

Pet Finder Website Development

BY

ONG SENG HAO

A REPORT

SUBMITTED TO

Universiti Tunku Abdul Rahman

in partial fulfillment of the requirements

for the degree of

BACHELOR OF INFORMATION SYSTEM ENGINEERING (HONS)

Faculty of Information and Communication Technology

(Kampar Campus)

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Title: ONLINE PET FINDER WEBSITE DEVELOPMENT

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I ONG SENG HAO

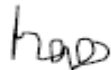
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Date: 23 April 2020

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DECLARATION OF ORIGINALITY

I declare that this report entitled “**ONLINE PET FINDER WEBSITE DEVELOPMENT**” is my own work except as cited in the references. The report has not been accepted for any degree and is not being submitted concurrently in candidature for any degree or other award.

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Date : 22/04/2020

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I would like to express my sincere thanks and appreciation to my supervisors, Dr. Tan Joi San who has given me this bright opportunity to engage in a web development project. It is my first step to establish a career in web development field. A million thanks to you. I would also like to thanks my friends for their supports and encouragement. Finally, I must say thanks to my parents and my family for their love, support and continuous encouragement throughout the course.

ABSTRACT

The name of this project is called Pet Finder Website Development where a pet finding website named “Pet-Search” will be delivering in the end of this project. This project seeks to create a cost-efficient pet finding website with some functions that enhance the effectiveness and efficiency for people to find their lost pets. This website provides all of the necessary tools that a pet finder website must contained with some added features. The aim of this project is to provide people ease of searching lost pets with no difficulties. Several functionalities are implemented in the website including refine searching function, where user can do refine searching to filter out the lost pets and save a lot of time. Besides, posting lost pet poster function, a function that allow users to post their lost pet’s information to the platform. As there is a lot of missing pet cases happened nowadays and the found rate keep remain low. This website will provide a simple and effective platform for people to search for their missing pets. The clear design of interface and easy use of features of this website make users understand easily how this website work and how to use features in simple steps. After reviewing some similar websites, research and analyze is done to better understand the pet finding website. A list of functionalities, system design architectures and design diagram are obtained and can be further enhanced to achieve the criteria including effectiveness, efficiency and cost-efficient of the system. The features require improvement constantly for ease of use in this Pet-Search website.

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LIST OF ABBREVIATIONS

JSP	Java Server Pages
PHP	Hypertext Preprocessor / Personal Home Pages
CSS3	Cascading Style Sheet 3
MySQL	My Structured Query Languages
HTML	Hypertext Markup Language
RAM	Random-Access Memory
GUI	Graphical User Interface
MD5	Message-Digest Algorithm 5
RTO	Return-to-owner rate

Chapter 1: Introduction

1.1 Overview

Pets are common component of some family across Malaysia as well as some other countries. The cases of missing pets are increase gradually in Malaysia. Missing pets is a nightmare for the pet owners. When the owners lost their pets, most likely they will search through their area, distribute posters, contact animal shelter and etc. Other than that, some of the pets may be returned to their owners by their own. There is also an issue that the pet is found by the others but they have no methods to contact the owners. According to (Weiss, 2012), among to the owners who lost their pets, there are only 38% of them are able to find their lost pets and the dogs are much more likely to return home compare to the cats.

In this new era of information technology, there is an opportunity to increase the found rate of lost pets. Other than distributes the posters and fliers, owners can also post their pets information on the online pet searching portal system. It may be a more effective way to find the missing pets and get them returned to their owners.

Online pets finder system is an online platform that develops to let users find their lost pets in an effective and easier way. Users can post their missing pet's information and search for the animal shelters nearby their area using this online pet finder system. For the users who found the missing pets, they can contact the owners and get the pets returned. Other than that, they can also post the dogs and cats that found on the streets. Therefore, the owners may search the lists when they lost their pets. This online system is a platform to let users to find their pets since most of the people have IT devices and internet connection in this 21st century. Thus, it could be a more effective way to allow the owners to find their lost pets.

1.2 Problem Statement and Motivation

Nowadays, the cases of missing pets are increase gradually and the found rates are remaining low. One of the reasons is that there are only few methods for the owners to find their lost pets such as distributing poster or posting list on social media. Other than that, some of the missing pets may have been found but the founder does not know the way to contact the pet owners. It was very costly and consumes a lot of time to distribute the posters nearby the street. Some of the owners post their search list on online pet searching websites too. However, there are only a few missing pet websites in Malaysia even in the other countries. This is one of the main problems since users have less choices to choose the more efficient and effective ways for them. Thus, lack of effective and functionality methods is the main problem currently in Malaysia.

1. Problems of searching animal shelters

For owners who lost their pets, they will mostly search through their areas and contact the animal shelters nearby their location to determine whether their pets are in the shelters or not. However, they might not have the contact number or address of the animal shelters in their location. It is hard for them to get the details of animal shelters since some of the pets searching websites also do not provide the information.

2. Lack of information, statistics and analysis provided

It is difficult to determine the number of missing pets in Malaysia. Perhaps, there are lots of reported cases that happen every day but they are not recorded clearly. Hence, the amount of cases is vague and unable to arouse the attention of the public.

1.3 Project Scope

In the end of this project, an online pet finder website which name “Pet-Search” will be designed and develop. The scope of this “Pet-Search” website is to let the pet owners to find their lost pets through a simple and not costly way. There are some functions and features implemented into the website which will makes the searching of lost pets become more effective and efficient. For example, some important features like create profile, posting list of missing pet, administrator and refine searching on the pets are suggested.

Initially, users are required to register an account within some simple steps in order to login into the system. Later, they will be able to post the missing pet’s list or found pet’s list. The administrator will checks for the posts and approve it for posting on the website. For example, the image and information of the pets are filled with awful and indecent. With these features, it can prevent the users posting lots of fake or equivalent posts on the website.

Users can search for their lost pets or shelter more effectively and rapidly by using refine search function. Users can fill in the fields of the refine search which consists of types, breed, ages, gender and location about the pets. Other than that, they can also search the shelters by their location and name. Users are able to find a contact way to the shelters and ask if the shelters found his/her pets. If the users want to adopt some pets, they can contact the nearby shelters. There are also location maps showing that the area of the pets missing and how many pets are missing in the state.

In order to let people know about the issues of missing pets, an analysis and reports of the cases are a must. Thus, owners or people can know about the statistics and take some actions to prevent it such as using microchips on their pets. There are also a lot of pet owners do not know what they should do after lost their pets because they are lack of knowledge and information about it. It is also useful that the number of missing pets cases can be generates within a location. If there are a lot of cases happen within a couple days, there might be some pet stealers in the area. So, the owners can aware it and the related workers may take actions also.

In summary, this project will develop a missing pet website which named “Pet-Search” with functionalities. The posts are able to be distributed fast among the users thought the internet. Thus, users can find their lost pets in a more effective and efficient way.

