-from:[http://moodle.autolab.uni-pannon.hu/Mecha\\_tananyag/szoftverfejlesztési\\_folyamatok\\_angol/ch03.htm](http://moodle.autolab.uni-pannon.hu/Mecha_tananyag/szoftverfejlesztési_folyamatok_angol/ch03.htm)

## Requirements Definitions

Simplilearn (2020) stated that Requirements Analysis is also known as Requirements Engineering. Requirements analysis, also known as requirements engineering, is a method for determining a new product's needs and expectations. It entails constant contact with the product's stakeholders and end-users to identify priorities, address disputes, and record all of the product's main specifications.

In the requirement process, the researchers gathered the required data for the system implementation and also the user's requirements. The researchers also collected information about the process of pet breeding. The researchers conducted a virtual interview with the Veterinarian as well as the pet breeders. And the researchers analyzed how to develop the website.

## **System and Software Design**

According to Odhiambo (2018), System design is the process of creating the architecture, modules, and components of a system, as well as the various interfaces between those components and the data that flows through it.

The second stage is the design stage, this is about the forms, interfaces, and design of the system that satisfies the expectation of the pet breeders. The proponents debated what the application's architecture would be and how it could be conveniently run by the consumer.

## **Implementation and Unit Testing**

According to opentextbooks.org (2016) System Implementation refers to the steps taken to finish the design (as needed) in the accepted systems design document, as well as test, install, and start using the new or revised Information System.

In this phase, it includes the constructing, coding, testing of the system and the schedule of the deployment of the project. One of the most crucial stages in the development of a system is the implementation. The proponents began designing according to the capabilities of the system.

### **Integration and System Testing**

Choudary (2020), stated that is a form of software testing in which individual units are combined and checked to see if they function together as intended. The primary goal of this exercise is to evaluate the interface between the modules.

In this phase, the system was tested to check whether it meets the requirements of pet breeders. If the issues are resolved, the program can be deployed. The proponents would make certain that the new system is designed to provide all of the system's functions to the intended users

### **Operation and Maintenance**

onupkeep.com(2021), cited that the operation and maintenance manual is a detailed document that contains all of the required information about an

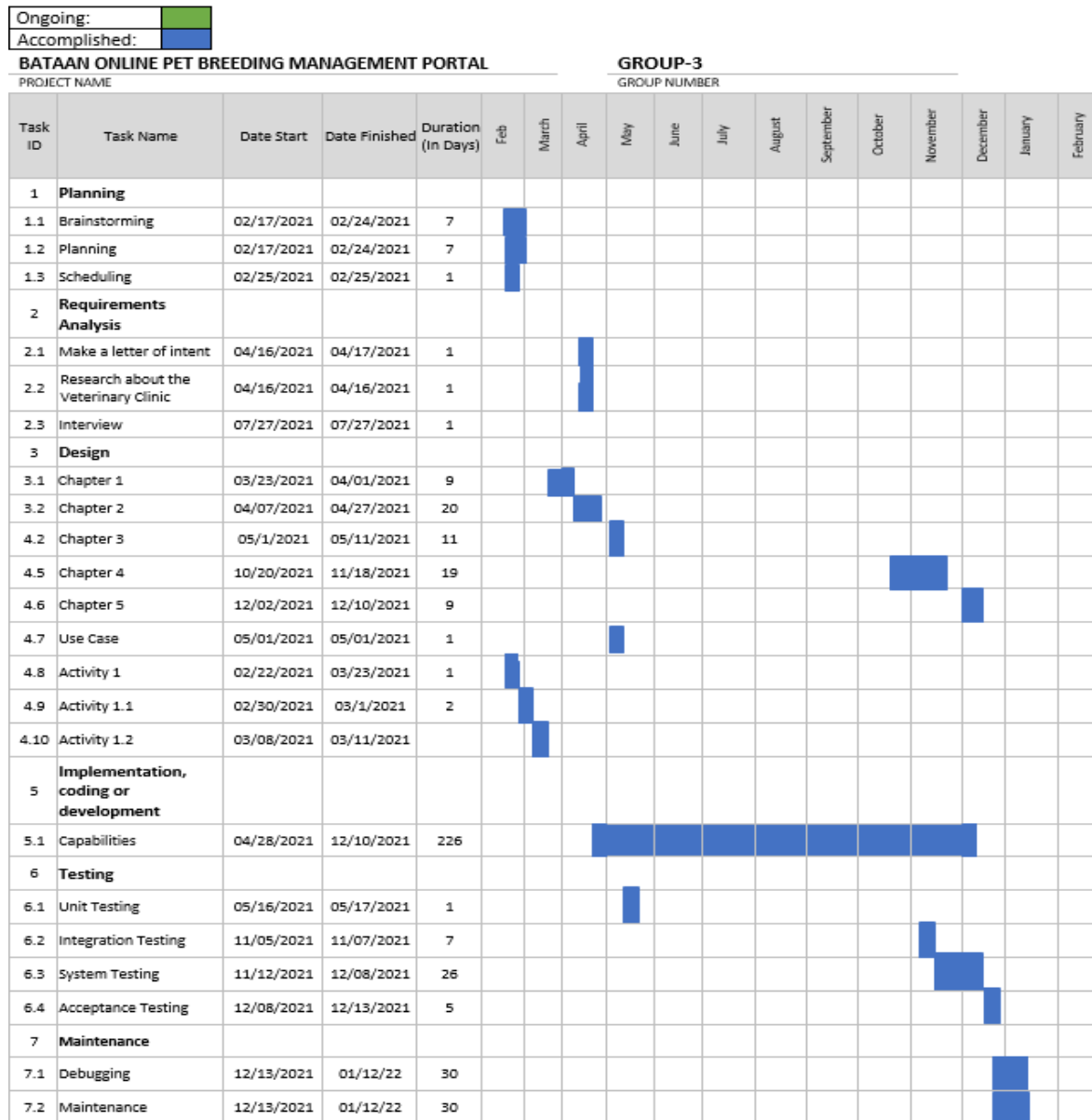
installation and maintenance as well as specific items of hardware in order to assist maintenance staff in keeping everything functioning properly.

In this stage, the proponents observe the system while it is being used by the users. From that, maintenance was implemented to check whether the site needs to be restored or whether new features can be added in the system.

### **Gantt chart**

projectmanager.com (2021) explained that the gantt chart is a helpful way to indicate what work is planned to be completed on a particular day and is used for organizing projects of all sizes. It can also be used to display a project's start and end dates in a single graph.

## Gantt Chart



**Figure 9. Gantt Chart**

Figure 9 shows the Gantt chart which listed the activities of Planning, Requirements Analysis, Design, Implementation and Testing. The system development started on February 17, 2021 and will end in February 2022. The proponents began the process by brainstorming ideas for a title or subject to

suggest. The researchers began preparing the project proposal and scheduling the construction process once the title is finalized and approved. The researchers began collecting data by conducting research on the subject and drafting a letter for a virtual interview, after which they began conducting data collection with the veterinary doctor. After gathering all of the required data, the researchers began designing the system. They start to work with the documents in order to prepare the process they would use while working with the framework. Once they have decided what to do, they begin creating the web. They perform a series of tests after completing the entire system with the Unit Testing. After brainstorming, planning and scheduling was implemented to create the system then after a lot of maintenance has been done the system is successfully working.

### **Operation and Testing Procedure**

In this section, the operation procedure and testing procedure was discussed. The different testing procedures such as unit testing, integration testing, system testing and acceptance testing were also explained.

#### **Operation Procedure**

The users need to fill out all the information in the registration form to create an account. Once the registration is successful, for pet owners they would be redirected to the welcome page to create pet profile information which is a must to fill up before getting to the main page. And the admin has the only access to ban

inappropriate posts and comment/s. If the users already have an account, they can proceed to login.

In the home page users can view the information about the system and the features of the system .In the pet owner profile page, the information about their pets, specifically cats and dogs are provided. It has been included in the system to specify the available kind of breed of cats and dogs

In locating for the nearest breeders, the user needed to choose first whether it is a dog or a cat they are looking for. Afterwards, a choice would appear to pick what preferred breed of pets the pet breeders wanted, then 2D mapping would show the result of the user's searches. The system also has a chat page for the communication of every user, if they have a question about the breeding or the transaction on breeding and the admin is also allowed to use it. During the breeding event, the pet breeders and pet owners would receive notification that shows the status of the breeding. Afterwards, the pet owners need to fill up the feedback form to know if the system is good or if it needs some changes.

## **Testing Procedure**

Testing procedure shows how the proponents performed testing using unit testing. integration testing, system testing and acceptance testing.

### **1. Unit Testing**



guru99.com (2021) stated that unit testing is a method of software testing that evaluates specific software units or components. The aim is to ensure that each unit of software code works as intended. Unit testing is carried out by programmers during the development (coding) phase of a project.

The proponents tested the system to ensure that all bugs are fixed. Unit testing is important to make sure the system would work according to the capabilities and the expectations in this system.

## **2. Integration Testing**

Fowler (2018) discussed the Integration tests are independently built software units that are related to the integration tests to decide whether they perform correctly. The aim of integration testing, as the name implies, is to see if some of the independently designed modules fit together as intended. It was done by turning on a lot of modules and running higher-level checks on them all to make sure they worked together.

In the Unit testing, the functions of the system are tested one by one. In Integration testing, the proponents tested the process if the functionality has an error and if every module meets the requirements.

## **3. System Testing**

geeksforgeeks.org (2019) stated that System testing is a form of software testing that will be carried out on an entire integrated system in order to assess the system's compliance with the corresponding specifications. It is performed on the whole system, whether in the sense of system requirements, functional

requirement specifications, or both. Device research examines the system's configuration and behavior, as well as the user's expectations.

In system testing, the proponents tested the whole system to see if all the capabilities are working well.

#### **4. Performance Testing**

guru99.com (2021) explained performance testing is a software testing method for evaluating a software application's speed, response time, durability, usability, scalability, and resource use under a specific workload. The goal of performance monitoring is to find and remove performance bottlenecks in software applications. It is a subset of performance engineering and also known as “Perf Testing”.

This is the last process of testing which will be done by the proponents and the testing does not require the internal design. In this phase, the proponents will determine the performance of the system under the load testing, stress testing, endurance testing, spike testing, volume testing and scalability.

**Table 4. Test Script Form**

<b>Date</b>			
<b>Tested By</b>			
<b>Test Case Number</b>			
<b>Test Case Name</b>			
<b>Test Case Description</b>			
<b>Item(s) to be tested</b>			
<b>Procedure steps</b>			
<b>Specifications</b>			
<b>Input</b>	<b>Expected Output/Result</b>	<b>Pass Y/N</b>	<b>Actual Result/Output</b>

### **Evaluation Procedure**

These are the following activities that the researchers performed during the evaluation.

1. The researchers had set up the system.
2. The proponents have distributed the survey form to the respondents.
3. The proponents have explained the flow of the system to the respondents.
4. The proponents have tested the system based on criteria under ISO 25010.
5. The respondents have evaluated the system performance using the survey form.
6. The proponents collected the evaluation forms from the respondents and will analyze the data collected.
7. The proponents computed the data using the weighted formula.
8. The overall rating is interpreted using the numerical range and equivalent descriptive interpretation using the Likert scale.

**Table 5. Likert's Scale**

<b>Rank</b>	<b>Numerical Scale</b>	<b>Interpretation</b>
5	4.51 - 5.00	Excellent
4	3.51 - 4.50	Very Good
3	2.51 - 3.50	Good
2	1.51 - 2.50	Fair
1	1.00 - 1.50	Poor

## **Chapter 4**

### **RESULTS AND DISCUSSION**

This chapter contains the project description, structure of the project, capabilities and limitations. This part also discusses the test results and the evaluation result of the project.

#### **Project Description**

Bataan Online Pet Breeding Management Portal is a web portal that helps pet breeders to look for other nearest pet breeders in Bataan. The developed system allows the pet breeders, pet owners, guest and veterinarian to view the pet profile of the users and to comment on the post/s. The system allows the users to communicate to other users. And also allow them to view the pet profile including the background information of the pet. Users can also be notified according to the status of the pet breeding and can give feedback for the breeding process. The target users of the projects are pet owners, pet breeders, guests and veterinarian.

The developed system provides an easy way to locate the nearest pet breeders or pet owners. With the develop system, the users are required to create an account to use the system and the pet owners need to fill out the information needed in the creation of the account. Through the use of the system the veterinarian needs to approve the history background of the pet through uploading the file. Through the use of the developed system the user's are allowed to view the pet profile of other users and enable them to communicate with each other.

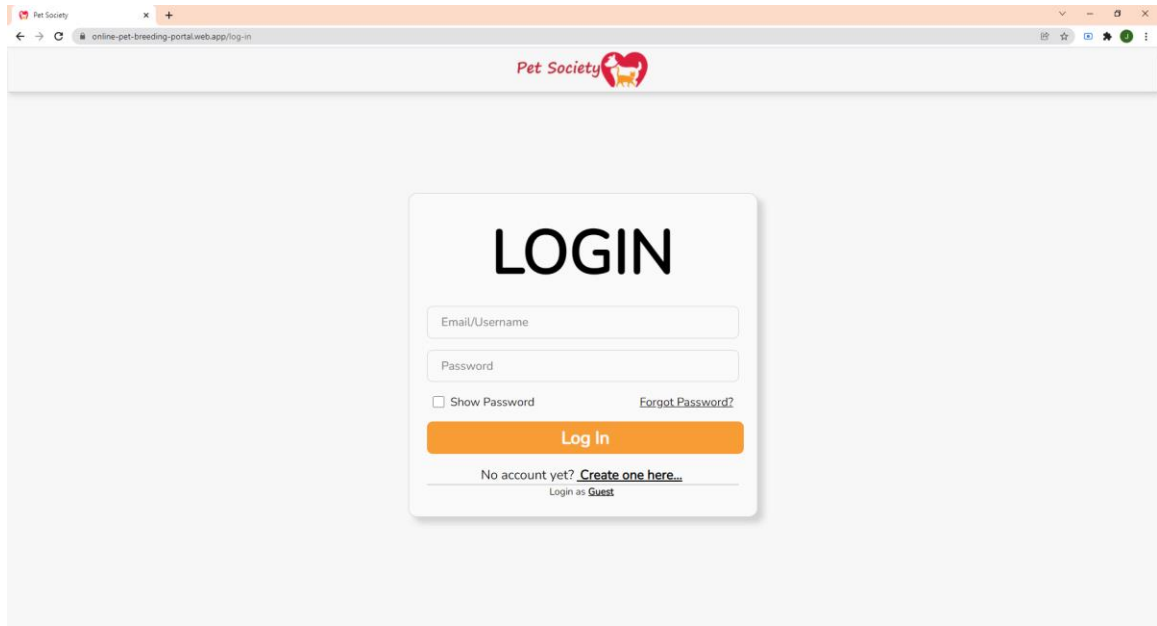
The users are allowed to post, announce, like and make comments. Using the system the admin can ban users who post malicious and use explicit words. The system can provide the notification bell to know the status of the breeding process. The pet owner and pet breeder can choose the species that they want and the method for the breeding process. And they are also allowed to give feedback for successful breeding.

The web portal only caters domesticated dogs and cats. The system is capable of locating nearest pet owners and pet breeders that are only in Bataan. Only admin can access to ban the users and only veterinarian can approve the background history of pets. The pet owner and pet breeder are only allowed to send feedback

### **Project Structure**

This part shows the major forms of the system. The main capabilities include creating an account for pet owners, pet breeder, veterinarian through filling out a form about the user information and pet information, allowing the users to view the pet's information including health background via visiting the pet profile page, allowing the admin and users to post and view announcements related about the pet breeding through clicking the newsfeed, allowing the users to comment on other user posts through the comment section, allowing the user to communicate with other users through message box, allowing the users to choose a pet breed and method of breeding that they wanted through fill uping form and can locate a nearest pet owners using 2D mapping, notifying the users about the status of breeding through a notification bell and allowing the users to give feedback through

a rating page where both the breeders can give feedback on how the breeding stage goes on both sides.

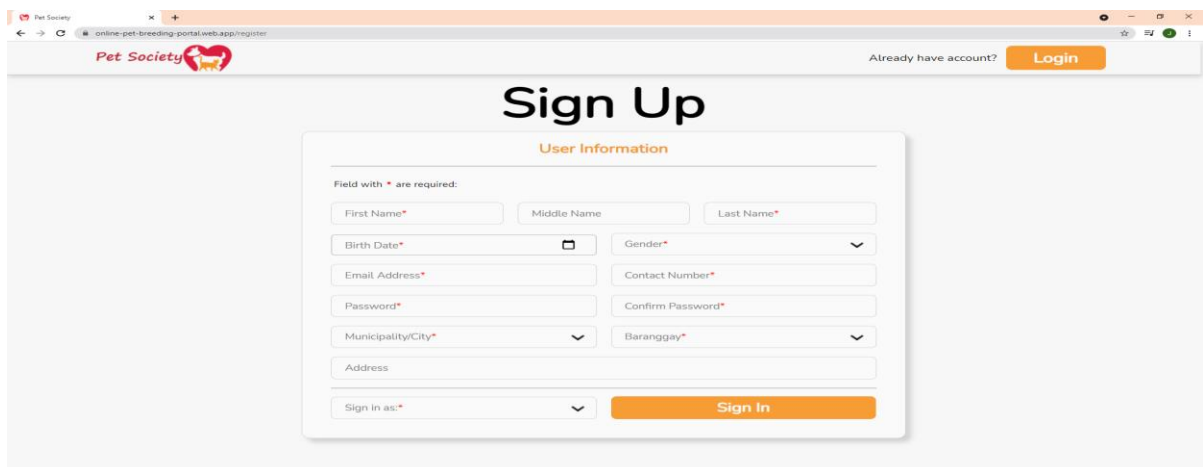


The screenshot shows a web browser window with the URL "online-pet-breeding-portal.web.app/login". The page features the "Pet Society" logo at the top. The main content is a "LOGIN" form with the following elements:

- Input field for "Email/Username"
- Input field for "Password"
- Checkbox for "Show Password"
- Link for "Forgot Password?"
- Orange "Log In" button
- Text: "No account yet? [Create one here...](#)"
- Text: "Login as [Guest](#)"

**Figure 10. Login**

Figure 10 shows the login form, the users need to enter their account before using the system.