1.4 Project Objectives

The main objective of this project is to develop an effective and efficient pet finder website development to users. Users can search for their lost pets or post the found pets through some simple steps.

1. Provide the animal shelters function and the information needed for users to reduce complexity of searching the lost pets.

Users are able to check their lost pets at the animal shelters nearby as the contact methods and address of animal shelters are stated clearly. The information of the lost pets is also specified in details so users can detect it more easily.

2. To increase the awareness of people about missing pets issues in Malaysia.

The function of data analysis and collection are conducted to let users know more about the issues of missing pets in Malaysia. Thus, it can increase the awareness of them and the rate of missing pets may be reduced.

1.5 Impact, significance and contribution

The features provided in this Pet-Search website able to assist the users to find their lost pet in a more efficiency way. This project has to be carried out because it will spread the awareness about the tragic plight of lost or abandoned pets and helping out people in finding the missing pets. By having this Pet-Search website, the users are able to find their pets through the huge platform in Malaysia not only just nearby the missing pet area.

Other than that, lots of features that included in this website project can enhance the efficiency and less time-cost to find a missing pet. One of the issues faced by most people is that when someone found stray pets but has no information or contact way to contact the owner, their only way is either send the pet to nearby animal shelters or posting on social media. However, the project provides simple way for letting them posting on the internet platform or searching nearby animal shelters. The processes will be simplified for both the owner and founder by using this project. In the long term, the awareness of users about missing pet cases will be increases along with better solution when facing the issues.

1.6 Background Information

This project is being developed into some fields which the main field is involved in a website development. Other than the main field, the project involves also some knowledge and methods when facing missing pet problems.

A website development is a term that means creating, developing and designing a website for internet. A website also consists of different web pages with features and functionalities. Nowadays, there are many different types of website on the internet platform including online banking, social media, information based, online shopping and so on. According to 'Internetlivestats', there are over 1.7 billion websites on the world today but only less than 200 million of these are active. The development of a website can be done simply by some software but hard to keep on updating and maintaining it. The design process is important in a website development as a well-designed website always satisfy users' needs. A website development is also important in this internet era as a website brings convenient, cost-effective, save time, sales and marketing on relevant websites.

In order to further understanding of the project, a website is developed by using some software such as Visual Studio Code which provides build support and database features. There are some web browsers to access into the websites, according to (Jamie, 2018) the most popular browser is Google Chrome. Therefore, this project must able to access on Google Chrome browsers as more users can use it.

In this project, an online pet finder website will be developed to make ease of users for searching lost pets. Some of the basic features will be provided in this website like posting lost pet poster therefore pet owners do not have to distribute the poster by themselves.

1.7 Proposed Approach/Study

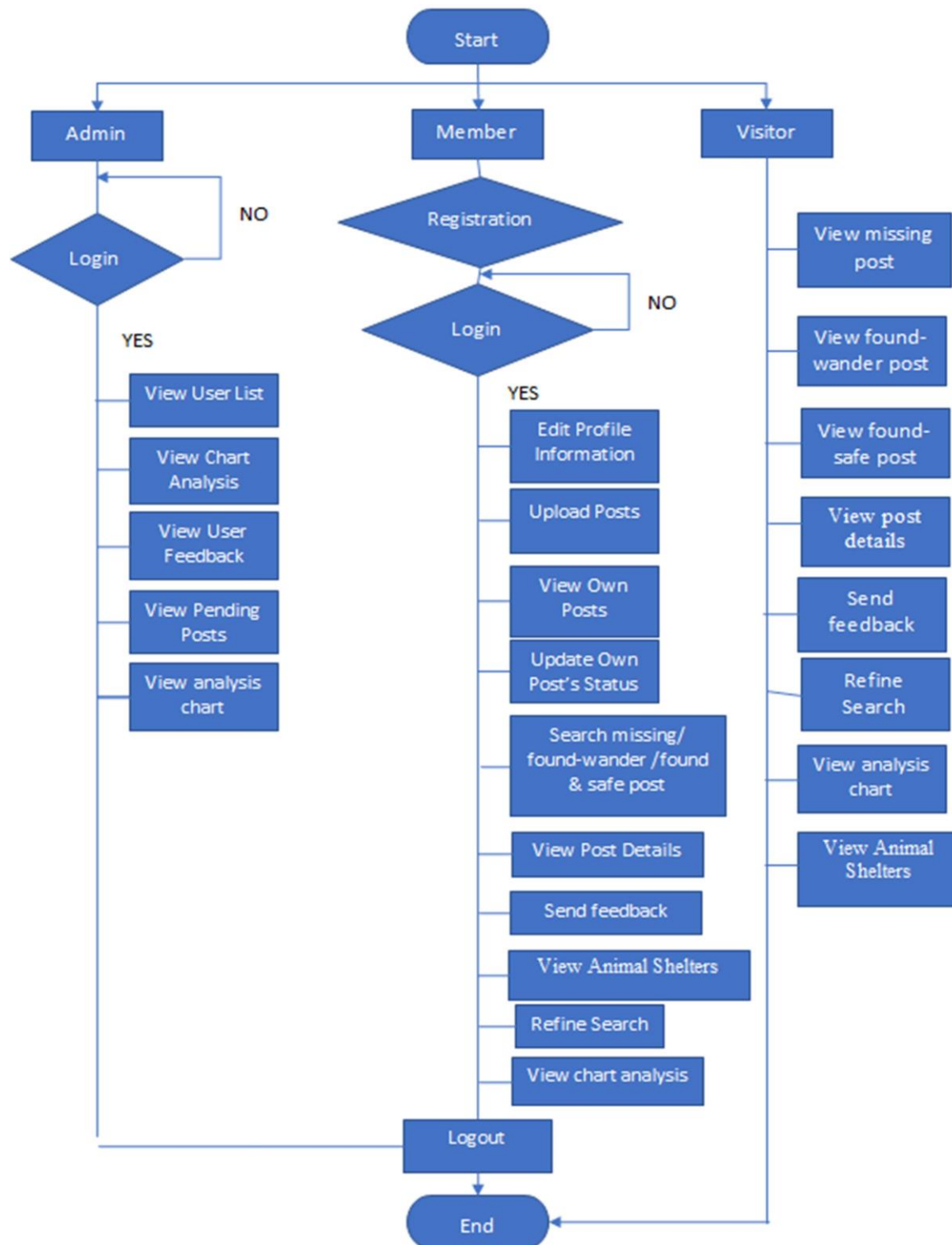


Figure 1.1 system flowchart

CHAPTER 1 INTRODUCTION

Figure 1.1 above shows the flowchart of Pet Search website which basically divides into three parts (Admin, Users, and Visitors). The visitors are only allow to perform some simple functions such as viewing missing posts, view animal shelters and send feedback. However, if the users have registered an account, they are able to sign in to the Pet Search website with additional features given. After login, users are able to upload either missing or found-wandering posts to the website. In the user's profile, they can edit their profile information and also view the posts uploaded by them. Users are able to update their posts status whenever needed. Lastly, there is a logout button on the top-right side of web pages which enable users to logout the Pet Search website.