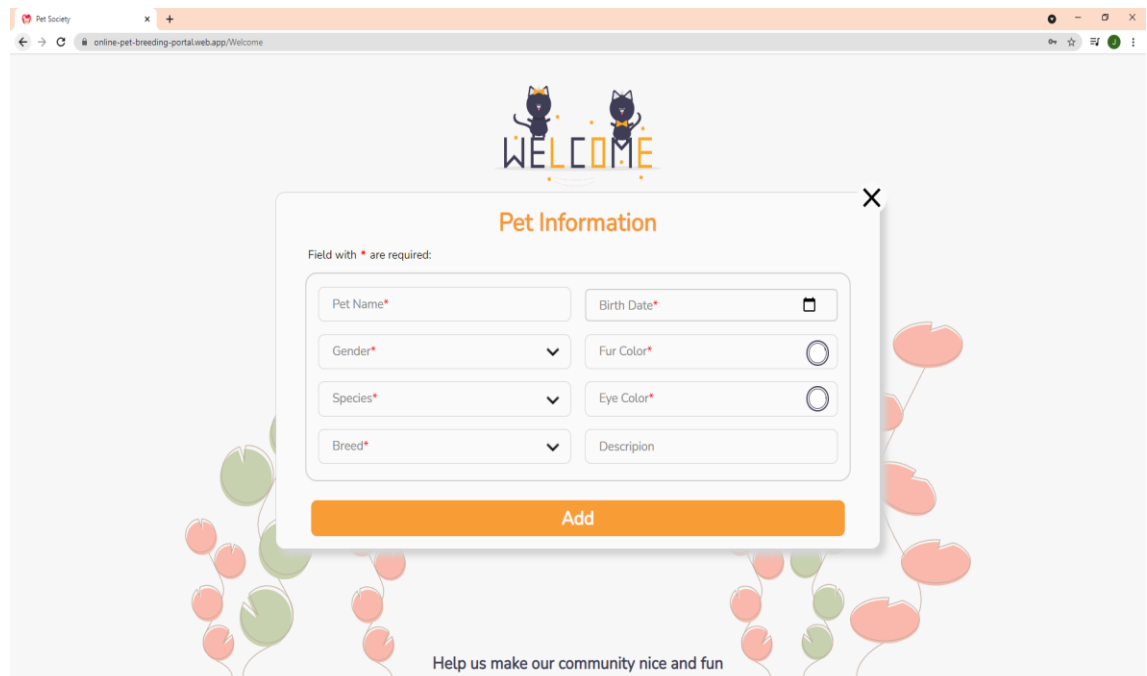
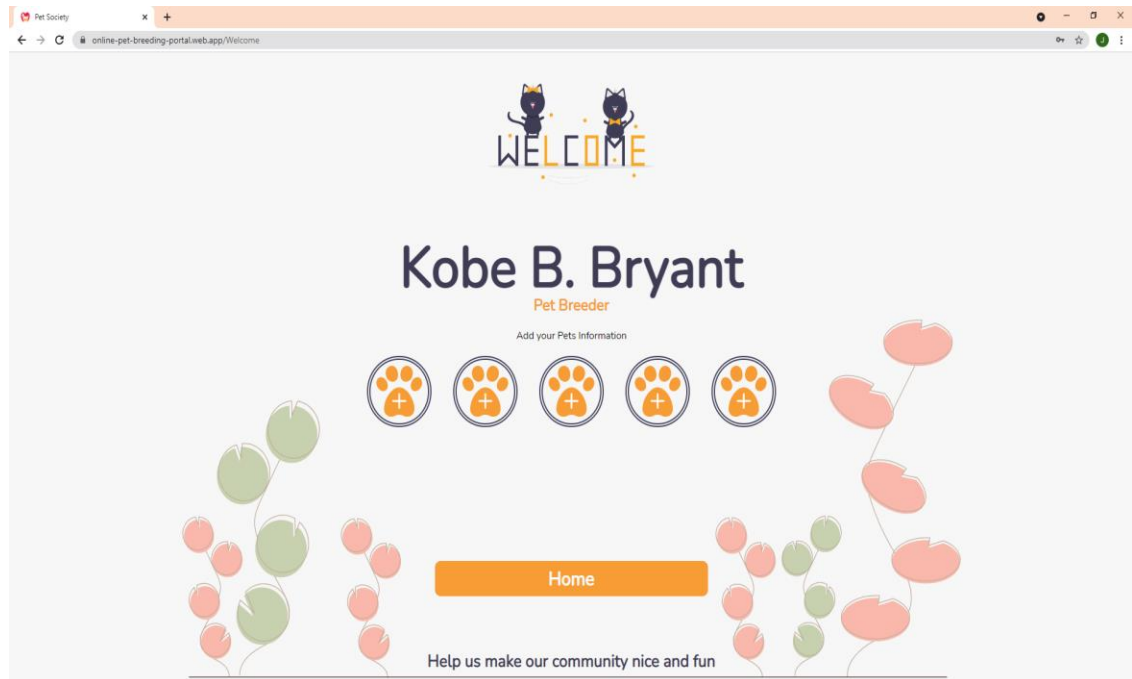


The screenshot shows a web browser window with the URL "online-pet-breeding-portal.web.app/register". The page features the "Pet Society" logo at the top. The main content is a "Sign Up" form with the following elements:

- Text: "Already have account? [Login](#)"
- Section header: "Sign Up"
- Section header: "User Information"
- Text: "Field with \* are required:"
- Form fields:
  - First Name\*
  - Middle Name
  - Last Name\*
  - Birth Date\* (with a calendar icon)
  - Gender\* (dropdown menu)
  - Email Address\*
  - Contact Number\*
  - Password\*
  - Confirm Password\*
  - Municipality/City\* (dropdown menu)
  - Baranggay\* (dropdown menu)
  - Address
  - Sign in as:\* (dropdown menu)
- Orange "Sign In" button

**Figure 10.1** Sign up

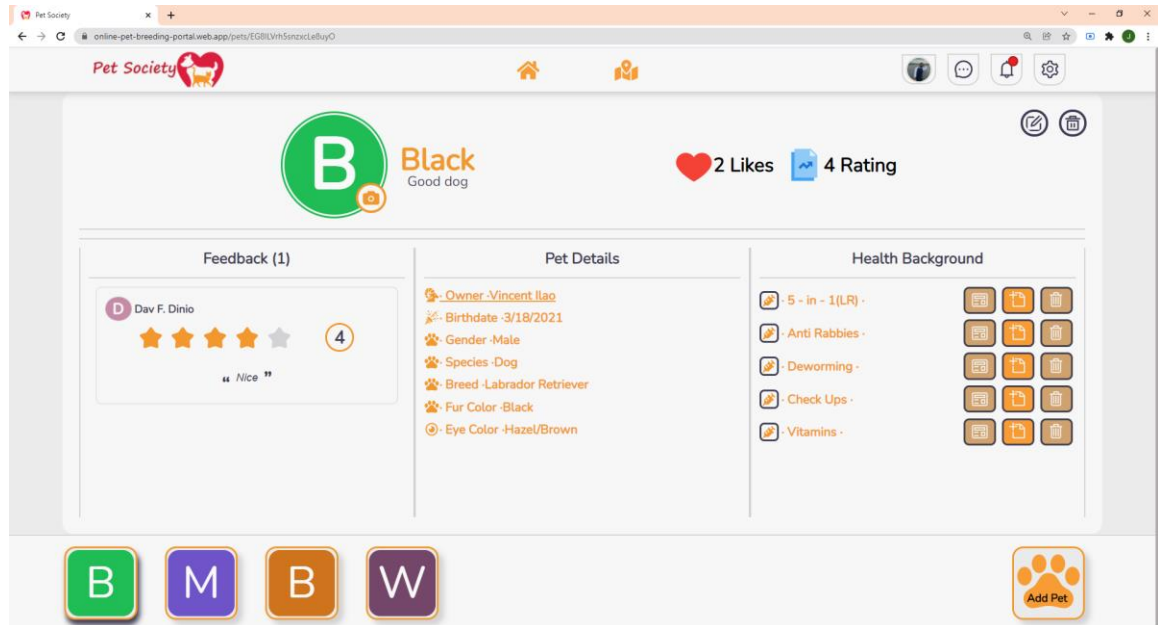
Figure 10.1 shows the sign up form to create an account, the users need to fill up the user information then after that proceed to the next form.





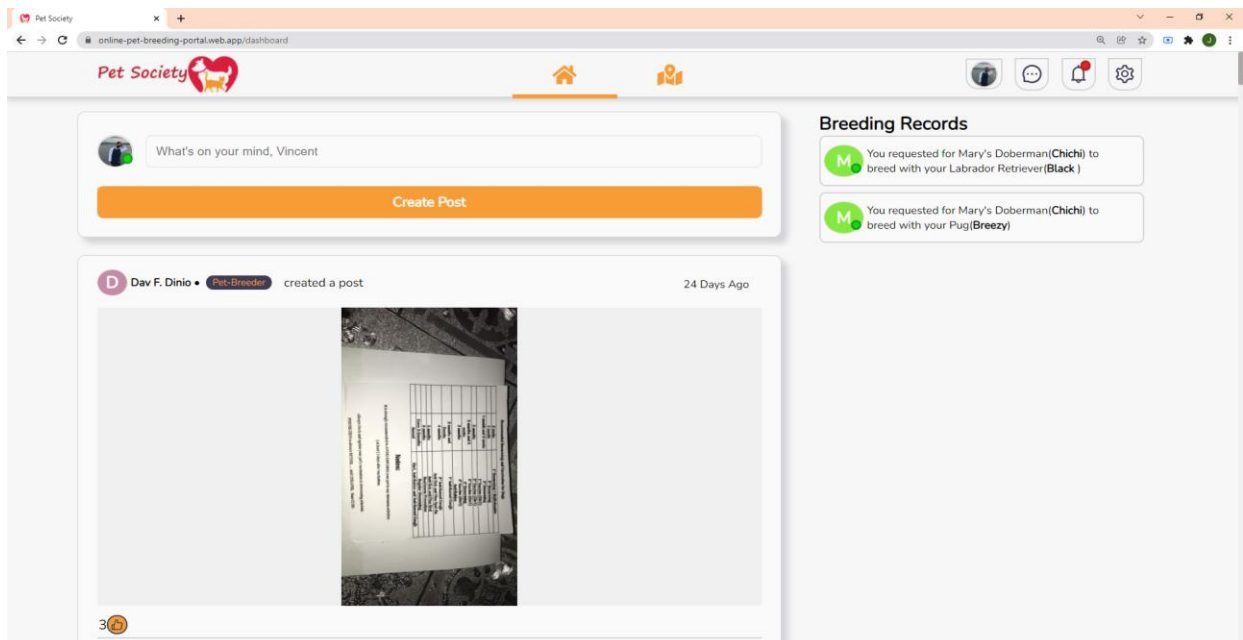
**Figure 10.2** Pet Information

Figure 10.2 shows the registration form of the pet, also the users need to fill up the background history of its pet.



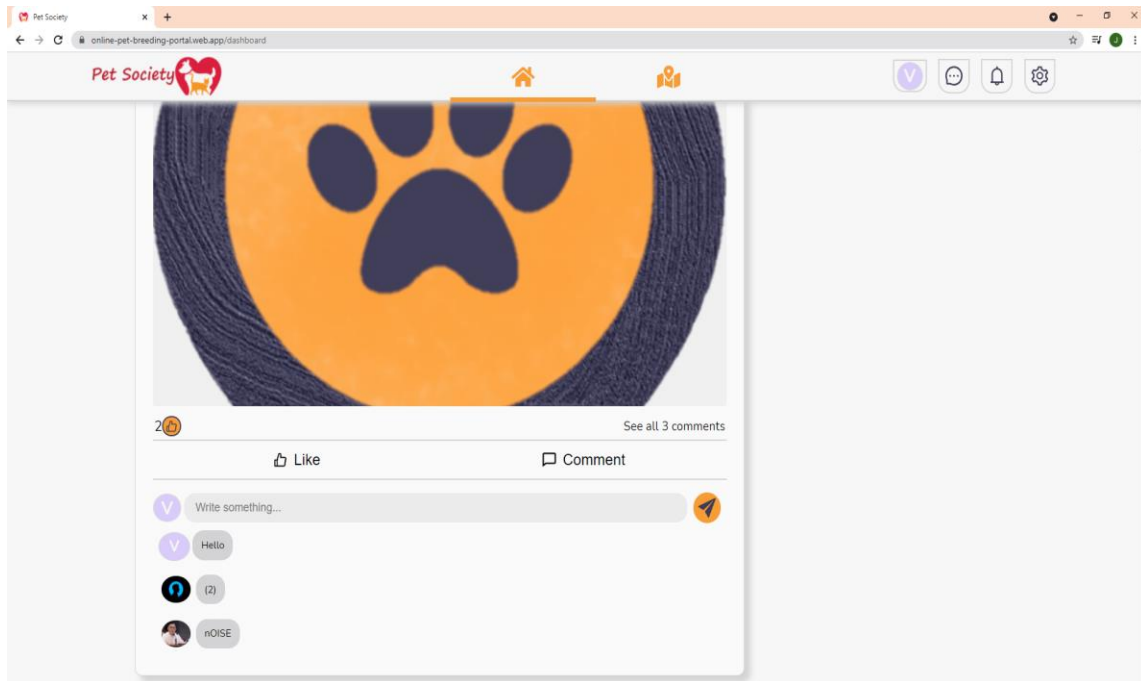
**Figure 11.** Pet Profile

Figure 11 shows the view the pet's information including health background via visiting the pet profile page



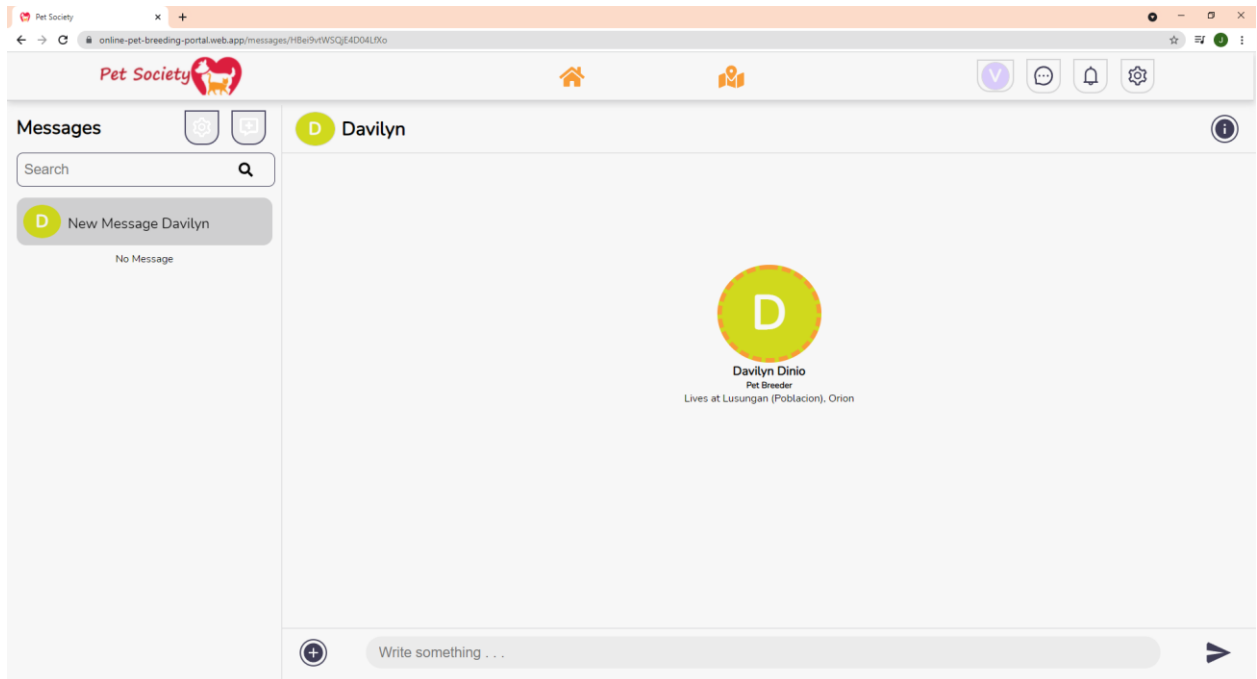
**Figure 12. Newsfeed**

Figure 12 presents the newsfeed page, the admin and users to post and view announcements related about the pet breeding through clicking the newsfeed



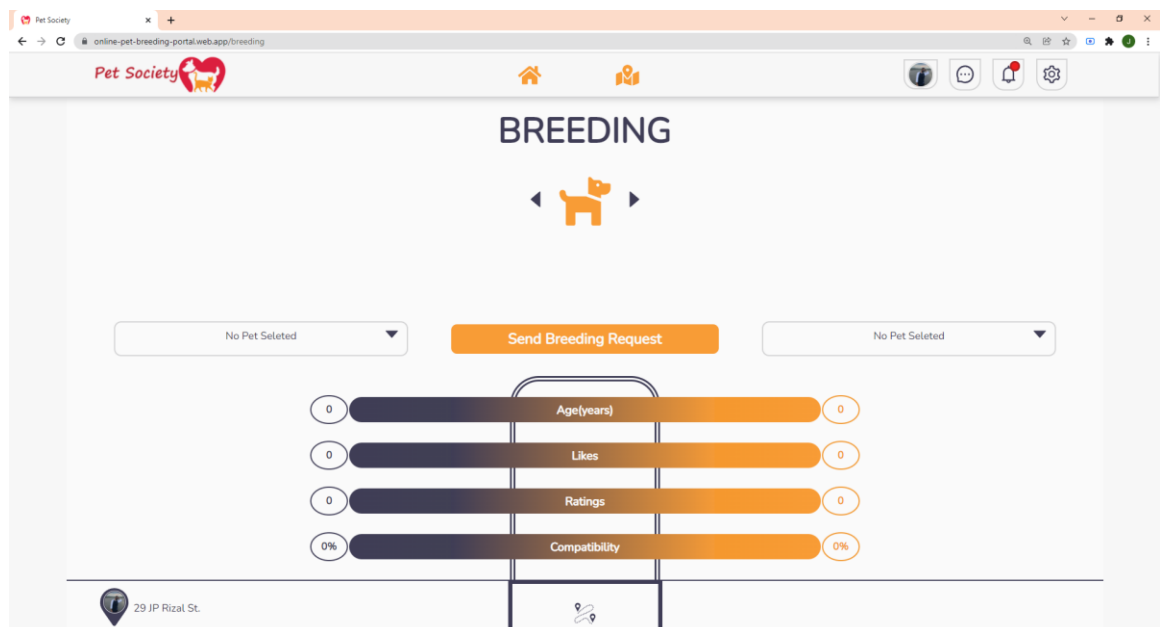
**Figure 13. Comment Section**

Figure 13 shows the comment section page where the other users can comment or react to the post and announcement shown in the newsfeed.

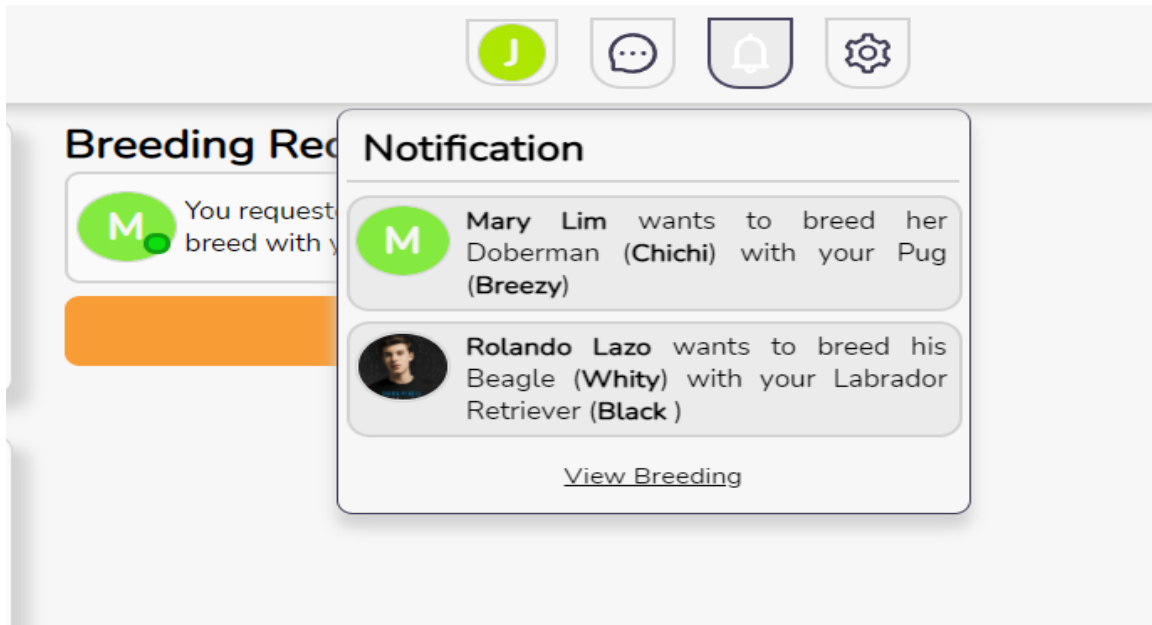


**Figure 14. Messages**

Figure 14 shows a message page, where the user can communicate with other users through messaging.