Besides that, an admin dashboard is designed to allow admin perform some functions. Login is required by type in admin's id and password. The features of admin dashboard include viewing user list, feedback list and pending posts uploaded by users. If there are harassment found between those, admin has the right to delete either user, feedback and reject the post pending. The reason that the posts upload by users need to be approve by admin first in order to shows up on the Pet Search website is because of the harassment and security issues.

1.8 Highlight of what have been achieved

The Pet Search website is developed to reduce the missing and wandering pets' cases in Malaysia. As this platform allow users to upload those missing posts and wandering posts, it enhanced the chances of the success rate of finding back the pets and brings them back to their home. This website also solve the problem of lacking information about animal shelters nearby as most of the missing pets in the public area will be send to the nearest animal shelters by people. Thus with the feature of viewing animal shelters in this website, it provides the details and contact ways of different animal shelters located in different states. Not only for that, the development of this Pet Search website is to enhance people's awareness about this important missing pets issues happened in Malaysia. Thus, chart analysis according to different attributes is able to arouse these cases to the public.

1.9 Chapter 1 Summary

In this chapter 1, it briefly describes the background of missing pet in Malaysia and the online pet finder system. The problem statements of missing pets in Malaysia have been stated above. The main problem is that lack of effective ways to find missing pets in Malaysia. Other than that, there are two sub-problems such as problems of searching animal shelters and lack of statistics and analysis provided. The project scope has stated the final deliverable product is an online pet finder website named “Pet-Search”. Thus, the project objectives are defined in order to achieve the goal. A proposed approach has been shown which deliver a simple flow-chart to make easy understanding of the Pet-Search website. In this chapter, those objectives achieved have been highlighted too.

Chapter 2: Literature Review

2.1 Overview

There are some searching pets online system existed nowadays such as “PetFinders”, “PetAmberAlert” and “The Lost Dog Home”. Thus, users can choose among these systems and have more platforms to find their lost pets. This chapter will review on the existing systems and techniques related to the online pets searching system and some comparisons among them.

2.2 PetFinder.my

PetFinder.my is the largest animal welfare platform in Malaysia. Their missions are to raise awareness towards pets and find loving homes for them. It is a website that users can find their lost pets, adoption of pets and donate fund for the pets. Thus, users can go through this website in order to post their lost pet’s information or find some adoption of their pets.

PetFinder.my provides a simple way to create an account which is users can sign up with either their Facebook account or a new PetFinder’s account. Next, it does not contain a confirmation of password field. If users mistype the password, they will not recognize it and cannot login into the website. Thus, a confirm password field is important. The main advantage of the registration and login module in this website is that it provides clear and simple steps for the users to register or login. Other than that, a forgot password function is also available in case the users forget their password.

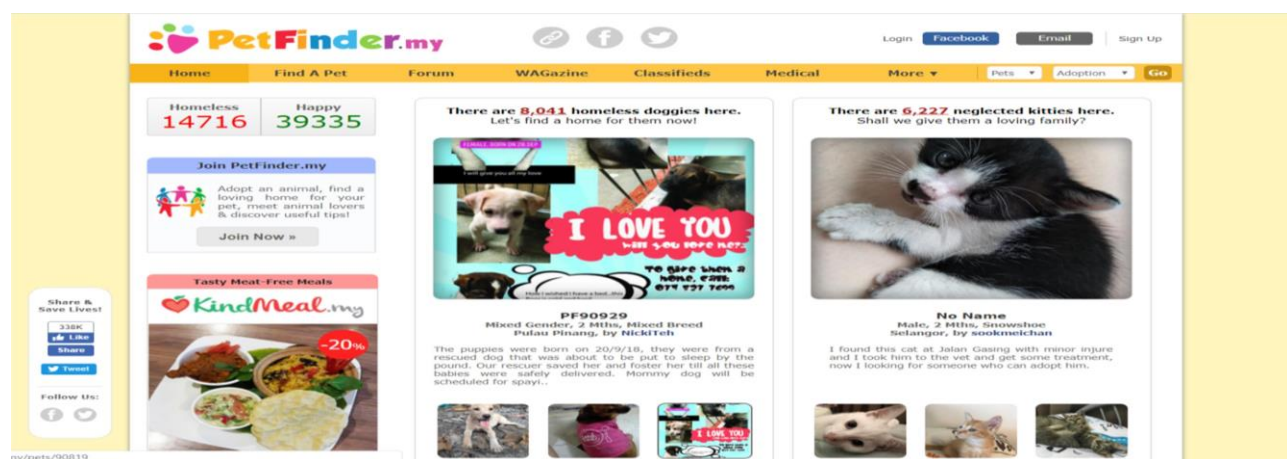


Figure 2.1 Homepage of PetFinder.my

CHAPTER 2 LITERATURE REVIEW

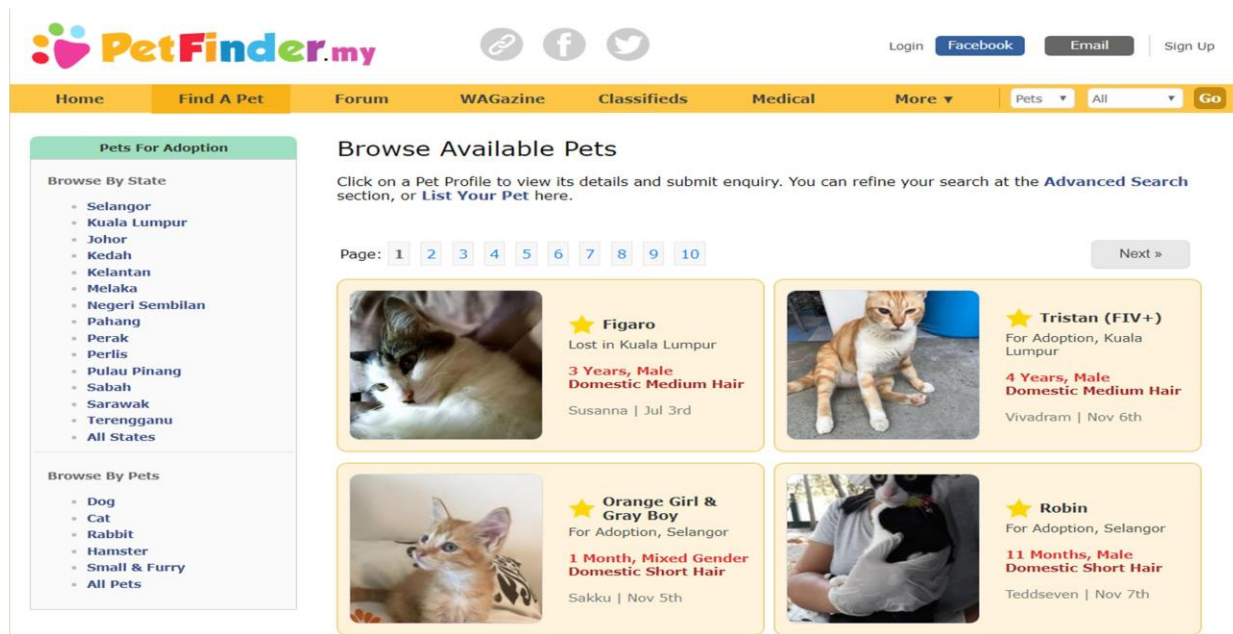


Figure 2.2 Searching Page of PetFinder.my

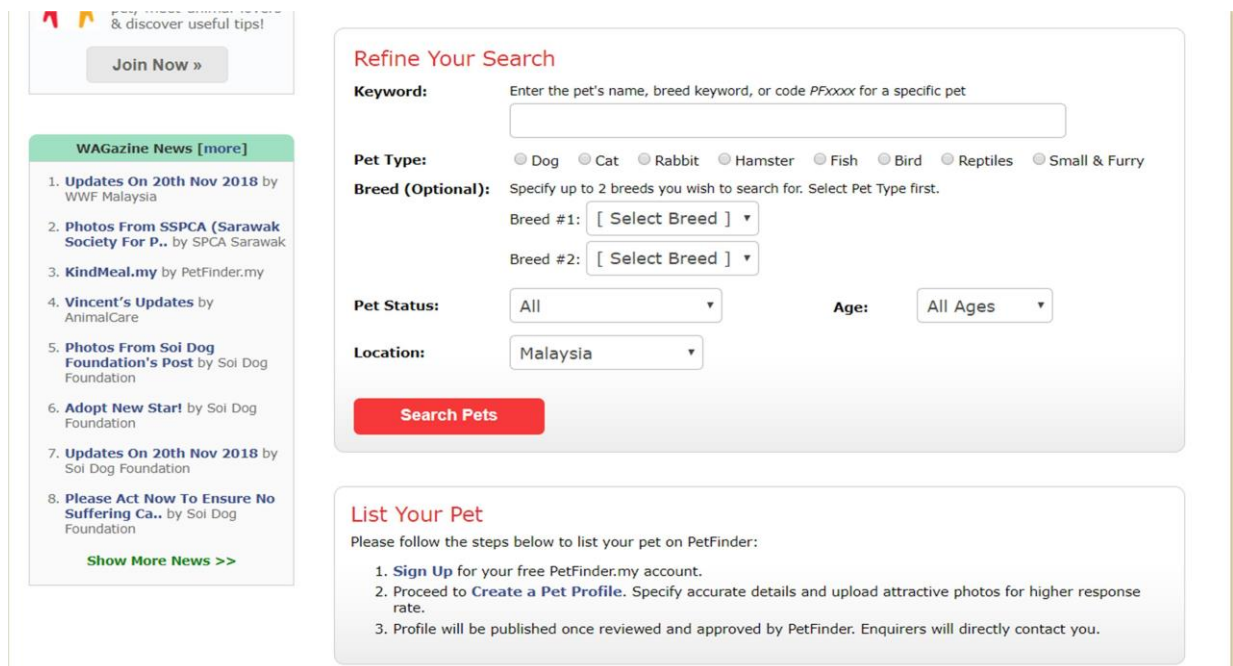


Figure 2.3 Refine Search and Post List Function of PetFinder.my

2.2.1 Strength

The website design is simple and easy, users can search for their pets or post lost pets on the website with no issue. The user interface design of the webpage is colourful and the function of each module is easy to understand.

The missing pets' posters and lists can be distributed very fast through the internet because this website contains a Facebook page and Twitter.

Users can login and sign up within some simple steps. For the Facebook users, they can also login with their Facebook account.

Users can refine their search on the type of pets, breed or location. It can save lots of time by searching for the missing pets.

The pictures of pets are displayed clearly in a normal size. Thus, users will not be confused or disorder when viewing the long list.

A simple way to contact the owners, rescuer and shelter is provided. Other than that, the location map about the area of missing pet or the address of shelters are also shown clearly.

2.2.2 Weakness

It only provides English language version which some users who not familiar with English may have some problem using it.

Does not contain a confirmation password field during registration. Users may mistype the password and unable to login to the website.

For the refine search function, the search form is in the most bottoms of the pages. Some users may have skipped this function and this may lead to an inefficient searching. Other than that, users cannot filter their search by the pet's genders.

It does not show the total number of pets missing within an area or state. Users unable to search for animal shelters nearby their area too.

A lot of advertisements of other websites or companies are shown in the webpage; users may get annoyed about it.

CHAPTER 2 LITERATURE REVIEW

2.3 PetAmberAlert.com

“PetAmberAlert” is a website to search for owner’s missing pets. This “PetAmberAlert” have expanded and send the alert through phone, poster, faxes, email, and others social media. Nowadays, around 100,000 alerts already dispatched for missing pets across the country. The veterinary hospitals, police stations, shelters, pet stores are reorganize the lost pet posters, emails, or phone calls for quick response.



Figure 2.4 Homepage of PetAmberAlert

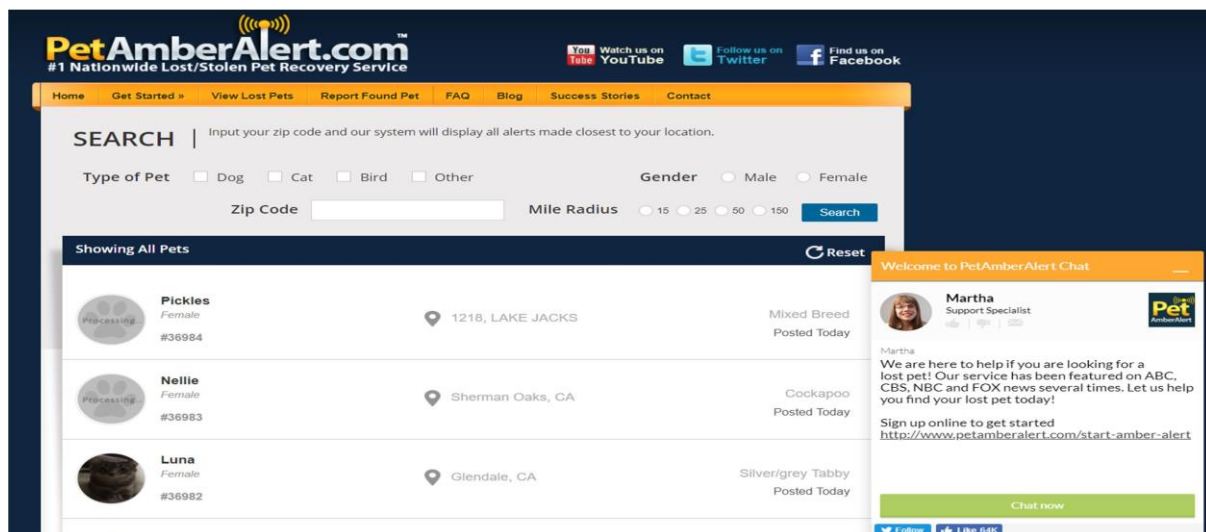


Figure 2.5 Searching Page of PetAmberAlert

2.3.1 Strength

It contains live communication function which allow user to ask some questions directly. For example, users can ask some questions about the posting list of lost pets.