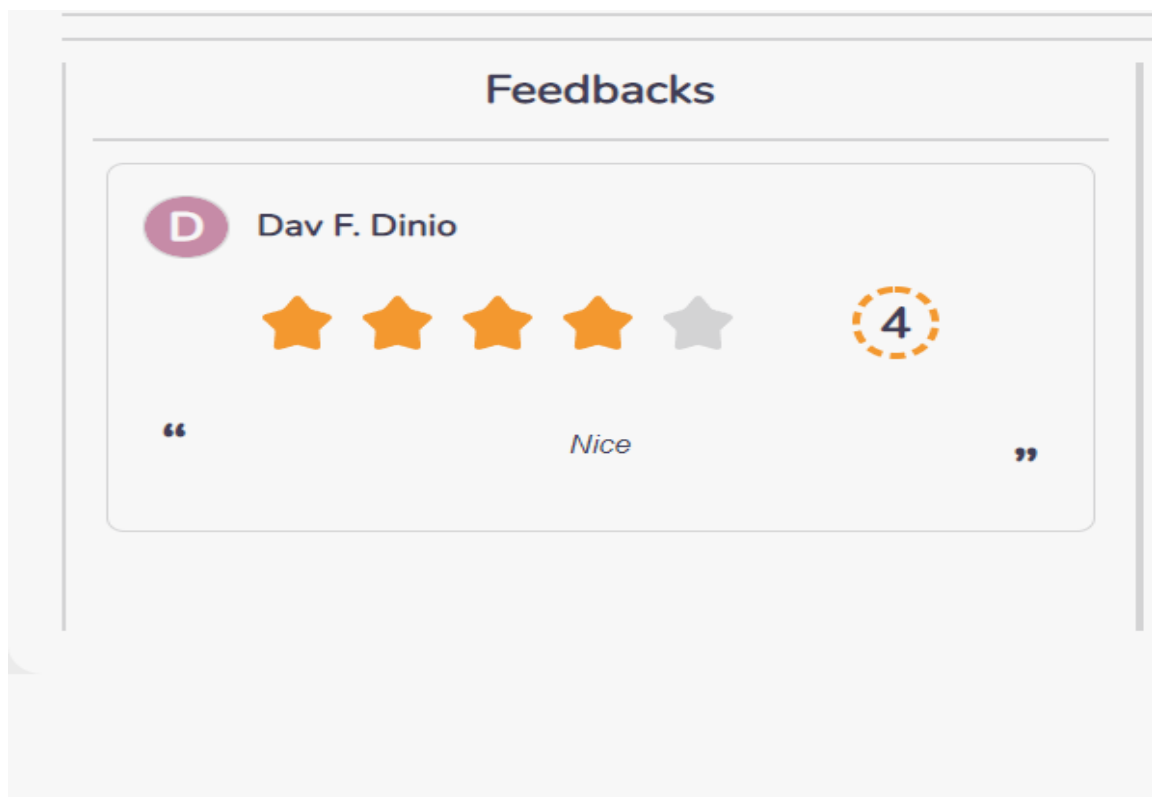






**Figure 16.** Notification.

Figure 16 the notification page shows the notifying the users about the status of breeding through a notification bell.



### **Figure 16.1 Rating**

Figure 16.1 shows the users rating page after the breeding process if the user is satisfied or not.

### **Project Capabilities and Limitations**

The following are the capabilities of the developed Bataan Online Pet Breeding Management Portal:

1. Creating an account for pet owners, pet breeder, veterinarian and guest through filling out a form about the user information and pet information;
2. Allowing the users to view the pet's information including health background via visiting the pet profile page;
3. Allowing the admin and users to post and view announcements related about the pet breeding through clicking the newsfeed ;
4. Allowing the users to comment on other user posts through the comment section;
5. Allowing the user to communicate with other users through message box ;
6. Allowing the users to choose a pet breed and method of breeding that they wanted through fill uping form and can locate a nearest pet owners using 2D mapping;
7. Notifying the users about the status of breeding through a notification bell; and
8. Allowing the users to give feedback through a rating page where both the

breeders can give feedback on how the breeding stage goes on both sides.

The following are the limitation of the develop system:

1. The web portal only caters domesticated dogs and cats.
2. The pet owner and pet breeder are only allowed to send feedback.
3. The system is capable of locating nearest pet owners and pet breeders that are only in Bataan.
4. Only veterinarian can approve the background history of the pet.
5. Only the admin has access to ban the users.

## **Test Results**

The test result shows the different testing procedures. It also illustrates the different procedural steps of every major capability to assure that it is working properly. The developers have checked the performance of the system. The items to be tested within the system are shown below, it also displays the output or result of the system. And it will also check the functionality of the system.

**Table 6. Creating Account Test Script**

Date	October 19, 2021		
Tested By	Davilyn F. Dinio		
Test Case Number	001		
Test Case Name	Users Account		
Test Case Description	The pet owners, pet breeders and veterinarian needs to create an account to use the system.		
Item(s) to be tested			
1.	Create an account Button		
Procedural Steps			
1.	Click on the Create an Account Button		
2.	Fill out the needed information		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Create an account Button	If the user doesn't have an account, it can create an account to use the system.	Y	Going to main page

Table 6. shows the creating account test script. The users can create an account before using the system.



**Table 6.1 Fill out the Pet Information Test Script**

Date	October 19, 2021		
Tested By	Davilyn F. Dinio		
Test Case Number	001		
Test Case Name	Pet Information		
Test Case Description	This will allow the pet breeders and pet owners to fill out the pet information for pet profile.		
Item(s) to be tested			
1.	Add Pet Information Button		
Procedural Steps			
1.	Click on the pet information button		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Pet Information Button	The users will be included in the group of pet owner or pet breeders, the users need to fill out the pet information for pet profile	Y	The pet information will appear on the pet profile.

Table 6.1 shows the fill out the Pet Information Test Script. The pet breeder and pet owner can fill out the pet information to know some information about your pet by other people.

**Table 7. View Pet Information Test Script**

Date	October 19, 2021		
Tested By	Davilyn F. Dinio		
Test Case Number	001		
Test Case Name	View Pet Information		
Test Case Description	Allowing the users to view the pet’s information via visiting the pet profile page and background history in the pet setting ;		
Item(s) to be tested			
1	Pet Profile Button		
Procedural Steps			
1.	Click on the user pet profile		
2.	Click on the setting		
3.	Choose pet setting		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Pet Information	The users can view all pet information in pet profile of the users	Y	Capable of viewing the pets information.
	If the veterinarian approves the background history of the pet, the users can view pet information in pet profile of the users	Y	Capable of viewing the background history of pets.

Table 7. shows the view pet information test script. The users can view the pet information of the other user on the pet profile.

**Table 8. Posting and Making Announcement Test Script**

Date	October 19, 2021		
Tested By	Davilyn F. Dinio		
Test Case Number	001		
Test Case Name	Users Post and Announcement		
Test Case Description	Allowing the users to post and announce about pet breeding.		
Item(s) to be tested			
1.	Post Button		
Procedural Steps			
1.	In the newsfeed, the users can click the posting and announcement section		
2.	The user can choose whether to find breed, show off, celebration or trade.		
3.	Click Post Button		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Post Button	The users can post and announce in the newsfeed page and users profile.	Y	The post will appear on the newsfeed and

			user profile.
--	--	--	---------------

Table 8. shows the posting and making announcement test script. The users can post and make announcements and choose whether it is show off, finding breed, celebration or trade.

**Table 9. Comment Section Test Script**

<b>Date</b>	October 19, 2021
<b>Tested By</b>	John Vincent Ilao
<b>Test Case Number</b>	003
<b>Test Case Name</b>	Comment Section
<b>Test Case Description</b>	This will allow the pet owner, pet breeder, veterinarian and admin to comment or react to the post and announcement shown in the newsfeed.
<b>Item(s) to be tested</b>	
1.	Comment Button
2.	Submit Button
2.	React Button
<b>Procedural Steps</b>	
1.	Click the comment section.
2.	Type anything that is related to pet breeding then click the submit button.

3.	Click the React Button		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Comment Button	If the users click the comment button, the comment section will appear	Y	The comment section will be appear to type anything related in pet breeding
Submit Button	The users can send the comment on the post.	Y	The users comments will show to the comment section
React Button	The users can react to the post.	Y	It will be appear and counted as react

Table 9. shows the comment test script. The users can make comments to anyone's post or announcement.

**Table 10. Message Test Script**

<b>Date</b>	October 19, 2021
<b>Tested By</b>	Davilyn Dinio
<b>Test Case Number</b>	001
<b>Test Case Name</b>	Messages Box
<b>Test Case Description</b>	This will allow the pet owner, pet breeder and veterinarian to communicate with other users through

	message box		
Item(s) to be tested			
1.	Messages Button		
2.	See in Messenger Button		
3.	Search button		
4.	Message Sent Button		
Procedural Steps			
1.	Click on the messages button.		
2.	Search the name of the person for a quicker message.		
3.	Message any related to pet breeding then click the message sent button.		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Messages Button	If the Messages Button is clicked, the pet owner, pet breeder and veterinarian can see all the messages	Y	The messages box will be appear
See in Messenger Button	If the see in messenger button is clicked, it will show all the conversations with the other users.	Y	It will direct to the messages page.
Search Button	If the user is not on the list, it can search it in the search box	Y	The name will appear then click it to start the conversation.

Message Sent Button	The users can send a message through clicking sent button	Y	The message will be send successfully
---------------------	---	---	---------------------------------------

Table 10. shows the message test script. The users can message other users.

**Table 11. Choose pet breed and method of breeding Test Script**

<b>Date</b>	October 19, 2021
<b>Tested By</b>	Davilyn F. Dinio
<b>Test Case Number</b>	001
<b>Test Case Name</b>	Choose pet breed and method of breeding
<b>Test Case Description</b>	Allowing the pet breeder and pet owner to choose the pet breed and method of breeding for the breeding process.
<b>Item(s) to be tested</b>	
<b>1.</b>	Species DropDown List
<b>2.</b>	Method DropDown List
<b>3.</b>	Breed DropDown List
<b>Procedural Steps</b>	
<b>1.</b>	Click Species Drop Down List
<b>2.</b>	Click BreedDropDown List
<b>3.</b>	Click Method Drop Down List
<b>Specifications</b>	

Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Species Drop Down List	The breeder can choose whether it's a dog or cat they wanted to breed	Y	The users choose species will appear on the other pets section
Breed Drop Down List	The users can select the pet breed that they want for their pet	Y	The users chosen breed will appear on the other pets section
Method Drop Down List	The users can choose the breeding method that they prefer.		

Table 11. shows choose pet breed and method of breeding Test Script.

The users can choose the method, breed and species that they want to locate the nearest pet owner.

**Table 11.1 2D mapping Test Script**

<b>Date</b>	October 19, 2021
<b>Tested By</b>	Rolando Lazo
<b>Test Case Number</b>	004
<b>Test Case Name</b>	Locate the Nearest Pet Breeding
<b>Test Case Description</b>	Allowing the pet breeder and pet owner to locate the nearest pet owner or pet breeder in Bataan.
<b>Item(s) to be tested</b>	



1.	Breed Button		
Procedural Steps			
1.	Click the Breed Button		
2.	Locate the nearest pet breeder or pet owner		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Breed Button	If the Breed Button is clicked, the system will locate the nearest pet owner and pet breeder		It will show all the nearest pet owner and pet breeder

Table 11.1 shows the 2D mapping test script. After choosing the species, breed and method the users can locate the nearest through 2D mapping.

**Table 12. Notification Test Script**

<b>Date</b>	October 12, 2021
<b>Tested By</b>	Marissa Mendoza
<b>Test Case Number</b>	002
<b>Test Case Name</b>	Notification
<b>Test Case Description</b>	The pet owner and pet breeder can receive notification about the status of breeding.
<b>Item(s) to be tested</b>	

1.	Notification button		
Procedural Steps			
1.	Click the notification button		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Notification button	The user will be notified if the request is approved and if the the breed is successful or not		A notification will be received by the user.

Table 12 shows the notification test scripts. After the breeding process the pet owners and pet breeder will be notified about the status of breeding.

**Table 13. Feedback Test Script**

<b>Date</b>	Nov 25, 2021
<b>Tested By</b>	John Vincent Ilao
<b>Test Case Number</b>	003
<b>Test Case Name</b>	Feedback
<b>Test Case Description</b>	Allowing the pet owner and pet breeder to give feedback for the breeding happens.
<b>Item(s) to be tested</b>	
1.	Finished button
2.	Submit button

Procedural Steps			
1.	Click the finished button.		
2.	Rate a star and typing a comments		
3.	Click the submit button.		
Specifications			
Input	Expected Output/ Result	Pass Y/N	Actual Result/Output
Finished button	If the users click the finished button, the rating form will appear	Y	The rating form will appear to rate the process and type a comment.
Submit button	If the users done in rating, click the submit button	Y	The ratings will appear in the finished page, then the ratings of stars can be found in pet settings.

Table 13 shows the feedback test scripts. The users can give feedback when breeding is done.

### Project Evaluation

This section illustrated the procedures that were formulated to evaluate the project. The target respondents of the system are fifty (50) and it is composed of thirty nine (39) pet owners, ten (10) pet breeders and one (1) veterinarian.

The mentioned procedures are the steps done by the proponents. First, the researchers checked if there is an internet connection in the area. Second, the

researchers will explain the concept of the system and its operation to the respondents. Then, the respondents will use the system and check the functionality of every capability that the system has. Next, the researchers will distribute the evaluation form to all respondents that tested the system to know all the reactions and suggestions about the system through filling out the form. Right after that, the researchers will collect the evaluation forms and start to analyze and calculate the data gathered. Lastly, the overall rating will be interpreted using the numerical range and descriptive interpretation in the table.

**Table 14. Evaluation of Software Quality: Functional Suitability**

<b>Functional Suitability</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Completeness	4.54	Excellent
B. Correctness	4.52	Excellent
C. Appropriateness	4.58	Excellent
<b>MEAN</b>	4.55	Excellent

Table 14 shows the evaluation of software quality in terms of Functional Suitability characteristics, it is composed of Sub-characteristic like Functional Completeness, Functional Correctness and Functional Appropriateness, and all of these tallied an average mean having a descriptive rating equivalent to “Excellent”, Having a criterion mean of 4.55, meaning the system ability to be completeness, correctness, and appropriateness and satisfied the respondents.

**Table 15. Evaluation of Software Quality: Performance Efficiency**

<b>Performance Efficiency</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Time Behavior	4.50	Very Good
B. Resource Utilization	4.52	Excellent
C. Capacity	4.56	Excellent
<b>MEAN</b>	4.53	Excellent

Table 15 shows the evaluation of software quality in terms of Performance Efficiency characteristics, it is composed of Sub-characteristic like time behavior, resource utilization and capacity, and all of these tallied an average mean having a descriptive rating equivalent to “Excellent”, Having a criterion mean of 4.53, meaning the system ability to be time behavior, resource utilization and capacity and satisfied the respondents.

**Table 16. Evaluation of Software Quality: Compatibility**

<b>Compatibility</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Co-Existence	4.54	Excellent
B. Interoperability	4.38	Very Good
<b>MEAN</b>	4.46	Very Good

Table 16 shows the evaluation of software quality in terms of Compatibility characteristics, it is composed of Sub-characteristic like co-existence and interoperability, and all of these tallied an average mean having a descriptive rating equivalent to “Very Good”, Having a criterion mean of 4.46, meaning the system

ability to be co-existence and interoperability. The respondents also are satisfied to use the system.

**Table 17. Evaluation of Software Quality: Usability**

<b>Usability</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Appropriateness Recognizability	4.56	Excellent
B. Learnability	4.54	Excellent
C. Operability	4.56	Excellent
D. Use Error Protection	4.40	Very Good
E. User Interface Aesthetics	4.56	Excellent
F. Accessibility	4.58	Excellent
<b>MEAN</b>	4.53	Excellent

Table 17 shows the evaluation of software quality in terms of Usability characteristics, it is composed of Sub-characteristic like appropriateness recognizability, learnability, operability, use error protection, user interface aesthetics and accessibility and all of these tallied an average mean having a descriptive rating equivalent to “Excellent”, Having a criterion mean of 4.53, meaning the system ability to be appropriateness, learned, operable, user error protection, user interface aesthetics and accessibility and satisfied the respondents.

**Table 18. Evaluation of Software Quality: Reliability**

<b>Reliability</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Maturity	4.54	Excellent
B. Availability	4.50	Very Good
C. Fault Tolerance	4.44	Very Good
D. Recoverability	4.36	Very Good
<b>MEAN</b>	4.46	Very Good

Table 18 shows the evaluation of software quality in terms of Reliability characteristics, it is composed of Sub-characteristic like maturity, availability, fault tolerance and recoverability, and all of these tallied an average mean having a descriptive rating equivalent to “Very Good”, Having a criterion mean of 4.46, meaning the system ability to be matured, available, tolerance and recovery.

**Table 19. Evaluation of Software Quality: Security**

<b>Security</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Confidentiality	4.58	Excellent
B. Integrity	4.36	Very Good
C. Non-Repudiation	4.50	Very Good
D. Accountability	4.44	Very Good
E. Authenticity	4.42	Very Good
<b>MEAN</b>	4.46	Very Good

Table 19 shows the evaluation of software quality in terms of Security

characteristics, it is composed of Sub-characteristic like confidentiality, integrity, non-repudiation, accountability and authenticity and all of these tallied an average mean having a descriptive rating equivalent to “Very Good”, Having a criterion mean of 4.46. The system ensures that only those who have been allowed to access the data have access to it. The user’s and pet information are secured and not all information is visible to other users.

**Table 20. Evaluation of Software Quality: Maintainability**

<b>Maintainability</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Modularity	4.52	Excellent
B. Reusability	4.50	Very Good
C. Analyzability	4.32	Very Good
D. Modifiability	4.48	Very Good
E. Testability	4.46	Very Good
<b>MEAN</b>	4.46	Very Good

Table 20 shows that the maintainability of evaluation of software quality for Bataan Pet Breeding Management Portal has a mean of 4.46 which is equivalent to “Very Good” descriptive statistics. The respondents evaluated and navigated the web application, they agreed that the system can easily to maintained and controlled.



**Table 21. Evaluation of Software Quality: Portability**

<b>Maintainability</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Adaptability	4.48	Very Good
B. Installability	4.50	Very Good
C. Replaceability	4.54	Excellent
<b>MEAN</b>	4.51	Excellent

Table 21 shows the evaluation of software quality in terms of Portability characteristics, it is composed of Sub-characteristic like adaptability, installability and replaceability with an average mean 4.51 which is equivalent in descriptive interpretation as “Excellent” . The system can be adapted in different hardware or software environments.

**Table 22. Summary of Project Evaluation**

<b>Software Quality Factor</b>	<b>Average Mean</b>	<b>Descriptive Interpretation</b>
A. Functional Suitability	4.55	Excellent
B. Performance Efficiency	4.53	Excellent
C. Compatibility	4.46	Very Good
D. Usability	4.53	Excellent
E. Reliability	4.46	Very Good
F. Security	4.46	Very Good
G. Maintainability	4.46	Very Good
H. Portability	4.51	Very Good
<b>OVERALL MEAN:</b>	4.49	Very Good

Table 22 shows that the Bataan Online Pet Breeding Management Portal for Bataan overall evaluation reached an average mean of 4.49 with descriptive evaluation of Very Good. The evaluation results show that the newly developed system can help the pet owners and pet breeders to locate the nearest pet owner and pet breeders in Bataan.

## **Chapter 5**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter includes the discussion of summary of findings, conclusion and recommendations.

#### **Summary of Findings**

Based on the analysis of data, the findings are as follow:

1. On the result of the evaluation of the Bataan Online Pet Breeding Management Portal.
  - 1.1. The Functional Suitability characteristic got a mean rating of 4.55 with descriptive interpretation of Excellent. The result implied that majority of the respondents showed interest in system capabilities such as viewing user and pet information including the pet background history, locating nearest pet owner or pet breeder and receiving notification through sending a request of breeding, and also giving feedback when breeding is done.
  - 1.2. The Performance Efficiency characteristic got a mean rating of 4.53 with descriptive interpretation of Excellent. The results showed that the system responds immediately to the breeding process and request of breeding.
  - 1.3. The Compatibility characteristic got a mean rating of 4.46 and descriptive interpretation of Very Good. The evaluation shows that

pet owners and pet breeders are satisfied with the online pet breeding management portal since it can be accessed using any type of web browser.

- 1.4. The Usability characteristic got a mean rating of 4.53 and a descriptive interpretation of Excellent. Most of the users assessed the system are user friendly and easy to locate nearest pet breeder and pet owner, which demonstrated that the system is very helpful and useful for all the pet owners and pet breeders in Bataan through seeking and investment.
- 1.5. The Reliability characteristic got a mean rating of 4.46 and descriptive interpretation of Very Good. The results show that the respondents are grateful with the accuracy of the system in locating the nearest pet owner and pet breeder.
- 1.6. The Security characteristic got a mean rating of 4.46 and a descriptive interpretation of Very Good. The findings proved that the majority of the respondents showed interest in using the system registration feature because the system saves the user's information securely.
- 1.7. The Maintainability characteristic got a mean rating of 4.46 and a descriptive interpretation of Very Good. The result shows that the system data can easily be modified by users and recognized error. The admin can maintain the users post and block the users according to the violation that they do. And also accept or decline the

ID or license permit of the veterinarian. The Veterinarian can maintain the pet's information by approving and disapproving of background history.

- 1.8. The Portability characteristic got a mean rating of 4.51 and descriptive interpretation of Excellent. The respondents showed interest in using the system features because the system can be easily accessed since it is a web portal, the mobile device has access to use the system as long as there is an internet connection.

## **Conclusions**

The following conclusions are gathered based from the evaluation:

1. Bataan Online Pet Breeding Management Portal was developed to help users to find and locate nearest pet owners and pet breeders around in Bataan. Additionally, it can handle the information of the users including the health background of the pet. The system improves the current way in finding pet breeders and pet owners through choosing pet breed and method for breeding. The pet owner can request breeding and it will be accepted by the user who receives the request. The users can also view the information of the pet and users.
2. The system was developed using Visual Studio Code, Adobe Dreamweaver, Photoshop 2019, Firebase and Windows OS 10, as a software requirement and computer system and router as hardware requirements.
3. Bataan Online Pet Breeding Management Portal was tested and come up

with expected results. The test scripts results were based on ISO 25010 criteria: functional suitability, maintainability, usability and compatibility.

4. Bataan Online Pet Breeding Management Portal has been rated Very Good with an overall mean of 4.49 because the system met the specified requirements of the target respondents. In addition, the system passed the evaluation's criteria: functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability.

### **Recommendations**

Based on the foregoing conclusions, the following are recommended for the further improvement of the project.

1. To add more pet breeds.
2. To have a voting page for pet breeders.
3. To share the other post of the users.
4. To have a mobile application .

## Bibliography

### Blog Post

Letendart M. (2018, March 28). *What is Web Development?*. Retrieved from <https://blog.openclassrooms.com/en/2018/03/28/web-development-definition/>

Slyter K. (2019, February 25). *What is Information Technology? A Beginner's Guide to the World of IT*. Retrieved from <http://www.rasmussen.edu/degrees/technology/blog/what-is-information-technology/>

Rebes. (2019 August 13) *Software Quality Standards- How and Why we Applied ISO 25010*.Monterail. Retrieved from <https://www.monterail.com/blog/software-qa-standards-iso-25010>.

Codacy.(2021 March 17). *ISO/IEC 25010 Software Quality Model*. Retrieved from <https://blog.codacy.com/iso-25010-software-quality-model/>

Raza M. (2018, August 29). *DBMS: An Intro to Database Management Systems*. Retrieved from <https://www.bmc.com/blogs/dbms-database-managementsystems/>

Choudary A. (2020, November 25). *What is Integration Testing? A Simple Guide on How to Perform Integration Testing*. Retrieved from <https://www.edureka.co/blog/what-is-integration-testing-a-simple-guide-on-how-to-perform-integration-testing/>

Bangerter, J. (2021). *Data flow diagram levels*. Lucid Chart Retrieved from <https://www.lucidchart.com/blog/data-flow-diagram-tutorial>

Hamilton, T. (2021). *Performance Testing Tutorial: What is, Types, Metrics & Example*  
Retrieved from <https://www.guru99.com/performance-testing.html#:~:text=Performance%20Testing%20is%20a%20software,software%20application%20under%20particular%20workload>.

Wiesen G. (2021, February 8). *What is System Maintenance?* Retrieved from <https://www.easytechjunkie.com/what-is-system-maintenance.htm>

Grant, M. (2021, January 7). *What is Gantt Chart?*, Investopedia,  
Retrieved from <https://www.investopedia.com/terms/g/gantt-chart.asp>

## A newspaper article

Erpinnews (2017, December 22). Impact of Information Technology on Society.  
<https://erpinnews.com/impact-of-information-technology-on-society>

## Journals

Surahmat, A. (2019, February 21). MEDIA FOR LEARNING WEB DESIGN USING PHOTOSHOP CS6 AND ADOBE DREAMWEAVER BASED ON MULTIMEDIA | Journal of Information Systems and Informatics (Simika). Retrieved from <http://ejournal.lppmunbaja.ac.id/index.php/jsii/article/view/276>

Biscobing. (2021). *Entity Relationship Diagram (ERD)*. TechTarget. Retrieved from <https://searchdatamanagement.techtarget.com/definition/entity-relationship-diagram-ERD>

Peters, & Agrey. (2020, April 10). *An ISO 25010 Based Quality Model for ERP Systems*. ASTES Journal. Retrieved from <https://astesj.com/v05/i02/p72/#1477470858207d194995f-690d>

Douglass B.P. (2016). *What Is Model-Based Systems Engineering?* Retrieved from <https://www.sciencedirect.com/topics/computer-science/verification-system>

Fowler. (2018, January 16). *Integration Test*. MartinFowler.com Retrieved from <https://martinfowler.com/bliki/IntegrationTest.html>

Odhiambo D. (2018, September 24). *System Design in Software Development*. Retrieved from <https://medium.com/the-andela-way/system-design-in-software-development-f360ce6fcbb9>

Davidson. (2020, August). *Breeding Management of Dogs and Cats*. MSD Veterinary Manual. Retrieved from <https://www.msdsvetmanual.com/management-and-nutrition/management-of-reproduction-dogs-and-cats/breeding-management-of-dogs-and-cats>

## Page from a website



Panwar A. (2020, December 3). *Types of Database Management Systems*. Retrieved from <https://www.c-sharpcorner.com/UploadFile/65fc13/types-of-database-management-systems/>

John N. (2018, March 7). *Introduction to Web Development*. Retrieved from <https://medium.com/@niyajohn9495/introduction-to-web-developmentcf1813ec5dd>

Techopedia (2021). *Web Programming*. Retrieved from <https://www.techopedia.com/definition/23898/web-programming>

TheDrakeCenter.com (2021). "Eat. Play. Love". Drake Center for Veterinary Clinic. Retrieved from [https://www.thedrakecenter.com/services/pets/blog/whats-pet-portal?fbclid=IwAR1tAF0EPIZfF3vwU13\\_qRG65U1LvFjif4yFMbqgHYUs0cMblxBiG-9gT8](https://www.thedrakecenter.com/services/pets/blog/whats-pet-portal?fbclid=IwAR1tAF0EPIZfF3vwU13_qRG65U1LvFjif4yFMbqgHYUs0cMblxBiG-9gT8)

Plainer (2021). *Practical Study of Visual Studio*. Retrieved from <https://www21.in.tum.de/teaching/osp/WS20/assets/fr-plainer-vscode.pdf>

Smyth.(2017). *GoogleBooks*. Retrieved from [https://books.google.com.ph/books?id=9i4tDwAAQBAJ&printsec=frontcover&dq=firebase&hl=en&sa=X&redir\\_esc=y#v=onepage&q=firebase&f=false](https://books.google.com.ph/books?id=9i4tDwAAQBAJ&printsec=frontcover&dq=firebase&hl=en&sa=X&redir_esc=y#v=onepage&q=firebase&f=false)

Bigelow, J (2008-2021). *What is Microsoft Windows 10? TechTarget*. Retrieved from <https://searchenterprisedesktop.techtarget.com/definition/Windows-10>

Lin,W.(2015, April, 17). *Flashdrive*.<https://patents.google.com/patent/US9612630B2/en>

*javatpoint*.(2011–2018). *Www.Javatpoint.Com*.  
<https://www.javatpoint.com/mouse>

Bucki (2019). *What is a Laptop Computer?* Retrieved from <https://www.thebalancesmb.com/whatisalaptopcomputer2533639#:~:text=A%20laptop%20computer%20is%20a,built%2Din%20keyboard%20and%20touchp a d.&text=Your%20line%20of%20work%20will%20dictate%20the%20laptop%20type%20you%20need.>

Gardiner. (2019, April 23). *Breeding Management of the bitch*. UCDavis. Retrieved from <https://healthtopics.vetmed.ucdavis.edu/health-topics/canine/breeding-management-bitch>

Meador, D. (2018, July 27). *What is Data Dictionary*. Tutorialspoint. Retrieved from <https://www.tutorialspoint.com/What-is-Data-Dictionary>

Ward E. (2021). Breeding for Pet Owners - The Pros and Cons of Breeding Dogs. (n.d). Retrieved from [https://vcahospitals.com/know-your-pet/breeding-for-pet-owners-the-pros-and-cons-of-breeding-dogs?fbclid=IwAR2clAXRFstHzPD3meNHfcRnMlk7pG18Ar0Ae5P58WDWj-IRWvDc5SYdu\\_w](https://vcahospitals.com/know-your-pet/breeding-for-pet-owners-the-pros-and-cons-of-breeding-dogs?fbclid=IwAR2clAXRFstHzPD3meNHfcRnMlk7pG18Ar0Ae5P58WDWj-IRWvDc5SYdu_w)

Freeman, A. E. (2017, December 21). Animal breeding. Encyclopedia Britannica. Retrieved from <https://www.britannica.com/science/animal-breeding>

Hansen, & Hansen. (2019). *Dog Breeder Pro*. Dog Breeder Pro. Retrieved from <https://dogbreederpro.com/?fbclid=IwAR3DeAMVqOtrZ7rbZU7027KGZq0tv7y7HvrtOT-W8HqqStdxtbP5KVpNC8>

Turner J. (2021, February 11). *The 7 Main Ways Technology Impacts Your Daily Life*. Retrieved from <http://tech.co/vpn/main-ways-technology-impacts-daily-life>

AAHA (2016) *Pet Breeding*. Retrieved from <http://www.aaha.org/about-aaha/aahaposition-statements/pet-breeding/>

Roper, K. (2016). *Dog Breeding for Beginners*. Love to Know. Retrieved from [https://dogs.lovetoknow.com/wiki/Dog\\_Breeding\\_for\\_Beginners](https://dogs.lovetoknow.com/wiki/Dog_Breeding_for_Beginners)

## WWW Document

qld.gov.au (2021). *"Dog breeding animal welfare standards and registration". The State of Queensland*. Retrieved from [https://www.business.qld.gov.au/industries/farmsfishing-forestry/agriculture/livestock/animal-welfare/dog-breederregistration?fbclid=IwAR0ksPJ03\\_hCS8guPXAXuxaKZ74r9kcgSmEQNTFVryPx6wHzq9L\\_AudMms](https://www.business.qld.gov.au/industries/farmsfishing-forestry/agriculture/livestock/animal-welfare/dog-breederregistration?fbclid=IwAR0ksPJ03_hCS8guPXAXuxaKZ74r9kcgSmEQNTFVryPx6wHzq9L_AudMms)

Costa, A., et al. (2020, March 03). "Regulatory Compliance in Online Dog Advertisements in Australia". PMC. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7142573/>

animalcare.lacounty.gov (2019, January 16). "Pet Stores, Breeding and You – California Assembly Bill no. 485". Los Angeles County: Animal Care & Control. Retrieved from <https://www.animalcare.lacounty.gov/pet-stores-breeding-andyou/>

### **WWW Document - no Author**

*Breeding Management*. (2016, July 18). *Veterian Key*. Retrieved from <https://veteriankey.com/breeding-management/>

wellingtonvet.com (2021). "*What is Pet Portal & Self Scheduling System?*". *Wellington Veterinary Clinic*. Retrieved from <https://www.wellingtonvet.com/about-pet-portal.html#>

Computer Hope.(2019, May 4). *What is a router?* Retrieved from <https://www.computerhope.com/jargon/r/router.htm>

simplilearn (2020, December 02). *What Is Requirement Analysis: Overview, Applications, Techniques and Top Tools Used*. Retrieved from <https://www.simplilearn.com/what-is-requirement-analysis-article>

Guru 99(2021) *What is unit testing?*  
Retrieved from <https://www.guru99.com/unit-testing-guide.html#:~:text=UNIT%20TESTING%20is%20a%20type,an%20application%20by%20the%20developers.>

sparxsystems.com,(2020), *Data Flow Diagram*. Retrieved from [https://sparxsystems.com/enterprise\\_architect\\_user\\_guide/15.2/guidebooks/tools\\_ba\\_data\\_flow\\_diagram.html](https://sparxsystems.com/enterprise_architect_user_guide/15.2/guidebooks/tools_ba_data_flow_diagram.html)

Zooeasy (2021). Zooeasy. Retrieved from <https://www.zooeasy.com>

softwaretestinghelp.com (2021, April 30). *what is SDLC waterfall model?* Retrieved from <https://www.softwaretestinghelp.com/what-is-sdlc-waterfall-model/>

crescentflightops.com (2019, April 4). *The Benefits of having a 2D map (Orthomosaic)*. Retrieved from <https://crescentflightops.com/blog/f/the-benefits-ofhaving-a-2d-map-orthomosaic>

*What Are Conceptual Models and How Can You Use them?* (2017, March 23). Airbrake. Retrieved from <https://airbrake.io/blog/sdlc/conceptual-model>

Aerizone.com (2020). *2D/3D Mapping*. Retrieved from <https://aerizone.com/2d-3dmapping/drone+services>

Visual Paradigm. (2020). *What is Unified Modeling Language (UML)?* Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-uml/>

TechTarget Contributor. (2021). *use case diagram (UML use case diagram)*. Tech Target. Retrieved from <https://whatis.techtarget.com/definition/use-case-diagram>

SmartDraw, LLC. (2021). *Activity Diagram*. Smart Draw. Retrieved from <https://www.smartdraw.com/activity-diagram/>

visual-paradigm.com (2020). *What is Data Flow Diagram?* Retrieved from <https://www.visual-paradigm.com/guide/data-flow-diagram/what-is-data-flow-diagram/>

edrawmax.com (2021). *What is a Context Diagram?*. Retrieved from <https://www.edrawmax.com/context-diagram/>

AgileAlliance. (2021) *Acceptance Testing*. Retrieved from [https://www.agilealliance.org/glossary/acceptance/#q=~\(infinite~false~filters~\(postType~\(~'page~'post~'aa\\_book~'aa\\_event\\_session~'aa\\_experience\\_report~'aa\\_glossary~'aa\\_research\\_paper~'aa\\_video\)~tags~\(~'acceptance\\*20test\)\)~searchTerm~'~sort~false~sortDirection~'asc~page~1\)](https://www.agilealliance.org/glossary/acceptance/#q=~(infinite~false~filters~(postType~(~'page~'post~'aa_book~'aa_event_session~'aa_experience_report~'aa_glossary~'aa_research_paper~'aa_video)~tags~(~'acceptance*20test))~searchTerm~'~sort~false~sortDirection~'asc~page~1)

projectmanager.com.(2021). *What is a Gantt Chart*. Retrieved from <https://www.projectmanager.com/gantt-chart>

gantt.com.(2021). *What is a Gantt Chart?*.  
Retrieved from <https://www.gantt.com/>

Upkeep Maintenance Management Terms. (2021). Operation and Maintenance Manual. UpKeep. Retrieved from <https://www.onupkeep.com/learning/maintenance-tools/operation-maintenance-manual>

Breeder Cloud Pro. (2021). *Professional Cloud-Based Dog Breeding and Kennel Software*. Retrieved from [https://breedercloudpro.com/?fbclid=IwAR3tJ\\_mtqa0uBb0z4g5gWgtqcXiUaegoEXRQyTBkEVS3XyV709jEMP3Eeol](https://breedercloudpro.com/?fbclid=IwAR3tJ_mtqa0uBb0z4g5gWgtqcXiUaegoEXRQyTBkEVS3XyV709jEMP3Eeol)

W3computing.com(2021)Developing Data Flows Diagram(DFDs). Retrieved from <https://www.w3computing.com/systemsanalysis/developing-data-flow-diagrams/#:~:text=The%20child%20diagram%20is%20given,number%20for%20each%20child%20process.>

Autodesk.help (2017, June 15). *2D Maps*. Retrieved from <https://knowledge.autodesk.com/support/3ds-max/learn-explore/caas/CloudHelp/cloudhelp/2017/ENU/3DSMax/files/GUID-734C2152-1B75-45E5-B25F-EA12E63DC62C-htm.html>

### **WWW Document - corporate author**

Panjaitan, M. I. (2020, August 31). *DEVELOPMENT OF COMPUTER-BASED PHOTOSHOP LEARNING MEDIA USING COMPUTER BASED INTERACTION METHOD JURNAL SCIENTIA*. Retrieved from <http://infor.seaninstitute.org/index.php/pendidikan/article/view/54>

Desai P. (2019, October 11). *Introduction of DBMS (Database Management System)/Set1*. Retrieved from. <https://www.geeksforgeeks.org/introduction-ofdbms-database-management-system-set-1/>

creately.com (2020, October 14). *The Easy Guide to UML Class Diagrams | Class Diagram Tutorial*. Retrieved from <https://creately.com/blog/diagrams/class-diagram-tutorial/>

opentextbooks.org (2016, January 19). Introduction to Systems Implementation. Retrieved from <http://www.opentextbooks.org.hk/ditatopic/25374>

GeeksforGeeks (2019, August 9) *System Testing*.

Retrieved from <https://www.geeksforgeeks.org/system-testing/>

American Animal Hospital Association. (2016). *Pet Breeding*. AAHA. Retrieved from <https://www.aaha.org/about-aaha/aaha-position-statements/pet-breeding/>

GCF Learn Free. (1998–2021). *Computer Basic - What is a computer?* GCF Global. Retrieved from <https://edu.gcfglobal.org/en/computerbasics/what-is-a-computer/1/>

bestfriend.org (2019). “Pet Breeding: Best Friends' Position”. Best Friends: Save Them All. Retrieved from <https://resources.bestfriends.org/article/pet-breeding-best-friends-position>

## **Appendices**

The following are the contents of the appendices

- Title Proposal
- Advise's Commitment and Agreement
- Milestone Contract and Checklist
- Letter of Intent
- Pre-survey Results/ Transcript of Interview
- Topical Outline
- Child Diagram
- Data Dictionary
- Evaluation Instrument
- Summary of Evaluation Results
- Weekly Status Report
- Request Form for Oral Examination
- Completion Checklist
- User Manual

# APPENDIX A

# TITLE PROPOSAL

## TITLE PROPOSAL

**Project Title :** A Proposed Bataan Online Pet Breeding Management Portal



## **Summary**

The pet breeding was used in the study to improve the developed system and to identify the importance of breeding. Using pet breeding it can help the pet owners to remove the undesired traits of their pet which has served as a guide for all the pet breeders. And using a pet breeding portal that will serve as a gateway for application. This will be used in the developed system to have easier and better access to the users. The study is to create a web application that is capable of locating the nearest pet owner and pet breeder.

### **Project Background:**

The Developed Bataan Online Pet Breeding Management Portal aims to help pet breeders and pet owners to seek for the nearest pet breeders or pet owners. The developed system can manage the users information including the pet of the users through the use of a database. The system gives access to the pet owner and pet breeders to choose the type of breeding that they want. The project also gives access to the users to post an announcement of events and can also allow them to comment on the post of the other users. The users can also communicate with their fellow users to answer all questions. The system also provides 2D mapping that shows the nearest location of pet breeders or pet owners.

### **The Current State of Technology**

In every sector, technology has lowered labor and time while increasing the efficiency of production needs. It has made our life simpler,

more pleasant, healthier, and more fun. It has revolutionized transportation and communication. Technology, along with science, has enabled us to become self-sufficient in many aspects of life. After a certain point in time, a technology's invention makes it a part of society and fundamental to human life. To take advantage of emerging technology, it is critical to keep one step ahead of the curve. By lowering the time it takes to execute an activity that would otherwise require a lot of time and effort if done manually, having a mobile application, computerized system, and website may assist everyone start saving time and effort. It may also assist by giving accurate, timely findings and replies, which are essential for everyone.

### **Project Problem Statement**

The Bataan Online Pet Breeding Management Portal is for individuals who want to have a quick and easy search for pet breeders nearest to its location. Using the 2D mapping it can easily track the location of all other breeders and pet owners. While looking for a breed they are capable in choosing the pet breed and what type of method of breeding they wanted to take for the pet.