The homepage has provides the Facebook, Twitter, and YouTube link. When users click to the link, user can search for more accurate information of the website.

Refine search function of the pets is provided. Users can search the missing pets by fill in the breed and gender of the pets.

The design of the searching webpage is simple and systematic. All the pet characteristics are show on the top of the webpage where users can select it easily. All the result will show clearly below the search engine after user click on the search button.

2.3.2 Weakness

Register and sign up function are not provided. User can directly report the founded pets by filling the basic information. However, this will cause fake information post on the website if the information is not verified and checked by admin.

The colour used on the website is too plain and not attractive enough. Most of the background colours are white and blue; it will make the users feel boring and it also will decrease the user's interest to browse through the website.

The information of the website is stated in the paragraph format. User will feel very dull and has no intention to read the whole paragraph. This will cause them to miss out some important information.

Most of the important information is highlighted with light-blue colour that is not obvious enough to let user pay attention on those sentences. User must use the sharp colour for highlight the crucial message like yellow colour in order to catch the important message.

2.4 The Lost Dogs Home

The Lost Dogs' Home is organized by an animal welfare organization which in caring of lost and unwanted pets with shelters in Victoria, Seychelles. This Lost Dogs Home's website has the functions to let users search their lost pets, adoption of pets and look for animal shelters. The main mission of this website is to work with the community by reducing the number of lost cats and dogs. Thus, it provides an effective searching and posting lost pets function to the users.

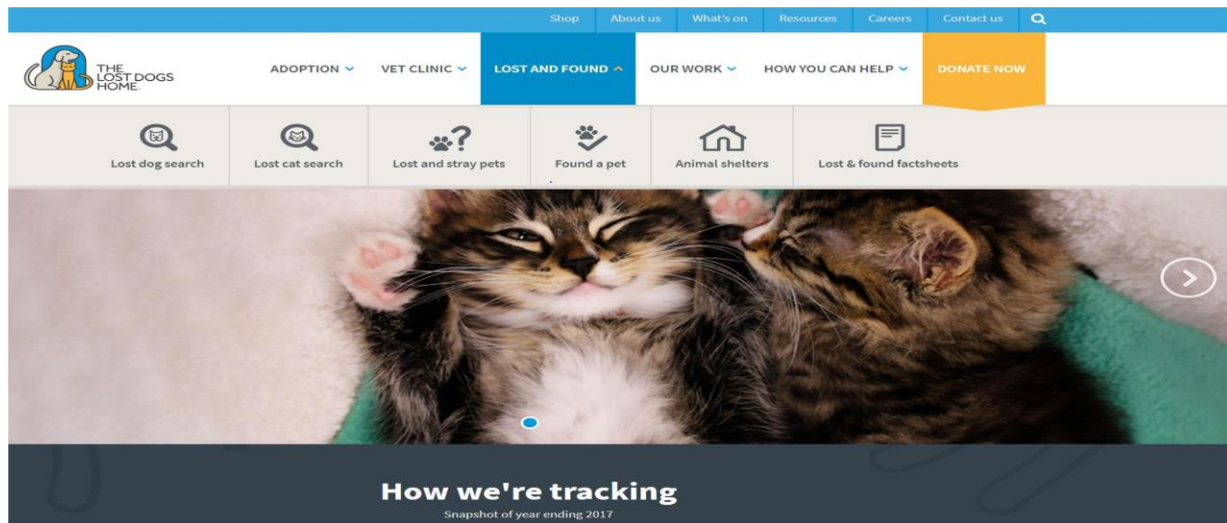


Figure 2.6 Homepage of The Lost Dog Home

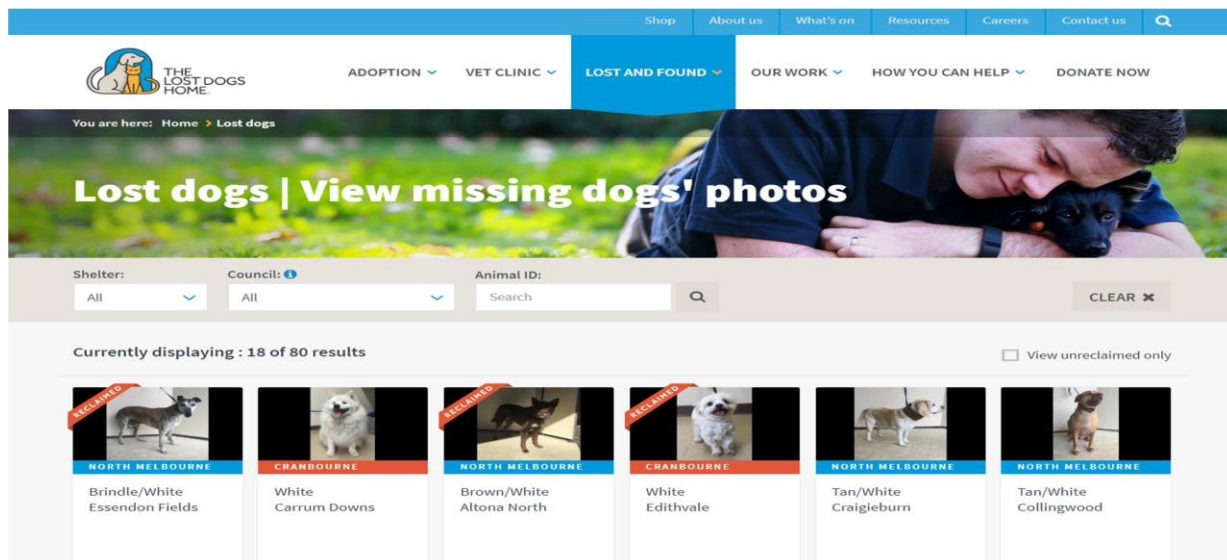


Figure 2.7 Searching Page of The Lost Dog Home

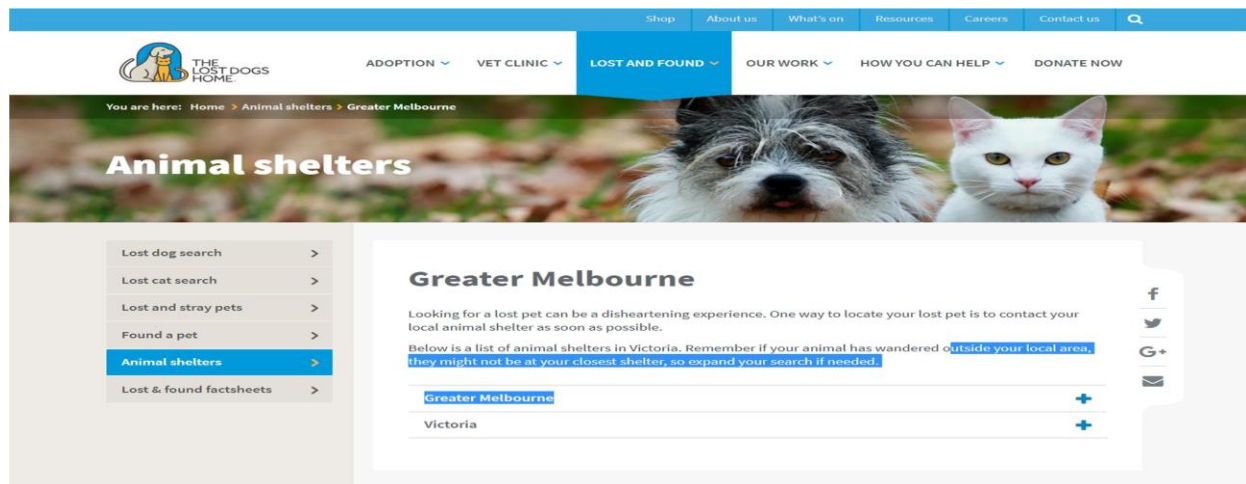


Figure 2.8 Animal Shelters Function of The Lost Dog Home

2.4.1 Strength

The overall design of user interface is good. Homepage is colourful so the users may be attracted to the website.

It does provide the detail information of animal shelters in the location. Therefore, users are able to contact the animal shelters with a simple way.

The total number of lost dogs and cats is shown in the searching page. The characteristics such as location, colour and breed of the lost pets are displayed clearly in the searching page. Thus, the owners can find their lost pets through the searching page easily.

2.4.2 Weakness

Register and sign up function do not provided. Thus, users can claim the lost pets' posts or the found pets by filling some information. The fake and redundant information may be posted if the administrators do not check and verify it.

The refine search function for the lost pets is not provided. It is important since the users can filter their search by typing the breed, type, colour and gender of the pets and it can save a lot of time for them searching through the webpage.

The pictures of the missing pets are too small in the searching page. Some of the old users may have some problem to view it. This may causes them to miss searching their lost pets since the picture is not clear enough to see.

2.5 Chapter 2 Summary

In this chapter, literature reviews of the similar websites are carried out to determine the strengths and weaknesses of the websites. There are three websites (PetFinder.my, PetAmberAlert and The Lost Dog Home) have been compared in the table below.

	PetFinder.my	PetAmberAlert	The Lost Dog Home
Login and Registration	Yes	No	No
User Profile Function	Yes	Yes	Yes
Animal Shelters function	Yes	No	Yes but only in the specify area.
View Lost Pets	Details display clearly	Details display not that clearly and the profile picture of lost pets is too small.	Details display clearly and status of the pets is shown.
List Missing Pet or found pet	Yes	Yes	No, users can only view the missing pets list provide by animal shelters.
Refine Search for pets	Yes	Yes	No
Overall design of the user interface	Functions are stated clearly in the menu bar and design is colourful.	The design is very static and only deep blue as the background colour.	Functions are stated clearly in drop list of menu bar and design well.
Live Chat Function	No	Yes, live chat with admin is available in time.	No

Table 2.1 Comparison of Three Pet Finder Websites

Chapter 3: SYSTEM DESIGN

3.1 Overview

In chapter 3, it will briefly explain and discuss about the methods and technologies involved in this website development project. The design specification and design of the system of the project will be focused during this chapter.

3.2 System Block Diagram

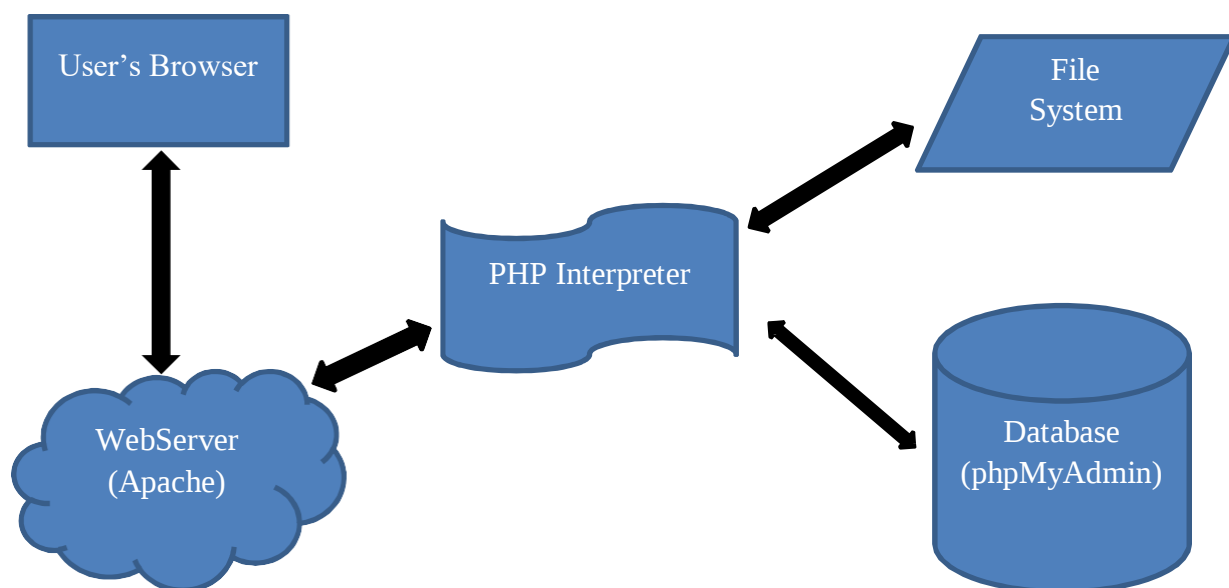


Figure 3.1 System Block Diagram

Figure above shows the block diagram of PetSearch website. The flow of the component has been stated clearly. As this project is based on PHP coding, thus PHP interpreter had been used to connect to the web server, file system and also the database phpMyAdmin. It builds a connection between user's browser and the webserver therefore the server-side codes (PHP) can be undergoes in the correct form.