### **Project Assumption**


Bataan Online Pet Breeding Management Portal is designed to help the pet owners to look for other nearest pet breeders in Bataan. The proposed system

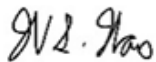
can manage the users information including the pet of the users through the use of a database. The system will give access to the pet owner and pet breeders to choose the type of breeding that they want. The project also will give access to the users to post an announcement of events and can also allow them to comment on the post of the other users. The users can also communicate with their fellow users to answer all questions. The system also provides 2D mapping that will show the nearest location of pet breeders or pet owners. In addition, the system provides a notification bell that shows the status of breeding. The pet owners and pet breeders can contribute to the improvement of the breeding process by giving feedback.

The following are the benefits that will be gained from the proposed system:

- Pet owners can easily find nearest pet owners and pet breeders.
- Pet owners and pet breeders will be able to view the background information of the other users and pet background history.
- A better transaction for all the users
- The system is well managed and monitored by the admin
- Background history of the pet are approved and determined by the veterinarian

**Proponents:**

  
Dinio, Davilyn F.

  
Ilao John Vincent S.



Lazo, Rolando Allan A.

Mendoza, Marissa P.

Approved by:



Cherry A. Collera, PhD

## APPENDIX B

# **ADVISE'S COMMITMENT AND AGREEMENT**

**STUDENTS' AND ADVISER THESIS COMMITMENT and  
AGREEMENT**

This agreement is binding the Student/s and their thesis adviser for the duration and completion of their research project. As an agreement, the following will be expected from both parties.

- Student/s is/are expected to put his/their work into their thesis.
- Faculty advisers are expected to guide students to produce their best work.
- Both jobs are time-consuming and must be carried out by students and faculty members working together in a disciplined way over a sustained period.
- Both parties are responsible for seeing that the necessary work is completed on time. A clear schedule should be made and agreed upon by both parties for their meetings to supervise the progressive elaboration of the research project.

Whereas the thesis adviser is expected to perform the following duties:

- The thesis adviser is expected to mentor the students throughout the project development by guiding the preparation and completion of the project.
- Periodic meetings and performance reviews are expected to be given out by the thesis adviser to their adviser/s to monitor the status of the research project.
- The thesis adviser shall be the source of encouragement and support for the students to ensure that the system's objectives will be achieved.

The signature below indicates that both parties agree to the duties and responsibilities set forth as stipulated in the Thesis/Research Methodology Manual.

**Title:** Bataan Online Pet Breeding Management Portal

**Course/Section:** BS Information Technology - NW4C

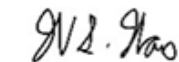
Advisee's Full Name Signature/s/Date      Adviser's Full Name Signature/Date



Dinio, Davilyn F.



Cherry A. Collera, PhD



Ilao, John Vincent S.



Lazo, Rolando Allan A.



Mendoza, Marissa P.

## APPENDIX C

# MILESTONE CONTRACT AND CHECKLIST

## **Thesis Milestone Contract and Checklist**

*This contract is authorized in the Regulations for four-year BS Information Technology, BS Computer Science and BS Entertainment and Multimedia Computing. The student shall submit this contract for approval at the college*



*responsible for the thesis in accordance with the deadlines stipulated. Any changes to the contract during its duration (e.g. syllabus, adviser, leave of absence/extension, etc.) should be processed by the college.*

**1. STUDENTS DETAILS** (Last Name, First Name, Middle Initial)

Member 1:

Dinio, Davilyn F.

Member 2:

Ilao, John Vincent S.

Member 3:

Lazo, Rolando Allan A.

Member 4:

Mendoza, Marissa P.

**2. ADVISER(S)**

*State the name of the principal adviser and any co-adviser(s) or external adviser(s). The principal adviser has the overall responsibility for following up the contract on behalf of the college and ensuring the student receives academic supervision for the entire duration of the contract. The student has the right to receive academic supervision during the period he/she shall work on their undergraduate thesis (in accordance with the programme description). If the adviser plans to have a sabbatical during the duration of the contract, the student should be informed of this at the time of entering into the contract.*

**Principal adviser:**

  
Cherry A. Collera

**Office address / Phone / Email:**

237-2010

**Co-/external adviser:**

\_\_\_\_\_

**3. THESIS PROJECT**

**a.) Working Title**

Bataan Online Pet Breeding Management Portal

*The copy of the approved Title Proposal should be attached. It should include:*

- Research Problems
- Objectives
- Methodology
- Schedule/timetable

Technical/scientific partners (if any)

**b.) Implementation of Thesis Project:**

*Each group member takes responsibility for the project's objectives. All students are entitled to implement their theses on a group basis which will consist of 2-4 members. However, 5 members will be permitted if the class populations exceed the grouping requirements.*

**Group project with \_4\_ members**

**c.) Timetable for Thesis Project:**

- Date of Approval – Title Defense      **September 25, 2019**
- Date of Approval – Proposal Defense      **December 02, 2019**
- Date of Approval – Final Defense
- Date of Book Submission

**d.) Planned Progress:**

*For part-time students, the academic progress must constitute a minimum 80 %. Undergraduate theses of 30 credits should normally be implemented on a full-time basis. Students who have engagements as part-time lab assistants and equivalent may apply for the length of study to be adjusted.*

- Full-time student (100%)
- Part-time student      \_ %

**4. REQUIREMENTS FOR EQUIPMENT/RESOURCES**

*In the event that resources at an external institution shall be used, this must be specified in point 6 b)*

**a.) The student's place of work (office/lab):**

**b.) Requirements for equipment/resources:**

*Will, there be a requirement for (any of) the following resources during the thesis project:*

**Access to/purchase of equipment or software**

**Please specify:**

**Access to systems**

**Please specify:**

**Access to background information and data(set)**

**Please specify:**

**Expenses (if any):**

**Approved by the person responsible for resources at the college:**

**Approved by the person responsible for resources at the external institution:**

**5. NOTES**

**6. SIGNATURES**

*The student, principal adviser, other advisers, and college dean have reached agreements concerning all points covered in the contract.*

**Student/Date:**

**Principal Adviser/Date:**

**Co-/External Adviser/Date:**

**Co-/External Adviser/Date:**

**College Dean:**

# APPENDIX D

# LETTER OF INTENT

July 18, 2021

**Dr. Job Rafael Venturina**

Veterinary Doctor

Salubrious Top Tails Animal Clinic and Grooming Center

Balagtas Orion, Bataan

Dear Doc:

Good day!

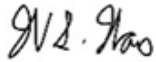
We, the 4th year students of Bachelor of Science in Information Technology major in Network and Web Application, are currently enrolled in ICTC2023 (Capstone Project I) course and co-requisite course code (ICTC2113-Capstone Project 2) courses. The final requirement of this course is to create a Bataan Online Pet Breeding Management Portal

Since we are instructed to identify an establishment that will need computerization for their operations, we have identified your establishment as our base company for the creation of a (Bataan Online Pet Breeding Management Portal). In this line, we would like to propose that we will be creating and developing a system that will help the company, employees, and the clients. We will start development of the system, no cost on your part, once you allow us to pursue the proposed project. There will be a **Memorandum of Agreement** between the two parties, you as the client and BPSU when you decide to use the finished project.

We are looking forward to working with you in the coming days. We are hoping that we can be partners for this endeavor.

Thank you very much and more power!

Very truly yours,



Ilao, John Vincent S.



Mendoza, Marissa P.



Lazo, Rolando Allan A.



Dinio, Davilyn F.

Endorsed by:



**Cherry A. Collera, PhD**

ICTC2023 Instructor

Noted by:

**Cristina G. Rivera, MSCS**

Approved by:

**Doc. Job Rafael Venturina**

Owner of Salubrious Top Tails Animal Clinic and Grooming Center

# APPENDIX E

# **PRE-SURVEY RESULTS/ TRANSCRIPT OF INTERVIEW**

**Title of the study :** Bataan Online Pet Breeding Management Portal

**Date and Time :** July 21, 2021 10:50 AM

**Venue:** Balagtas Orion, Bataan

**Proponent :** How many months or years can a dog or cat be allowed to breed?

**Interviewee:** 4 to 6 months cats and dogs will start to feel heat, but then they are still not fit for breeding since their uterus itself is not yet capable or they are just experiencing the early stage of estrus. Before we breed them we recommend them for a vaccination program, wherein deworming must be completed and all vaccination.

**Proponent:** Do they need to test their blood?

**Interviewee :** We can run a blood test to the male pet to assure that it is healthy before the mating. Within 1 to 21 days, 9 days is their most standing heat or the estrus. They can now proceed in mating wherein ovaries will meet the sperm during the gestation period, the pregnant pet should take a supplement for calcium during the fetal development, the fetal fetus already taking calcium from the mother to have a fetal skeleton. They also need to take milk enhancers, since some pregnant pets don't produce that much milk.

**Proponent :** Do you have a form to fill out for pet information?

**Interviewee :** Do we have a form to fill out? Well, we haven't had one since when they brought their pet, usually the reason is for a vaginal smear, that is the time wherein we will look under the microscope if they are already estrus like what i've said earlier, on the 9th day of estrus this is the most standing heat of them. But in form? Well we only ask for the date, name, address, contact number, patient breed and gender. We also look for the patient or pet history,



date, weight and temperature.

**Proponent :** So they will bring their pet here? And fill out this information?

**Interviewee :** yes, that is the only information we take from them so we can also have a record of their information and this is the recommended vaccination for dogs.

**Proponent :** Thankyou po Doc

Recommended Deworming and Vaccination for Dogs		
	2 weeks	1 <sup>st</sup> Deworming + Multivitamins
	1 month	2 <sup>nd</sup> Deworming
	1 month and 2 weeks	3 <sup>rd</sup> Deworming
		1 <sup>st</sup> Vaccine (5in1)
	2 months	2 <sup>nd</sup> Vaccine (5in1)
	2 months and 2 weeks	3 <sup>rd</sup> Vaccine (6in1)
	3 months	4 <sup>th</sup> Deworming
		4 <sup>th</sup> Vaccine (6in1)
		Anti-Rabies
	3 months and 2 weeks	1 <sup>st</sup> Anti-Kennel Cough
	4 months	2 <sup>nd</sup> Anti-Kennel Cough
		Anti-Tick and Flea Spot On
	5 months	Anti-Tick and Flea Oral
	6 months	Heartworm Prevention
	Every 2-3 months	Regular Deworming
	Annual	6in1, Anti-Rabies and Anti-Kennel Cough

**Notes:**

It is strongly recommended to AVOID EXPOSING your pet to any strenuous activities  
( at least ) 2 days after vaccination.

Always check and update your pet's vaccination & deworming schedule.  
PREVENTION is always BETTER..... and CHEAPER, than CURE.



# APPENDIX F

# TOPICAL OUTLINE

Topical Outline

## ***Bataan Online Pet Breeding Management Portal***

### **1. INTRODUCTION**

- 1.1 Pet Breeding
- 1.2 Pet Breeding Management
- 1.3 Online Pet Breeding
- 1.4 Pet Breeding Portal

### **2. BASIC CONCEPTS**

- 2.1 Database Management System
- 2.2 Web Programming
- 2.3 2D Mapping

### **3. EVALUATION SCHEME**

#### 3.1 ISO 25010

##### 3.1.1 Functional Suitability

3.1.1.1 Functional completeness - Degree to which the set of functions covers all the specified tasks and user objectives.

3.1.1.2 Functional correctness - Degree to which a product or system provides the correct results with the needed degree of precision.

3.1.1.3 Functional appropriateness - Degree to which the functions facilitate the accomplishment of specified tasks and objectives.

### 3.1.2 Performance Efficiency

3.1.2.1 Time behavior - Degree to which the response and processing times and throughput rates of a product or system, when performing its functions, meet requirements.

3.1.2.2 Resource utilization - Degree to which the amounts and types of resources used by a product or system, when performing its functions, meet requirements

3.1.2.3 Capacity - Degree to which the maximum limits of a product or system parameter meet requirements.

### 3.1.3 Compatibility

3.1.3.1 Co-existence - Degree to which a product can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product

3.1.3.2 Interoperability - Degree to which two or more systems, products or components can exchange information and use the information that has been exchanged.

### 3.1.4 Usability

3.1.4.1 Appropriateness recognizability - Degree to which users can recognize whether a product or system is appropriate for their needs.

3.1.4.2 Learnability - Degree to which a product or system can be used by specified users to achieve specific goals of learning to use the product or system

with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use.

3.1.4.3 Operability - Degree to which a product or system has attributes that make it easy to operate and control.

3.1.4.4 User error protection. Degree to which a system protects users against making errors.

3.1.4.5 User interface aesthetics - Degree to which a user interface enables pleasing and satisfying interaction for the user.

3.1.4.6 Accessibility - Degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.

3.1.5 Reliability

3.1.5.7 Functional completeness - Degree to which the set of functions covers all the specified tasks and user objectives.

3.1.5.8 Functional correctness - Degree to which a product or system provides the correct results with the needed degree of precision.

3.1.5.9 Functional appropriateness - Degree to which the functions facilitate the accomplishment of specified tasks and objectives.

### **3.1.5 Reliability**

3.1.5.1 Maturity - Degree to which a system, product or component meets

needs for reliability under normal operation.

3.1.5.2 Availability - Degree to which a system, product or component is operational and accessible when required for use.

3.1.5.3 Fault tolerance - Degree to which a system, product or component operates as intended despite the presence of hardware or software faults.

3.1.5.4 Recoverability - Degree to which, in the event of an interruption or a failure, a product or system can recover the data directly affected and re-establish the desired state of the system.

### **3.1.6 Security**

3.1.6.1 Confidentiality - Degree to which a product or system ensures that data are accessible only to those authorized to have access.

3.1.6.2 Integrity - Degree to which a system, product or component prevents unauthorized access to, or modification of, computer programs or data.

3.1.6.3 Non-repudiation - Degree to which actions or events can be proven to have taken place so that the events or actions cannot be repudiated later.

3.1.6.4 Accountability - Degree to which the actions of an entity can be traced uniquely to the entity.

3.1.6.5 Authenticity - Degree to which the identity of a subject or resource can be proved to be the one claimed.

### **3.1.7 Maintainability**

3.1.7.1 Modularity - Degree to which a system or computer program is composed of discrete components such that a change to one component has minimal impact on other components.

3.1.7.2 Reusability - Degree to which an asset can be used in more than one system, or in building other assets.

3.1.7.3 Analysability - Degree of effectiveness and efficiency with which it is possible to assess the impact on a product or system of an intended change to one or more of its parts, or to diagnose a product for deficiencies or causes of failures, or to identify parts to be modified.

3.1.7.4 Modifiability - Degree to which a product or system can be effectively and efficiently modified without introducing defects or degrading existing product quality.

3.1.7.5 Testability - Degree of effectiveness and efficiency with which test criteria can be established for a system, product or component and tests can be performed to determine whether those criteria have been met.

### **3.1.8 Portability**

3.1.8.1 Adaptability - Degree to which a product or system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or usage environments.

3.1.8.2 Installability - Degree of effectiveness and efficiency with which a



product or system can be successfully installed and/or uninstalled in a specified environment.

3.1.8.3 Replaceability - Degree to which a product can replace another specified software product for the same purpose in the same environment.

## **4. SIMILAR MACHINES / APPLICATIONS**

### **3.1 Breeder Cloud Pro**

Breeder Cloud Pro is a kennel management solution designed to help businesses handle workflows, documents, pets' information, finances and more. Administrators can use the centralized dashboard to view upcoming dog litters, active dams, kennel visitors, yearly income and scheduled appointments. Breeder Cloud Pro allows kennels to store reports, images, documents, notes and medical records for each dog or litter in a repository. Professionals can create websites and photo galleries to promote their kennel and establish brand identity with clients. Additionally, supervisors can quickly access dogs' information on multiple devices and receive notifications or reminders about upcoming appointments via email or text.

Features:

1. Intuitive Dashboard for an overview of your kennel – Easily view upcoming heats, upcoming litters and manage scheduled appointments for your puppies.
2. Notification for treatments and appointments – Receive text email remainders when it's time for your puppies next appointments and creating

waiting lists for interested clients.

3. Access your dog information on any device – Enjoy quick access to manage your medical records and more from your desktop and mobile devices.
4. Unlimited photo and document storage - Store medical records, reports, photos and more every dog, litter and contact with no limited storage.
5. Organize your kennel and improve workflow – Manage your litters the easy way and create medical reports or manage owners for your puppies.
6. Financial Management Solution – Enter your kennel experiences and puppy sales with month to month growth charts and profit at a glance.
7. Pedigree database builder – Search our existing and continually growing database to find your dog's pedigree for up to 6 generations.
8. Personal Website builder – Create your own website and photo galleries to promote kennel.
9. Contract with electronic signature – Create sale and health contracts to send directly to buyers for electronic signature.

### **3.2. Dog breeder Pro**

Dog breeder Pro is a web based dog breeding software. Its goal is simply to build the best dog breeding software. It has standard and premium versions. In standard version it includes the main functionality of the application:

- Record keeping (dogs and contacts, health, breeding, pedigree)

- Dashboard
- Customized pedigrees
- Calendar
- Email reminders

In premium version it includes everything in the standard version plus:

- Puppy waiting list
- Financials
- Heat forecasting
- Trial matings
- Coat color forecasting
- Progeny, siblings, ancestor analysis reports

Features:

1. Streamline your business- Manage your dogs and contacts, advanced dashboard, integrated calendar (Outlook, Google Calendar, etc.), email reminders, keep track of your income and expenses, generate AKC Dog Record and medical reports.
2. Puppy waiting list - Manage your dogs and contacts, advanced dashboard, integrated calendar (Outlook, Google Calendar, etc.), email reminders, keep track of your income and expenses, generate AKC Dog Record and medical reports.
3. Professional pedigrees - Create fully customizable pedigrees with your own color scheme and logo. Choose which data to show, whether to include

photos, and the number of generations. Show champions in red, highlight duplicates. Print to PDF or JPG.

4.     Manage your kernel - Record vaccinations and deworming, medical conditions, vet visits. Record heats, matings, pregnancy information, litters. Automatically calculate upcoming heats, expected litter dates.

5.     Breed better dogs - Build unlimited pedigrees. Automatically calculates Wright's Coefficient of Inbreeding (COI) and AVK (5 and 10 generation). Create trial matings with Wright's COI and printed pedigree. Forecast puppy coat colors using the dam and sire genotypes. Progeny report, siblings report, ancestor analysis report (% of blood).

6.     Safe, secure, accessible - Web-based software, so you does not need to install anything. Usable on Windows, Mac and Linux. Mobile friendly, so you can use it on your smartphone or tablet. Hosted on Amazon's cloud, one of the best in the world. Your data is safe and secure, backed up on a daily basis.

### **3.3   Zooeasy**

Zooeasy is the software for every animal breeder. Choose animals and read about all special features for the registration of your animals. This application helps to improve breeding results. Keep tracks of all your animal data in the online database, through this software all of your data is accessible anytime and anywhere.

Features:

1. Managing your data: anytime, anywhere – the online database of Zooeasy is optimized for all devices.
2. Keep track of your animals - ZooEasy is perfect for the registration of all kinds of animals. Login to your account and register the unique features of your animals. Understand how your animals are related by pedigree and relationship calculations. Safely keep track of medical files and veterinary results. Print your own reports and save all show result information. You can even put contact information of other breeders into your database.
3. Improve breeding results - We help responsible breeders to improve breeding results. The more generations of animals you have stored in your database, the more accurate your breeding results will be. Use software of ZooEasy to simulate pedigrees of desired breeding pairs and you'll instantly see the inbreeding percentages and mean kinship (additional costs) in advance.
4. Perfect for all animals – the program is perfect for all kinds of animals. It is the perfect help for individual breeders, animal associations and zoos.
5. Maximum privacy for professional organizations - understand your need for privacy. Professional organizations and associations receive extra privacy features. All members will get their own username and password to access the database. Now they can only see what's important to them. Choose which data has to be shielded from your members, so confidential information is only visible for managers.
6. Customized reports for associations -the team develops customized

reports in the style of your organization.