As PHP is one of the popular web development language and server side scripting tools based on HTML, it has been used for this project as interpreter. It considers as the best option for

CHAPTER 3 SYSTEM DESIGN

building a dynamic web pages which supports database management system. These made an ease by developing the project because of the easy functions, method and syntax of this language.

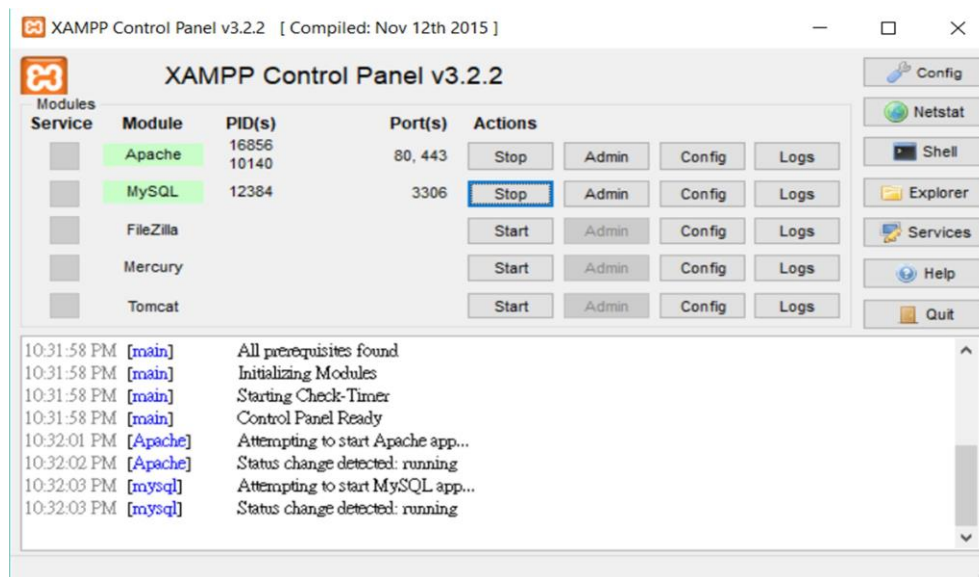


Figure 3.2 XAMPP control panel

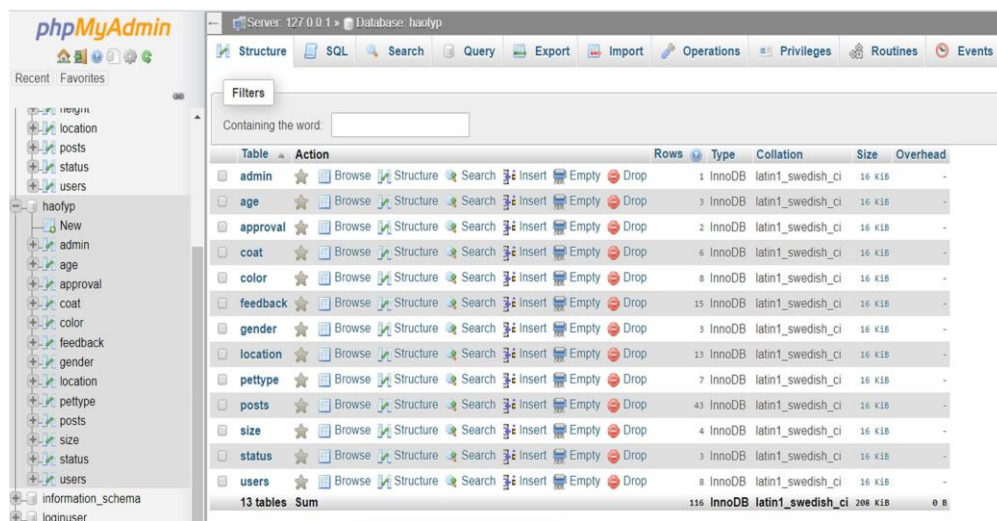


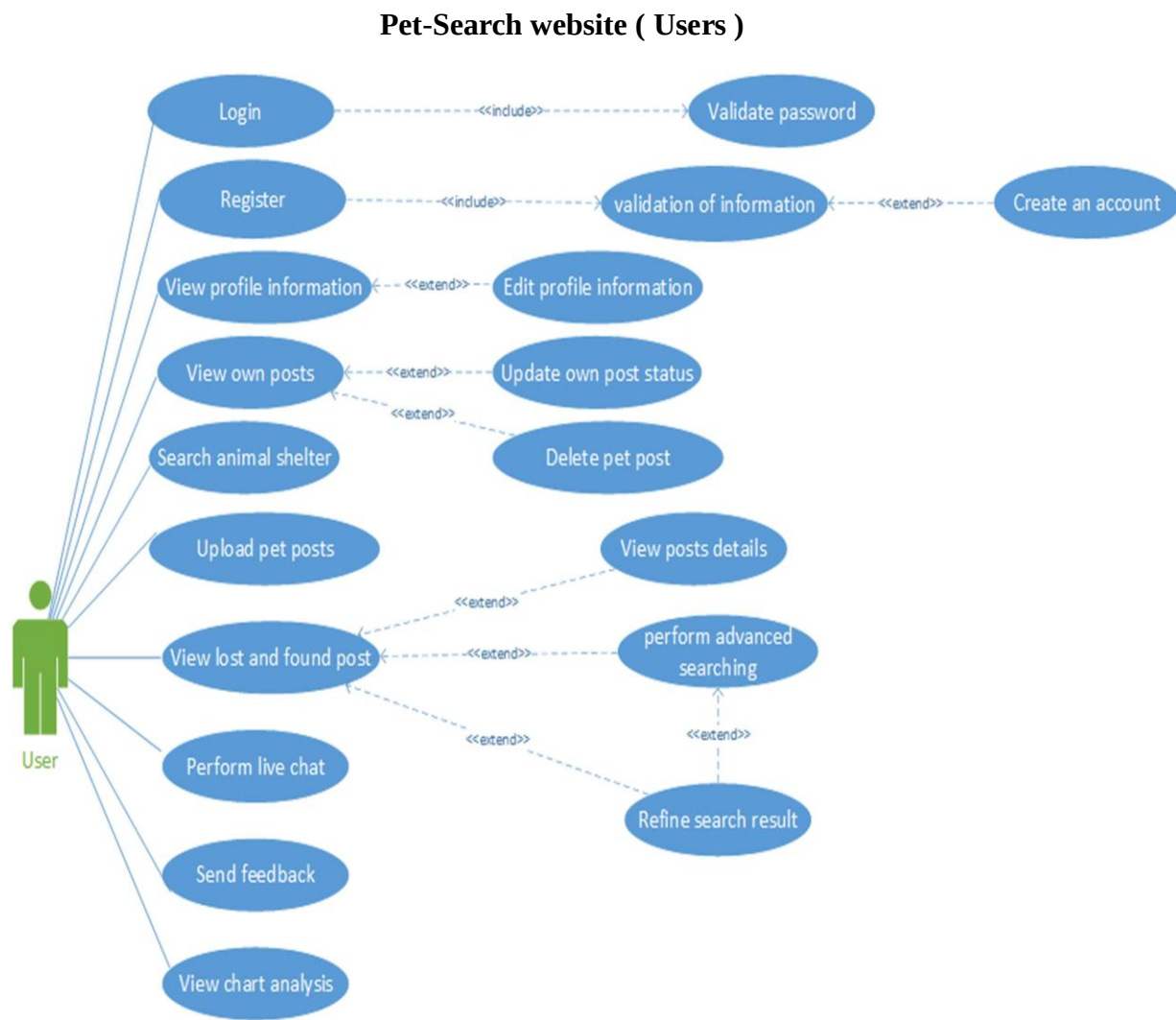
Figure 3.3 PhpMyAdmin control panel

The web server used in this project is Apache HTTP server, which is a popular free open source and cross platform web server and support with PHP server-side scripting languages. By supporting Apache and MySQL, this project is based on an open source software name XAMPP which stand for cross platform (X), Apache (A), MySQL (M), PHP (P) and Perl (P). It is a simple lightweight Apache distribution that make ease in developing a local web server. Besides,

it includes phpMyAdmin as the database management system. This system contains simple method to create tables and generating SQL script. Here stores the data of the whole web pages and also good for testing purpose as actions are able to directly carry out in this platform.

3.3 Use-Case Diagram for User

User(s)



3.3.1 Use-case Description

Use Case ID	UC001	Version	1.0
Use Case	Sign up for an account		
Purpose	To allow user register an account of Pet-Search website		
Actor	User		
Trigger	User clicks the sign up button in the home page		
Precondition	-		
Normal flow of events	1. User clicks on sign up button 2. The system display registration page to user/admin 3. User fills in their personal information into registration form 4. The system will validates the all the input data after users input their details. 5. The system display a “Registration Success” message 6. The system direct user to login page.		
Alternate Flows	4a. The system display messages “Input Data Invalid” user key in information wrongly		
Author	Ong Seng Hao		

Table 3.1 Sign up for an account Use-Case description

Use Case ID	UC002	Version	1.0
Use Case	Login into Pet-Search website		
Purpose	To allow users access into the website with an account		
Actor	User, Admin		
Trigger	User/Admin clicks the login button in the home page		
Precondition	User has registered an account		
Normal flow of events	1. User/Admin clicks on login button 2. The system display proper login page to user/admin 3. User/Admin fill in their username and password to login 4. The system will validates the input data 5. The system direct user/admin to homepage		
Alternate Flows	4a. The system display messages “Invalid username/password” if username or password is wrong.		
Author	Ong Seng Hao		

Table 3.2 Login into Pet-Search website Use-Case description

Use Case ID	UC003	Version	1.0
Use Case	View user profile		
Purpose	To allow users access into their profile and view information		
Actor	User, Admin		
Trigger	User/Admin clicks view profile button in the home page		
Precondition	User/Admin has login into the website		

Normal flow of events	1. User/Admin clicks on “My Profile” button 2. The system display user profile page to user/admin 3. The system will show personal information to user/admin 4. User/Admin can update their profile by clicking edit button 5. The system will display an edit profile form. 6. After user/admin update the newest information, system will update the data in database 7. A “Edit successful” message will prompted and direct into user profile page.
Alternate Flows	-
Author	Ong Seng Hao

Table 3.3 View user profile Use-Case Description

Use Case ID	UC004	Version	1.0
Use Case	Upload pet posts		
Purpose	To allow user posts the poster about his/her lost pet		
Actor	User		
Trigger	User clicks the “upload post” button in menubar to upload lost pet poster		