## 5. DESIGN CONSIDERATIONS / CRITERIA IN TERMS OF RELIABILITY

### 4.1 Software Requirements

4.1.1 Visual Studio Code – for coding backend and frontend

4.1.2 Adobe Dreamweaver – for UI Checking

4.1.3 Photoshop 2019 – for graphics creation

4.1.4 Firebase – for Database Management

4.1.5 Windows 10 – manage all the software and hardware on the computer.

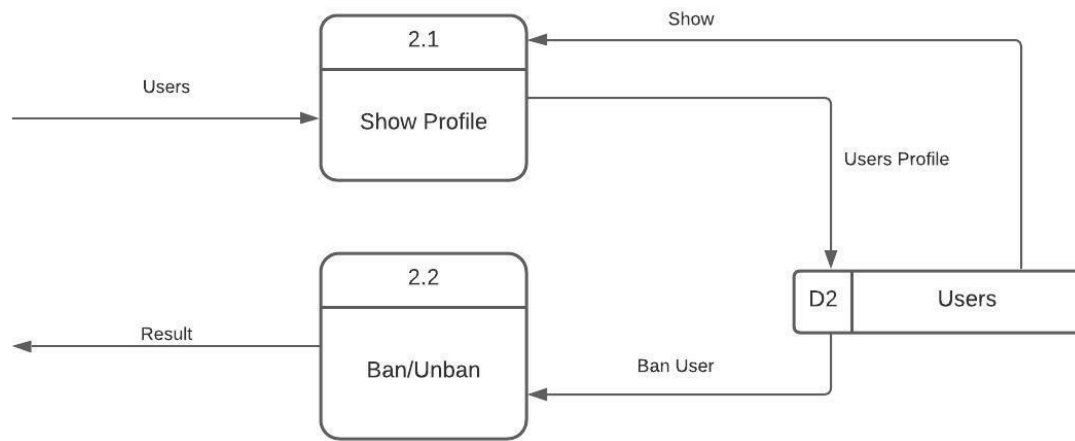
### 4.2 Hardware Requirements

4.2.1 Desktop

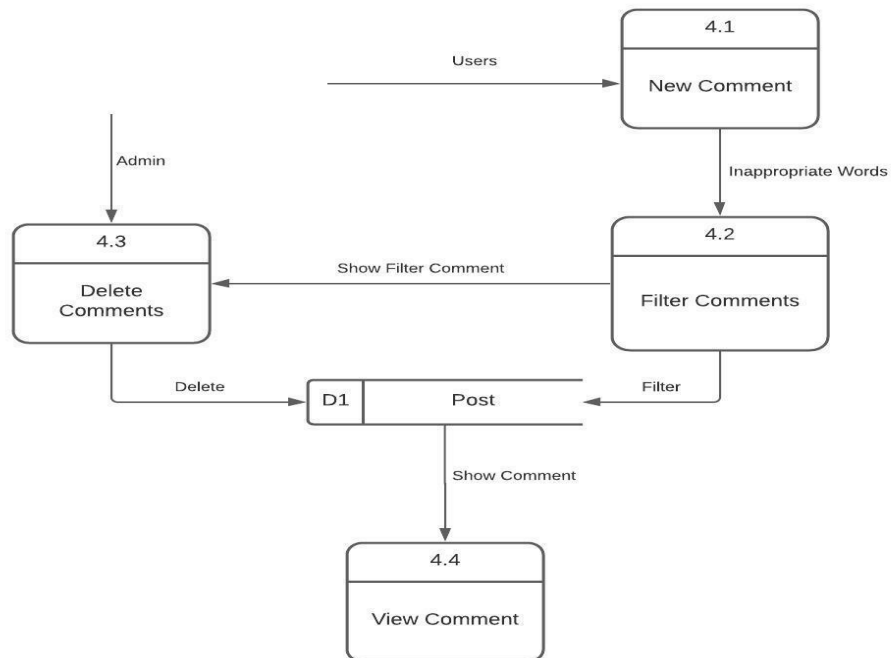
4.2.2 Router

# APPENDIX G

## **CHILD DIAGRAMS**

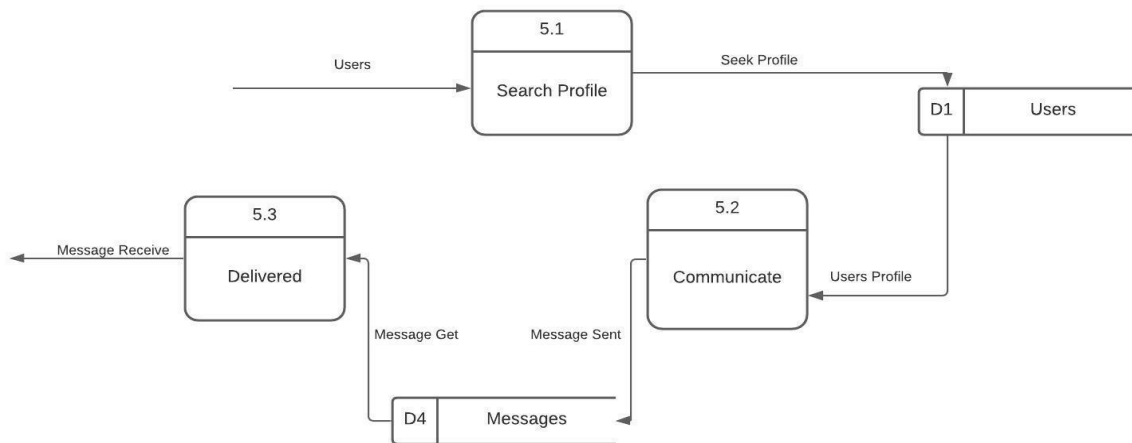


**Figure 17.** Child Diagram of Ban and Unban as Admin

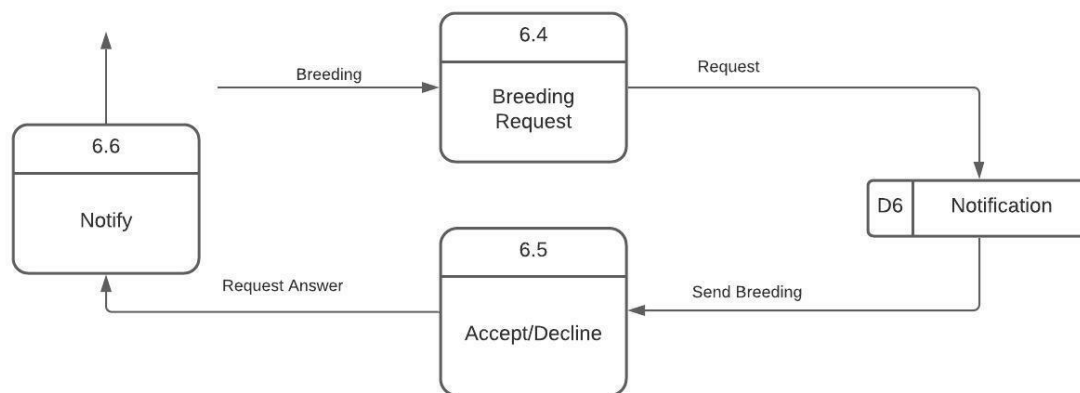


**Figure 18.** Child Diagram of Deleting Comment as Admin





**Figure 19.** Child Diagram of Messaging



**Figure 20.** Child Diagram of Accept or Decline the Request

# APPENDIX H

# **DATA DICTIONARY**

## Data Dictionary

Data Dictionary				
System Name : Bataan Online Pet Breeding Management Portal				
Subject : Notification				
PK	FK	Field Name	Data Type	Description
Yes	No	notifID	Number	Notification ID
	Yes	breedID	Number	Breed ID
	No	from	String	User sent notif
	No	to	String	User receive notif
	No	title	String	Title of breeding
	No	viewedByReceiver	String	Name of users receive
	No	timestamp	timestamp	Time of send notif
Convo				
	No	id	Number	Convo ID
	No	data	String	Users info
	No	receiver	String	Users receiver
	No	timestamp	timestamp	Time of sent

Data Dictionary

System Name : Bataan Online Pet Breeding Management Portal				
Subject : Pets				
PK	FK	Field Name	Data Type	Description
Yes	No	petID	Number	Pet ID
	Yes	owner	String	Name of owner
	No	name	String	Name of pet
	No	bgColor	String	Pet background color
	No	bdate	Date	Pet Birthday
	No	timestamp	timestamp	timestamp
	No	furColor	String	Pet color
	No	eyeColor	String	Pet eye color
	No	desc	String	Pet Description
	No	Gender breed	String	Pet Gender
	No	species	String	Dog or Cat
Likes				
	No	id	Number	Likes ID
	No	liker	String	Users liker

	No	timestamp	timestamp	timestamp
Rates				
	Yes	BreedID	Number	Pet ID
	No	desc	String	Description
	No	rateID	Number	Rate ID
	No	rater	String	Name of users
	No	value	Number	Rate value
	No	timestamp	timestamp	Time of rate
healthDocs				
	No	doc	String	Documentation
	No	type	String	Type of pets
	No	confirmed	String	Confirmed Docs
	No	timestamp	Timestamp	Time of confirmed

Data Dictionary				
System Name : Bataan Online Pet Breeding Management Portal				
Subject : Post				
PK	FK	Field Name	Data Type	Description
Yes	No	postid	Number	Number of post

	Yes	postByid	String	Post ID
	No	imgLink	String	User Image Post
	No	timestamp	timestamp	Time of post
	No	tags	String	Tags
	No	desc	String	Description
Comments				
	No	id	Number	Comment ID
	No	data	String	Users info
	No	receiver	String	Users receiver
	No	timestamp	timestamp	Time of sent
Likes				
	No	id	Number	Like ID
	No	data	String	Users info
	No	receiver	String	Users receiver
	No	timestamp	timestamp	Time of sent

# APPENDIX I

# Evaluation Instrument

Good day!

We are currently developing our project entitled *Bataan Online Pet Breeding Management Portal*. Please evaluate our system based on the criteria below. Thank you.

<b>NAME:</b> _____	<b>AGE:</b> _____
<b>COMPANY/SCHOOL:</b> _____	<b>COURSE/POSITION:</b> _____

INSTRUCTION: Read each question carefully and check (/) the corresponding number of choices.

5 – EXCELLENT    4 – VERY GOOD    3 – GOOD    2 – FAIR    1 – POOR

\* Please use appropriate ratings for performance testing

FUNCTIONAL SUITABILITY	5	4	3	2	1
The system covers all the specified tasks and user objectives.					
The system provides the correct results with the needed degree of precision					
The system facilitates the accomplishment of specified tasks and objectives.					
PERFORMANCE EFFICIENCY					
The response and processing times of the system meet the requirements.					



The amounts and types of resources used by the system meet requirements					
The maximum limits of the system meet requirements.					
<b>COMPATIBILITY</b>					
The system can perform its required functions efficiently while sharing a common environment and resources with other systems.					
The system or system components can exchange information to other systems.					
<b>USABILITY</b>					
The system is appropriate to the needs of the user.					
The system can be used by specified users with effectiveness, efficiency, freedom from risk and satisfaction.					
The system has attributes that make it easy to operate and control.					
The system protects users from making errors.					
The user interface enables pleasing and satisfying interaction for the user.					
The system can be used by people with the widest range of characteristics and capabilities.					

RELIABILITY					
The system meets needs for reliability under normal operation.					
The system is operational and accessible when required for use.					
The system operates as intended despite the presence of hardware or software faults.					
The system can recover affected data and re-establish the desired state.					
SECURITY					
The system ensures that data are accessible only to those authorized to have access.					
The system prevents unauthorized access to, or modification of, computer programs or data.					
The actions or events can be proven to have taken place and cannot be rejected later.					
The actions of users can be traced.					
The identity of a user can be authenticated and proved to be the one claimed.					
MAINTAINABILITY					

The system is composed of modules such that a change to one component has minimal impact on other components.					
A system component can be used in more than one system, or in building other components.					
The system can be assessed and diagnosed for deficiencies or errors.					
The system can be effectively and efficiently modified without introducing defects or degrading quality.					
The system can be tested to determine whether test criteria have been met.					
<b>PORTABILITY</b>					
The system can effectively and efficiently be adapted for different or evolving hardware or software environments.					
The system can be successfully installed and/or uninstalled in a specified environment.					
The system can replace another specified software product for the same purpose in the same environment.					

Are you in favor in implementing the **Bataan Online Pet Breeding Management Portal**

\_\_\_\_\_YES

\_\_\_\_\_NO

**Comments and Suggestions:**\_\_\_\_\_

**Proponents:**

**Dinio, Davilyn F.**

**Ilao, John Vincent S.**

**Lazo, Rolando Allan A.**

**Mendoza, Marissa P.**

***BSIT-NW4C***

# APPENDIX J

# Summary of Evaluation Results

SUMMARY OF EVALUATION RESULTS									
CRITERIA	5	4	3	2	1	TOTAL RESPONDENTS	SUB CRITERION MEAN	CRITERION MEAN	DESCRIPTIVE INTERPRETATION
<b>Functional Suitability</b>									
Functional Completeness	32	13	5	0	0	50	4.54		Excellent
Functional Correctness	29	18	3	0	0	50	4.52		Excellent
Functional Appropriateness	33	13	4	0	0	50	4.58		Excellent
								4.55	Excellent
<b>Performance Efficiency</b>									
Functional Completeness	28	19	3	0	0	50	4.50		Very Good
Functional Correctness	31	14	5	0	0	50	4.52		Excellent
Functional Appropriateness	32	14	4	0	0	50	4.56		Excellent
								4.53	Excellent
<b>Compatibility</b>									
Co-existence	31	15	4	0	0	50	4.54		Excellent
Interoperability	25	19	6	0	0	50	4.38		Very Good
								4.46	Very Good
<b>Usability</b>									
Appropriateness Recognizability	31	16	3	0	0	50	4.56		Excellent
Learnability	32	13	5	0	0	50	4.54		Excellent
Operability	32	14	4	0	0	50	4.56		Excellent
User Error Protection	26	18	6	0	0	50	4.40		Very Good
User Interface Aesthetics	32	14	4	0	0	50	4.56		Excellent
Accessibility	34	11	5	0	0	50	4.58		Excellent
								4.53	Excellent
<b>Reliability</b>									
Maturity	31	15	4	0	0	50	4.54		Excellent

<b>Maintainability</b>									
Modularity	31	14	5	0	0	50	4.52		Excellent
Reusability	30	15	5	0	0	50	4.50		Very Good
Analysability	25	16	9	0	0	50	4.32		Very Good
Modifiability	29	16	5	0	0	50	4.48		Very Good
Testability	27	19	4	0	0	50	4.46		Very Good
								<b>4.46</b>	Very Good
<b>Portability</b>									
Adaptability	29	16	5	0	0	50	4.48		Very Good
Installability	31	13	6	0	0	50	4.50		Very Good
Replaceability	30	17	3	0	0	50	4.54		Excellent
								<b>4.51</b>	Very Good
<b>Overall Result</b>								<b>4.49</b>	<b>Very Good</b>

# APPENDIX K

# WEEKLY

# **PROGRESS REPORT**

# Weekly Progress Report

DATE : March 23, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (.5%)**

Date: March 23, 2021  
Finished Activity: \_\_\_\_\_  
Description: Information about the system that is going to be made. Jotting possible features as well those that haven't been implemented to other same systems.  
  
Date: \_\_\_\_\_  
Next Activity: \_\_\_\_\_  
Description: \_\_\_\_\_

## **DOCUMENTATION: (.5%)**

Date: March 23, 2021  
Finished Activity: Topical Outline  
Description: This includes what could possibly be the content of the introduction as well the software and hardware that are gonna be used in the project. A scheme model and a sample of similar system of the project, identifying how it differ from them  
  
Date: \_\_\_\_\_  
Next Activity: Chapter 1  
Description: \_\_\_\_\_



# Weekly Progress Report

DATE : March 31, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (2%)**

Date: March 31, 2021

Finished Activity: Outline

Description: An outline for the system. Of what is the possible outcome of the project. Preparing the software that will be use for the system.

Date: April 1- 7, 2021

Next Activity: Start of making the system

Description: It includes the homepage, and buttons,

## **DOCUMENTATION: (10%)**

Date: March 23, 2021

Finished Activity: Topical Outline

Description: Finishing chapter 1. --

Date: April 1-7, 2021

Next Activity: Chapter 2

Description: search and read related studies with the chosen topic. Do not forget to include citations.

# Weekly Progress Report

DATE : April 13, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (2%)**

Date: April 13, 2021

Finished Activity: User interface

Description: It includes the Log In, dashboard and button

Date: April 14, 2021

Next Activity: Other capabilities of the system

Description: It includes the buttons of the system,

## **DOCUMENTATION: (10%)**

Date: April 7, 2021

Finished Activity: Chapter 1

Description: Enable to finish chapter 1 by providing the lacking information. --

Date: April 14, 2021

Next Activity: Chapter 2

Description: Search and read related studies with the chosen topic. Do not forget to include citations.

# Weekly Progress Report

DATE : April 20, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (.5%)**

Date: April 20, 2021  
Finished Activity: User Interface  
Description: Buttons and other components.

Date: April 27, 2021  
Next Activity: Other capabilities.  
Description: Creating the other capabilities of the system.

## **DOCUMENTATION: (12%)**

Date: April 20, 2021  
Finished Activity: Chapter 2  
Description: Enable to finish the chapter 2 by providing the lacking information.

Date: April 27, 2021  
Next Activity: Chapter 2  
Description: Revising the Chapter 2

# Weekly Progress Report

DATE : April 27, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (30%)**

Date: April 27, 2021  
Finished Activity: Database, Authentication of user and Dashboard  
Description: The proposed system is still under processing but now the system have a database, authentication of user and also it has a dashboard.

Date: May 04, 2021  
Next Activity: UI Interface and Designing  
Description: Continuing UI Interface and Designing the System

## **DOCUMENTATION: (20%)**

Date: April 27, 2021  
Finished Activity: Chapter 2  
Description: Revision of Chapter 2

Date: May 04, 2021  
Next Activity: Chapter 3  
Description: Documentation of Chapter 3

# Weekly Progress Report

DATE : May 04, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (30%)**

Date: May 04, 2021  
Finished Activity: Database, Authentication of user and Dashboard  
Description: The proposed system is still under processing but now the system have a database, authentication of user and also it have a dashboard.

Date: May 11, 2021  
Next Activity: UI Interface and Designing.  
Description: Continuing UI Interface and Designing the System

## **DOCUMENTATION: (30%)**

Date: May 04, 2021  
Finished Activity: Chapter 3  
Description: Documentation of Chapter 3

Date: May 11, 2021  
Next Activity: Documentation of Chapter 3  
Description: Continuation of Documentation of Chapter 3

# Weekly Progress Report

DATE : May 11, 2021

FROM : **Group 3**  
**BSIT-NW3C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (5%)**

Date: May 11, 2021  
Finished Activity: Login  
Description: The proposed system is still under processing but now the system have a login form

Date: May 11, 2021  
Next Activity: Profile  
Description: The next capabilities is the profile, so that the pet breeders can view the profile.

## **DOCUMENTATION: (40%)**

Date: May 11, 2021  
Finished Activity: Chapter 1, 2 & 3  
Description: Revision of Chapter 1, 2 & 3

Date: May 11, 2021  
Next Activity: Finalize the documents  
Description: Finalizing the chapter 1, 2 & 3

# Weekly Progress Report

DATE : September 25, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (12.5%)**

Date: September 25, 2021  
Finished Activity: Suggestions by the panelist and some capabilities  
Description: The proposed system is still under processing and did the suggestions by the panelist for the developed system.

Date: October 6, 2021  
Next Activity: Capabilities A, B, C, D, E, F, and G  
Description: The developed system is under processing the capabilities.

## **DOCUMENTATION: (35%)**

Date: September 25, 2021  
Finished Activity: Chapter 1, 2 & 3  
Description: Revision of Chapter 1, 2 & 3

Date: October 6, 2021  
Next Activity: Chapter 1,2 & 3  
Description: Revision of Chapter 1, 2 & 3

# Weekly Progress Report

DATE : October 6, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (50%)**

Date: October 6, 2021  
Finished Activity: Capability 2, 4, and 5  
Description: The capability 2 and 5 are not yet completely done but still working on it.

Date: October 13, 2021  
Next Activity: Suggestions by the panelist and some capabilities  
Description: Capability 6, 7 and 8

## **DOCUMENTATION: (40%)**

Date: October 6, 2021  
Finished Activity: Table of Contents  
Description: Table of Contents, List of Figures, Abstract, Dedication, Acknowledgements

Date: October 13, 2021  
Next Activity: Table of Contents  
Description: Revision of Table of Contents



# Weekly Progress Report

DATE : October 13, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (48.75%)**

Date: October 13, 2021  
Finished Activity: Capability B, D and F  
Description: The capability B, D and F are not yet completely done but still working on it.

Date: October 20, 2021  
Next Activity: Capabilities A - H  
Description: The system is still under developing and also, we will do the suggestions of the panelist and our thesis adviser

## **DOCUMENTATION: (40%)**

Date: October 13, 2021  
Finished Activity: Preliminary Pages  
Description: Table of Contents, List of Figures, Abstract, Dedication, Acknowledgements

Date: October 20, 2021  
Next Activity: Bibliography  
Description: Bibliography Chapter 1, 2, & 3

# Weekly Progress Report

DATE : October 20, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (52.5%)**

Date: October 20, 2021  
Finished Activity: Capability B, E and F  
Description: The capability B is done, and the capability E and F are not yet completely done but still working on it.

Date: October 27, 2021  
Next Activity: Capabilities A, C, E, F, G H  
Description: The system is still under developing and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (53%)**

Date: October 20, 2021  
Finished Activity: Chapter 4  
Description: Documentation of Chapter 4

Date: October 27, 2021  
Next Activity: Chapter 4  
Description: Revision of Chapter 4

## **Weekly Progress Report**

DATE : October 27, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (52.5%)**

Date: October 27, 2021  
Finished Activity: Capability B, D and E  
Description: The capability B, D and E is done, and the other capability are not yet completely done but still working on it.

Date: November 5, 2021  
Next Activity: Capabilities A, C, F, G, H  
Description: The system is still under developing and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (53%)**

Date: October 27, 2021  
Finished Activity: Chapter 4  
Description: Documentation of Chapter 4

Date: November 5, 2021  
Next Activity: Chapter 4  
Description: Revision of Chapter 4

## **Weekly Progress Report**

DATE : November 5, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (57.5%)**

Date: November 5, 2021  
Finished Activity: Capability B, D and E  
Description: The capability B, D and E is done, and the other capability are not yet completely done but still working on it.

Date: November 12, 2021  
Next Activity: Capabilities A, C, F, G, H  
Description: The system is still under developing and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (74%)**

Date: November 5, 2021  
Finished Activity: Chapter 4  
Description: Documentation of Chapter 4

Date: November 12, 2021  
Next Activity: Chapter 4  
Description: Revision of Chapter 4

## **Weekly Progress Report**

DATE : November 12, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (57.5%)**

Date: November 12, 2021  
Finished Activity: Capability A-G  
Description: The capability A - G are working but there are other capabilities are not yet completely done but still working on it.

Date: November 18, 2021  
Next Activity: Capabilities H  
Description: The capability h is not yet working, and the other capabilities need to fix and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (74%)**

Date: November 12, 2021  
Finished Activity: Chapter 4  
Description: Documentation of Chapter 4

Date: November 18, 2021  
Next Activity: Chapter 4  
Description: Revision of Chapter 4

## **Weekly Progress Report**

DATE : November 18, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (64.38%)**

Date: November 18, 2021  
Finished Activity: Capability A-G  
Description: The capability A - G are working but there are other capabilities are not yet completely done but still working on it.

Date: December 02, 2021  
Next Activity: Capabilities H  
Description: The capability h is not yet working, and the other capabilities need to fix and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (74%)**

Date: November 18, 2021  
Finished Activity: Chapter 4  
Description: Documentation of Chapter 4

Date: December 02, 2021  
Next Activity: Chapter 4  
Description: Revision of Chapter 4

## **Weekly Progress Report**

DATE : December 02, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (83.75%)**

Date: December 02, 2021  
Finished Activity: Capability A, F and H  
Description: For capability A the guest is now working, then if the guest wants to create an account, then it can only choose sign in as a pet owner. Then the admin is now working, it can ban the users, post announcements. The pet owner and pet breeder can decline the request of breeding then it can type the reason of declining. The Feedback and the average rating are now working,

Date: December 08, 2021  
Next Activity: Capabilities F & H  
Description: The 2D mapping is not totally fine and the other capabilities need to fix and also, we will do the suggestions of the panelist and our thesis adviser

**DOCUMENTATION: (74%)**

Date: December 02, 2021  
Finished Activity: Chapter 5  
Description: Summary of Findings, Conclusions and Recommendations

Date: December 08, 2021  
Next Activity: Chapter 5  
Description: Revision of Chapter 5





# Weekly Progress Report

DATE : December 08, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

## **SOFTWARE: (87.50%)**

Date: December 08, 2021  
Finished Activity: Capability C & F  
Description: The admin is now working, but the user can open their accounts while they're banned. The location is already working but the location you entered in the registration is not yet accurate.

Date: December 10, 2021  
Next Activity: Capability C, F and H  
Description: If the user is banned it can't open its account. The veterinarian's capability in our system is still being adjusted. The location is not totally fine.

## **DOCUMENTATION: (80%)**

Date: December 08, 2021  
Finished Activity: Chapter 5  
Description: Revision of Chapter 5

Date: December 10, 2021  
Next Activity: Appendices  
Description: The next thing we will do is appendices after revising Chapter 5.

# Weekly Progress Report

DATE : December 10, 2021

FROM : **Group 3**  
**BSIT-NW4C**  
**BATAAN ONLINE PET BREEDING MANAGEMENT PORTAL**

RE : **PROGRESS STATUS REPORT**

---

**SOFTWARE: (91%)**

Date: December 10, 2021  
Finished Activity: Capability C & F  
Description: The admin is now working completely. It can ban the user and the user cannot open its account. The 2D mapping is already working.

Date: December 10, 2021  
Next Activity: Capability H  
Description: The veterinarian's capability in our system is still being adjusted. The count of users who gave the rating. In the future, it will show the pet who got the highest rating.

**DOCUMENTATION: (80%)**

Date: December 10, 2021  
Finished Activity: Chapter 5  
Description: Revision of Chapter 5

Date: December 10, 2021  
Next Activity: Appendices  
Description: The next thing we will do is appendices after revising Chapter 5.

# APPENDIX L

# **COMPLETION CHECKLIST**

**MAIN CAMPUS**

College of Information and Communications Technology

City of Balanga, 2100 Bataan

(047) 237-2010 | [www.bpsu.edu.ph](http://www.bpsu.edu.ph) | [bpsu.cict2016@gmail.com](mailto:bpsu.cict2016@gmail.com)**COMPLETION CLEARANCE FOR THESIS OR CAPSTONE****STUDENT INFORMATION****NAME:****YEAR  
LEVEL:****PROGRAM:****MAJOR:****SEMESTER:****ACADEMIC YEAR:****COURSE TO COMPLETE****COURSE CODE:****COURSE TITLE:****RESEARCH TITLE:****PANELISTS NAME****SIGNATURE and DATE****PANEL A****PANEL B****PANEL C****NOTED BY:**\_\_\_\_\_  
Signature over Printed name of Adviser\_\_\_\_\_  
Signature over Printed name of Student

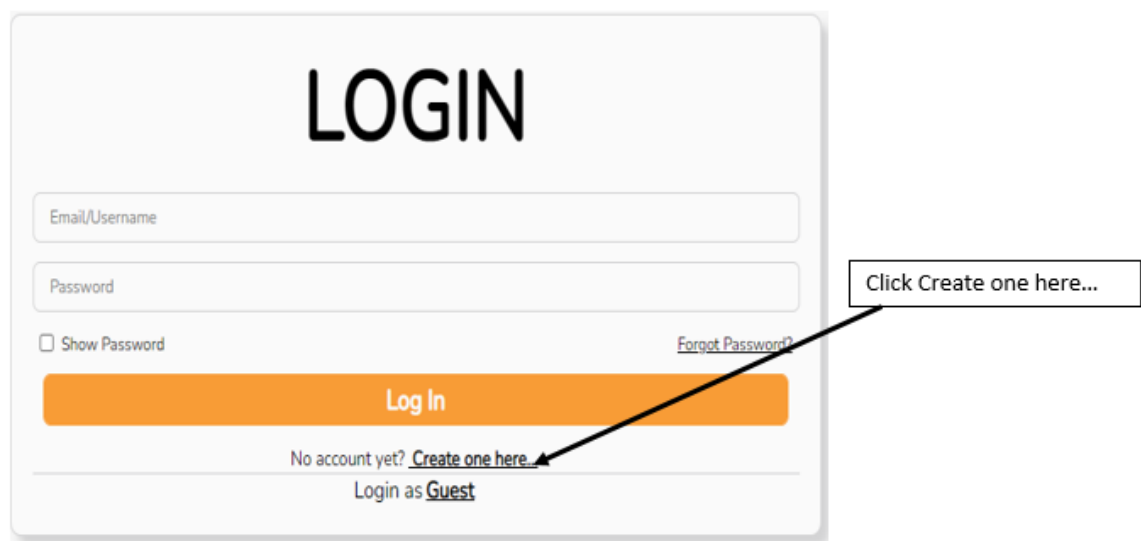
# APPENDIX M

# USER MANUAL

## How to use the Bataan Online Pet Breeding Management Portal

When you open the app, it will display the homepage of the app which also displays the mission, vision and some information of the application. You can also see the features, about us and login.

1. If you already have an account, just go to the login page and put your used email address and password.
2. If you are a new user;
  - a. Click the LOG-IN button.
  - b. Then click the create one here...



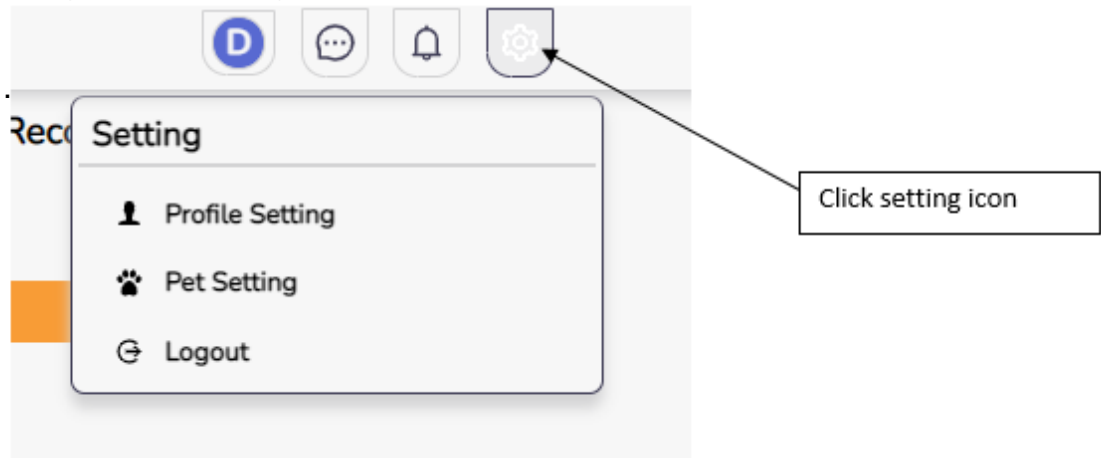
The screenshot shows a login form titled "LOGIN". It contains two input fields: "Email/Username" and "Password". Below the "Password" field is a checkbox labeled "Show Password" and a link labeled "Forgot Password?". A large orange button labeled "Log In" is positioned below the input fields. At the bottom of the form, there is a link "No account yet? Create one here." and a link "Login as Guest". An annotation box with the text "Click Create one here..." has an arrow pointing to the "Create one here." link.

- c. Fill up the information needed. Make sure to input all the information needed for it to be valid.
  - d. During the sign up, you will be asked what you are signing off. (Pet owner, Pet breeder, and Veterinarian).

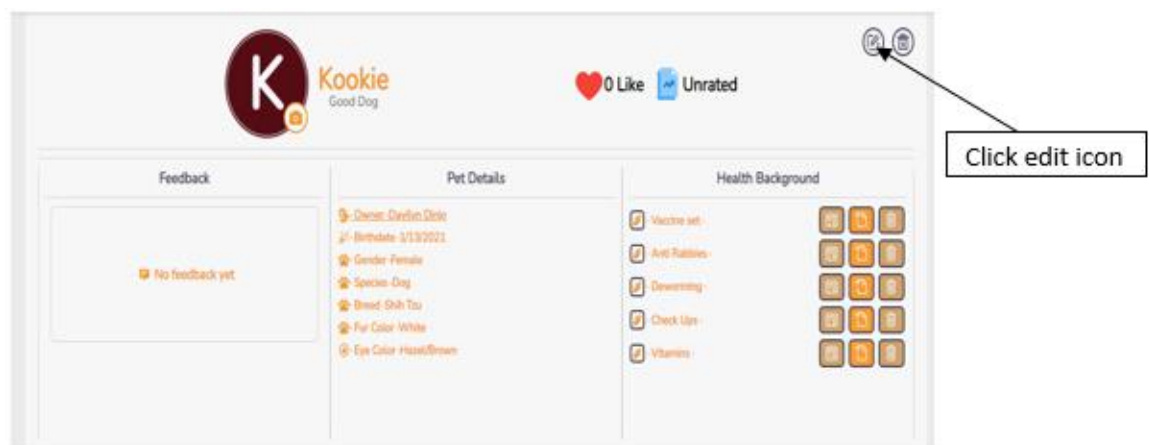
The image shows a 'Sign Up' form with the title 'Sign Up' in large black font. Below the title is a section titled 'User Information' in orange. A note says 'Field with \* are required:'. The form contains several input fields: 'First Name\*', 'Middle Name', 'Last Name\*', 'Birth Date\*' (with a calendar icon), 'Gender\*' (with a dropdown arrow), 'Email Address\*', 'Contact Number\*', 'Password\*', 'Confirm Password\*', and 'Address\*'. At the bottom left, there is a 'Sign in as\*' dropdown menu with a list of roles: 'Pet Owner', 'Pet Breeder', and 'Veterinarian'. To the right of this menu is an orange 'Sign In' button.

- e. After you complete the information needed you can now click the Sign In button and you will be redirected to the pet information page.
  - f. Then input your pet information including the background history. All information entered will be secured.
  - g. After that you can now click the home button and proceed to the newsfeed page where other user's posts can be seen.
3. If you want to post an announcement about pet breeding:
    - a. Just click "Write an announcement" then type the announcement.
    - b. After typing the announcement just click the "Add Announcements" button and it will post and the other users will see the announcement.
  4. If you like some announcements and pictures of pets that shown in the newsfeed, you have an ability to react and comments to that post, just click the like buttons then if you like to say something just click the comment button then it will show the comment box, type that what you wanted to say, after typing then click the submit button.

5. If you need to edit your information or your pet information, the user can just go to the settings

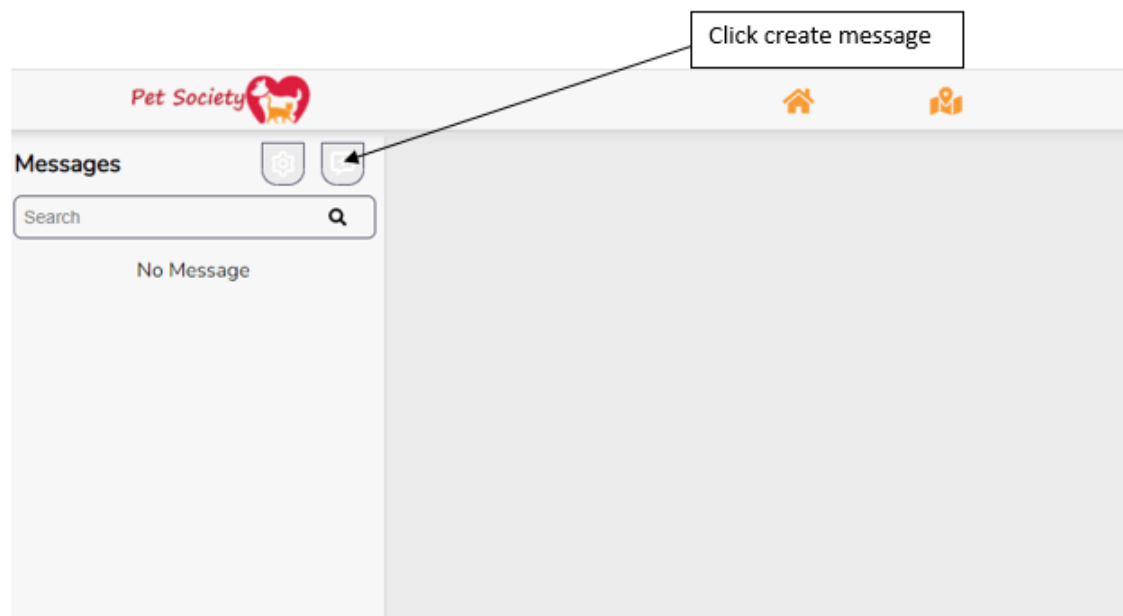
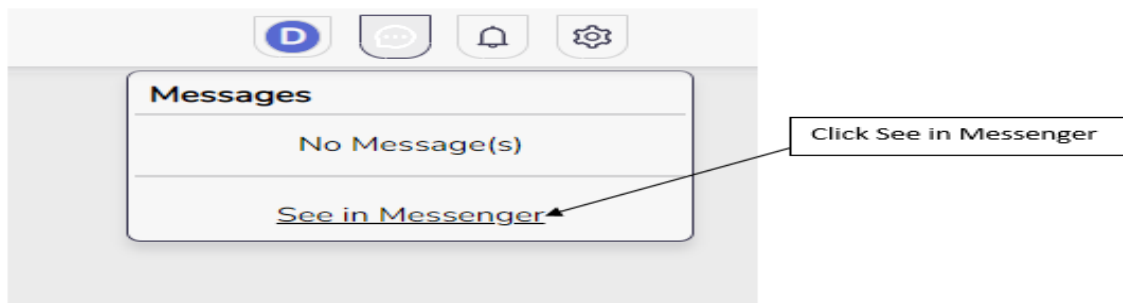


General Account Setting		
Name	Davilyn F Dinio	Change
Password	123456	Change
Birthdate	Sat Nov 13 1999	Change
Contact Number	09957150172	Change
Email Address	davilyndinio@gmail.com	Change
Map Location	Orion, 2102 Bataan, Philippines	Change

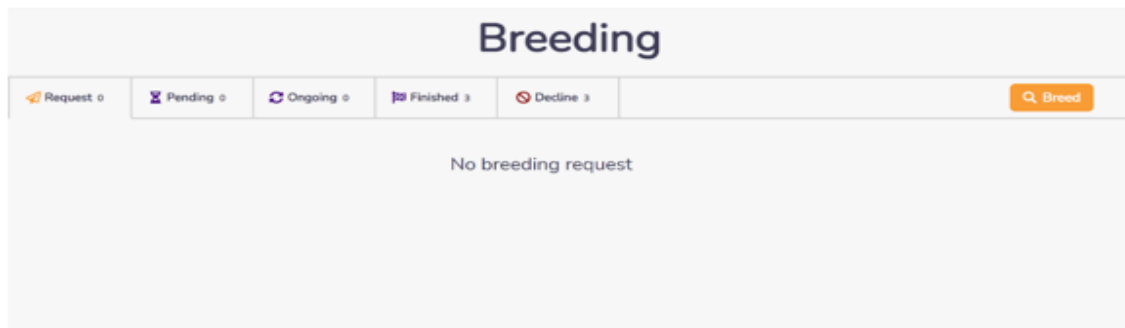


6. You can message other users in the portal through the message button.

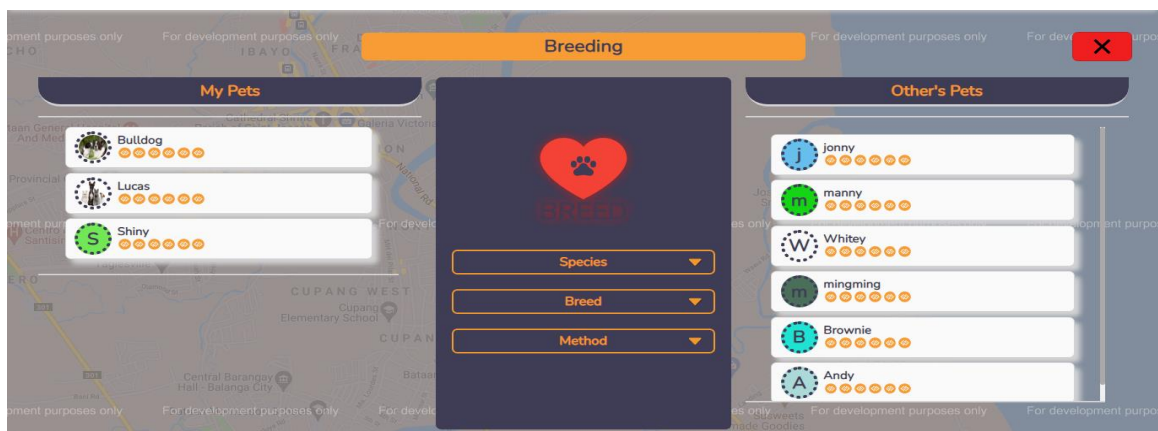




7. To find the person you want to message, you can use the search button in the message.
8. You can also check the location of all users through clicking the location button.
9. If you want to see the request, pending, ongoing, finished, and decline of the request breeding and also the search breed button for find breed, you can click the Breeding button.

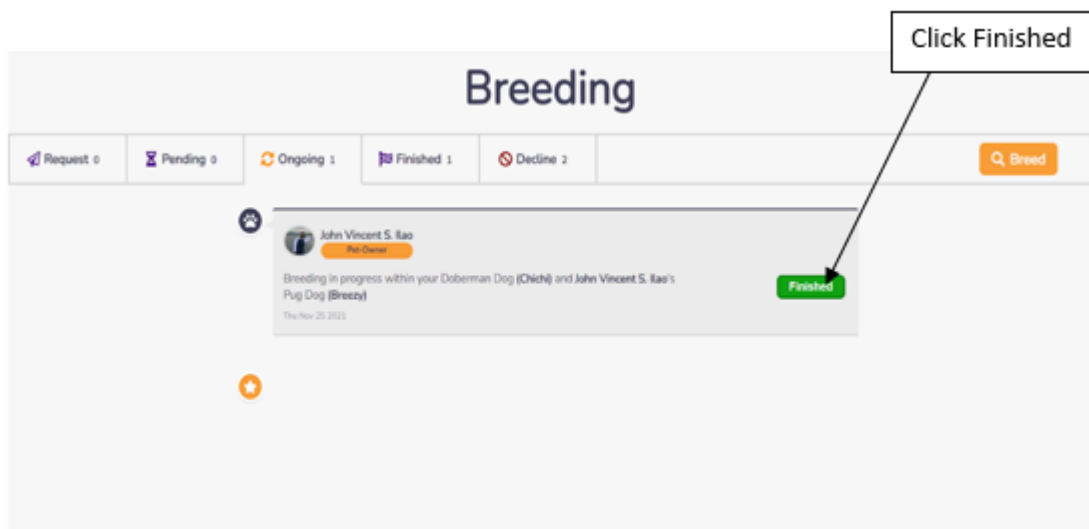


- a. If you want to breed your pet, click the search breed button to find the nearest pet owner or pet breeder corresponding to the species/breed you are looking for.



- b. If you send a request for the breeding, he/ she receives a notification about your request and you will also see it on the breeding page.
  - c. Users can decline the request though they need to explain the reason why they declined it.
10. You can see all their notifications by clicking the notification button. This includes the status of breeding.
  11. You can also give feedback from the other user when breeding is done

through clicking the Finished button on the Ongoing column.



12. The user can view all ratings of other users on the pet profile.

For the veterinarian side, the ability of the veterinarian is to accept and decline the background history of the pet. It can also view the post of the other users and it can post an announcement, react, comment. The veterinarian helps the users to make sure the pet is healthy and ready to breed.

1. Log in if you have an existing account.
2. Click the LOG-IN button then click Create one here... if you are a

new user of the portal.

- a. Fill up all the information needed.
  - b. After filling out, the system will ask for a valid ID, wait until the admin accepts your request.
  - c. Once it is accepted, you can now log in your account
3. If you want to post an announcement about pet breeding:
  - a. Just click "Write an announcement" then type the announcement.
  - b. After typing the announcement just click the "Add Announcements" button and it will post and the other users will see the announcement.
4. If you like some announcements and pictures of pets that shown in the newsfeed, you have an ability to react and comments to that post, just click the like buttons then if you like to say something just click the comment button then it will show the comment box to type that you want to say, after typing then click the submit button.
5. You can verify the pet's background history through clicking the pet profile of the pet owner and you can view all information of the pet. In the pet profile you can see the three (3) icon on the health background which is the viewing docs, accept and declined.



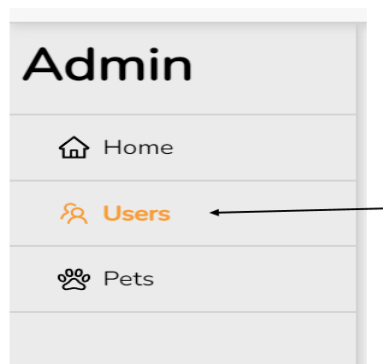
For the admin side, the ability of an admin is that it can control the users in the Bataan Online Pet Breeding Management Portal, it can view the post of the other users and it can post an announcement, react, comment, can ban users who violate the rules and regulations of the system, accept the validation of the veterinarian and he can show the top breeding pets on the Bataan Online Pet Breeding Management Portal.

1. The admin has a specific account. Go to the login page then type the email and password. The email is admin@pet-society.com and the password is pass123
2. If you want to post an announcement about pet breeding:
  - a. Just click “Write an announcement” then type the announcement.
  - b. After typing the announcement just click the “Add Announcements” button and it will post and the other users will see the announcement.
3. If you like some announcements and pictures of pets that shown in the newsfeed, you have an ability to react and comments to that post,

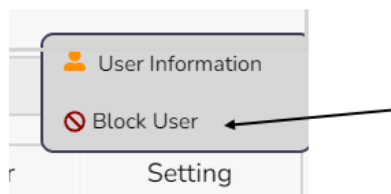
just click the like buttons then if you like to say something just click the comment button then it will show the comment box to type that you want to say, after typing then click the submit button.

4. If the user violates the rules and regulations of the system, the admin has an ability to ban the user account and it can set how long the user will be banned. If the user was banned it can't login to the system.

- a. Click the Users, it will locate on the left side.

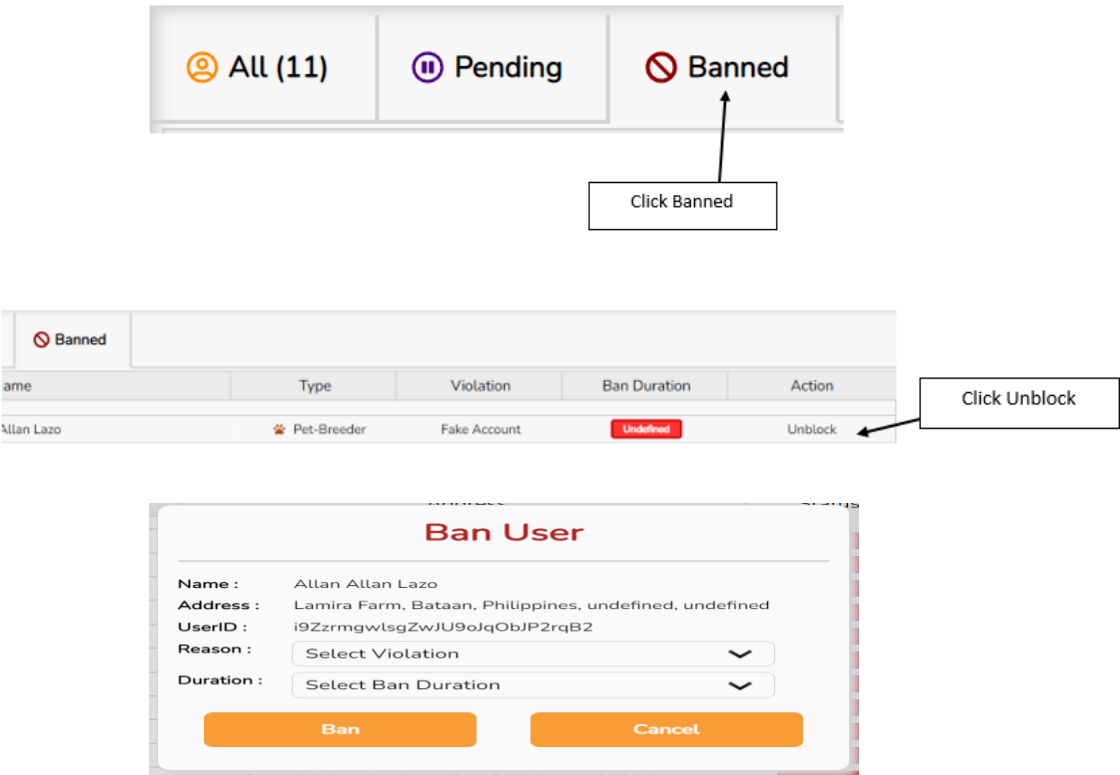


- b. After clicking the Users button, it will show all the users using the system then find the one who violates then click the settings button then click "Block User".



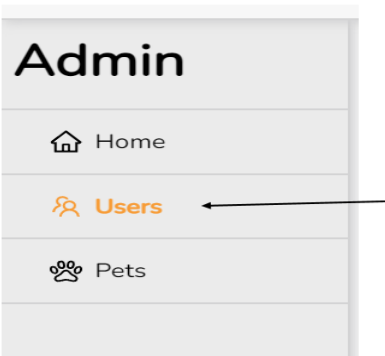
- c. After clicking the Block User it will ask the reason it can be verbal abuse, fake account, duplicate account and scammer,

then the duration of ban, 1 day, 1 week, 1 month or undefined.



- d. If you banned the user, you are the only one who can unban to that user. Just go to the Banned then find the user that you want to unban. Then click Unblock
5. In creating an account, the veterinarian is required to send a veterinarian id to determine if it is a legit veterinarian. The admin has the ability to accept or decline the request of the veterinarian in creating an account.
- a. After creating a veterinarian's account we will see the

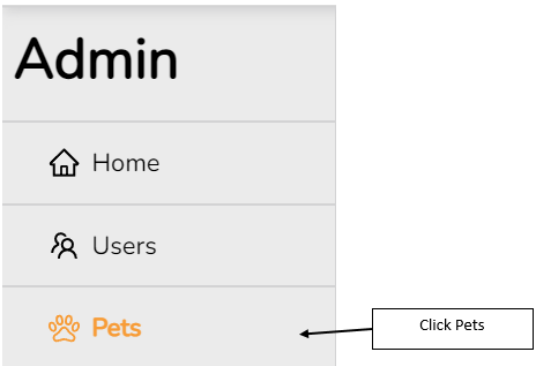
veterinarian's request. Click Users then pending.



- b. The Veterinarian Id can be seen by clicking the View Credentials. If the veterinarian's id is valid, you can accept his request just click the verify button then if not just click the decline button.

All (11)	Pending	Banned			
Name		Address	Files	Action	
Kyle Gamboa Dela Cruz		Limay, 2103 Bataan, Philippine...	View Credential	Verify	Decline

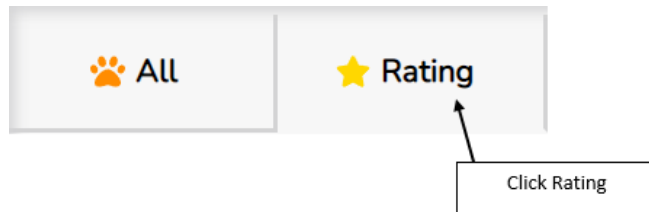
6. If you want to show the highest rating in the Features Page.
- a. Just click the “Pets” located on the left side.
















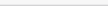
- b. After clicking the Pets, it will display all the pets that are available or not for breeding.



- c. Then click the Ratings, located in the upper side.



- d. Admin pinned the highest rating for cat and dog, these are the ones that other pet owners and pet breeders always choose when breeding.

Pinned	Name	Species	Breed	No. Of Likes	Average Rating	Action
	Shiela	Cat	Maine Coon	0 	 5	<a href="#">View Profile</a>
	Lucas	Dog	Poodle	0 	 5	<a href="#">View Profile</a>
	Andy	Cat	Maine Coon	0 	 4	<a href="#">View Profile</a>
	Milky	Cat	Persian	0 	 3	<a href="#">View Profile</a>
	Ming	Cat	Siamese	0 	 2	<a href="#">View Profile</a>

# **RESEARCHER'S PROFILE**



# DAVILYN F. DINIO

## CONTACT

---

208 G. Pascual St. Lusungan Orion,

Bataan

09957150172

davilyndinio@gmail.com

## PERSONAL DATA

---

BIRTHDAY: November 14, 1999

AGE: 22 years old

CIVIL STATUS: Single

SEX: Female

PLACE OF BIRTH: Orion, Bataan

RELIGION: Roman Catholic

NATIONALITY: Filipino

HEIGHT: 5'2"

WEIGHT: 60 kg

## EDUCATION

---

BATAAN PENINSULA STATE

UNIVERSITY

2018-2022

BS Information Technology Network and Web  
Application

BATAAN SCHOOL OF FISHERIES

2012-2016

Secondary Education

2016– 2018

Technical Vocational Livelihood– Computer System  
Servicing

Orion Elementary School

2006-2012

## COMPUTER SKILLS

---

• Proficient in Microsoft Office, Excel and PowerPoint

• Proficient in Adobe Photoshop

• Online researching

• Know how to format computer

## AWARDS/AFFILIATIONS

---

**2018-2019**

**Red Cross Youth Member**

**2018-2019**

**Civic Welfare Training Service (CWTS)**

**2017-2018**

**With High Honor (Grade 12)**

**2017-2018**

**Computer System Services**

**National Certificate II**

## WORK EXPERIENCE

---

• Company Name: Special Program for Employment of Students  
(SPES) - Census

Position: Employee

Inclusive Date: 2017-2018

## CHARACTER REFERENCES

---

• Rafael Adriano

Konsehal

Lusungan, Orion Bataan

09197047455

• Acelyn Aparilla

Instructor

Arellano Elementary School

Capunitan, Orion Bataan

09305448180

• Ervina Guzman

SK

San Vicente Orion Bataan

09387975397



# John Vincent S. Ila

## CONTACT

27 JP Rizal St. Wakas

Orion, Bataan

09283322127

johnvincent0818@gmail.com

## PERSONAL DATA

BIRTHDAY: August 18, 1999

AGE: 22 years old

CIVIL STATUS: Single

SEX: Male

PLACE OF BIRTH: Balanga, Bataan

RELIGION: Roman Catholic

NATIONALITY: Filipino

HEIGHT: 183cm

WEIGHT: 75 kg

## EDUCATION

### Tertiary:

BATAAN PENINSULA STATE UNIVERSITY  
(MAIN CAMPUS)

BS Information Technology Network and Web  
Application

Balanga Bataan

2018-Present

### Secondary:

JOSE RIZAL INSTITUTE (ORION)

San Vicente Orion, Bataan

2012-2018

### Primary:

Orion Elementary School

Orion, Bataan

2006-2012

*I hereby certify that the above-stated information is true and  
correct to the best of my knowledge and belief.*

JOHN VINCENT S. ILAO

## OBJECTIVES

Seeking an entry-level position where I can use my academic background, ability to work well with people and to gain valuable experience from the organization.

## COMPUTER SKILLS

· Proficient in Microsoft Office, Excel and PowerPoint

· Knowledge in Adobe Photoshop

· Knowledge in Web Design (HTML, CSS)

· Online Researching

## AWARDS/SEMINARS

2018-2019 Civic Welfare Training Service (CWTS)

2020-2021 Dean's Lister 3<sup>rd</sup> Year

Nov 12, 2021

Raite 2k21 (Webinar)

Nov 23, 2021

University Town Promotion

## WORK EXPERIENCE

· Company Name: Special Program for Employment of Students (SPES)

Position: Employee

Inclusive Date: 2017-2018

· Tulong Panghanapbuhay sa Ating Displaced Worker (TUPAD)

Orion, Bataan

Inclusive Date: September 6, 2021 – September 20, 2021

## CHARACTER REFERENCES

· Myra R. Mangila

09176290301

Door 1 L.Tria Apartment Bagumbayan

Orion, Bataan

myramangila@gmail.com

· Chris Leorenz C. Carlos

Philippine National Volleyball Federation Games Services Admin

Orion, Bataan

09984441063

· Christian Canoy Olanio

ER head nurse/ OR nurse- Orion St Michael Hospital 178

Orion Bataan

09173178701



# ROLANDO Q. LAZO

## CONTACT

---

Tiangco St, Bagong Silang Balanga City

Bataan

09127615685

mrahito123@gmail.com

## PERSONAL DATA

---

BIRTHDAY: December 06, 1998

AGE: 24 years old

CIVIL STATUS: Single

SEX: Male

PLACE OF BIRTH: Balanga City, Bataan

RELIGION: Roman Catholic

NATIONALITY: Filipino

HEIGHT: 5'7"

WEIGHT: 61 kg

## EDUCATION

---

BATAAN PENINSULA STATE

UNIVERSITY

2018-2022

BS Information Technology Network and Web Application

BATAAN NATIONAL HIGH SCHOOL

2011-2015

Secondary Education TECH-VOC - Electronics

2016– 2018

Technical Vocational Livelihood– Computer System Servicing

Bagong Silang Elementary School

2005-2011

## COMPUTER SKILLS

---

- Proficient in Microsoft Office, Excel and PowerPoint
- Knowledge of Adobe Photoshop, Figma, Canva
- Knowledge of Web App Development (JS [React], Php, Mysql, Firebases, Bootstrap, HTML, CSS)
- Knowledge of Android App Development (Java)
- Basic knowledge of Desktop/Windows App Development (Java, C#)
- Knowledge of Computer Maintenance and Installation

## WORK EXPERIENCE

---

• Company Name: Bataan Space Cable Network Inc.

Position: IT Technician/Support

Inclusive Date: 2019-present

## CHARACTER REFERENCES

---

- Jose Ramirez  
Konsehal  
Tenejero, Balanga City, Bataan  
0948-807-7225
- Noel Policarpio  
Manager  
Dona Francisca, Balanga City, Bataan  
0998-550-7751
- Jeffrey Estoperez  
Senior IT  
Cupang, Balanga City, Bataan



# MARISSA P. MENDOZA

## CONTACT

---

920 Sitio Bani, Cataning, Balanga City, Bataan

09467414550

psai.mendoza@gmail.com

## PERSONAL INFO

---

BIRTHDAY: November 1, 1999

AGE: 21 years old

CIVIL STATUS: Single

PLACE OF BIRTH: Balanga City Bataan

RELIGION: Roman Catholic

NATIONALITY: Filipino

HEIGHT: 4'9"

WEIGHT: 42 kg

## EDUCATION

---

BATAAN PENINSULA STATE

UNIVERSITY

2018-2020

BS Information Technology

BATAAN NATIONAL HIGH SCHOOL

2012-2016

Secondary Education

2016– 2018

Technical Vocational– Contact Center

## COMPUTER SKILL

---

- Advanced understanding in Microsoft office, PowerPoint, and Excel
- Excellent in Adobe Photoshop
- Good in telecommunication
- Internet research
- Internet research

## AWARDS/AFFILIATIONS

---

Jan 27, 2017 NATIONAL CERTIFICATE II IN FRONT

OFFICE

NATIONAL CERTIFICATE II

Nov 27, 2017 TRAINING REGULATIONS FOR CONTACT

CENTER SERVICES II

NATIONAL CERTIFICATE II

2017-2019 PEER FACILITATOR

Organization Of Balanga

2017-2018 HIGH HONOR STUDENT

## CHARACTER REFERENCE

---

MRS. CELINE MONTERO

English Instructor, BNHS

0906-240-5334

0916-177-1415

JUSTINE JOY CARO

Instructor,

Part-time Call Center Agent

0916-177-1415

## WORK EXPERIENCE

---

• Company Name: Special Program for Employment of Students (SPES) - PEER FACILITATOR

Position: Employee

Inclusive Date: 2017-2018

• Company Name: DE GUZMAN COMPANY– CHOWKING VISTA MALL

Position: Employee

Inclusive Date: 2018-2020