Precondition	User has login into the website		
Normal flow of events	1. User clicks on “Upload post” button. 2. The system displays a posting pet form to user. 3. User fills in their lost pet’s information such as photo, type, gender, location and so on 4. After clicking submit button, the posting steps is done 5. The post need to wait for admin to approve in order to show in website. 6. The system direct user to homepage		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.4 Post lost pet poster Use-Case Description

CHAPTER 3 SYSTEM DESIGN

Use Case ID	UC005	Version	1.0
Use Case	Searching for posts (missing,wandering,found)		
Purpose	To allow user searches the posters in the website		
Actor	User		
Trigger	User clicks the “view posts” button in the menu bar		
Precondition	-		
Normal flow of events	1. User clicks on “view post” button 2. The system direct user into a page full of pet’s poster 3. User can view post detail by clicking “view details’ button under posts. 4. User can do refine searching by filling up some information 5. The system will filter the pet poster according to the refine search fills. 6. The system display filtered pet poster to user.		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.5 Searching for lost pets Use-Case Description

Use Case ID	UC006	Version	1.0
Use Case	Searching for animal shelters		
Purpose	To allow user searches the animal shelters nearby his/her location		
Actor	User		
Trigger	User clicks the “animal shelters” button in the home page		
Precondition	User has login into the website		
Normal flow of events	1. User clicks on “animal shelter” button looking for animal shelters nearby location 2. The system will display the animal shelters according to different location. 3. User can click in the animal shelter name and system will direct user into the profile of the animal shelter		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.6 Searching for animal shelters Use-Case Description

CHAPTER 3 SYSTEM DESIGN

Use Case ID	UC007	Version	1.0
Use Case	View Own Posts		
Purpose	To allow user view the posts uploaded and update the status of posts		
Actor	User		
Trigger	User clicks the “my post” button in the user profile		
Precondition	User has login into the website		
Normal flow of events	1. User clicks on “My Post” button to view post uploaded by him/her. 2. The system will display the pet posts with few details. 3. User can update the missing status to found and safe. 4. User can click the delete button under the posts to delete it.		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.7 View own posts Use-Case Description

Use Case ID	UC008	Version	1.0
Use Case	View Chart Analysis		
Purpose	To allow user view the analysis and statistics of missing and wandering cases in Malaysia		
Actor	User		
Trigger	User clicks the “chart analysis” button in the home page		
Precondition	User has login into the website		
Normal flow of events	1. User clicks on “chart analysis” button to view the charts and graph analysis. 2. The system will display the charts and graphs according to different attributes. 3. User can hover the bar or area in the charts to show number of cases happened.		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.8 View Chart Analysis Use-Case Description

Use Case ID	UC009	Version	1.0
Use Case	Send Feedback		
Purpose	To allow user send their feedback about this website		
Actor	User		
Trigger	User clicks the “contact” button on the menu bar		
Precondition	-		
Normal flow of events	1. User clicks on “contact” button looking for contact way of PetSearch. 2. The system will display the contact way including address and contact number. 3. User can fill up the feedback form to send feedback.		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.9 Send Feedback Use-Case Description

3.4 Use-Case Diagram for Admin

Administrator

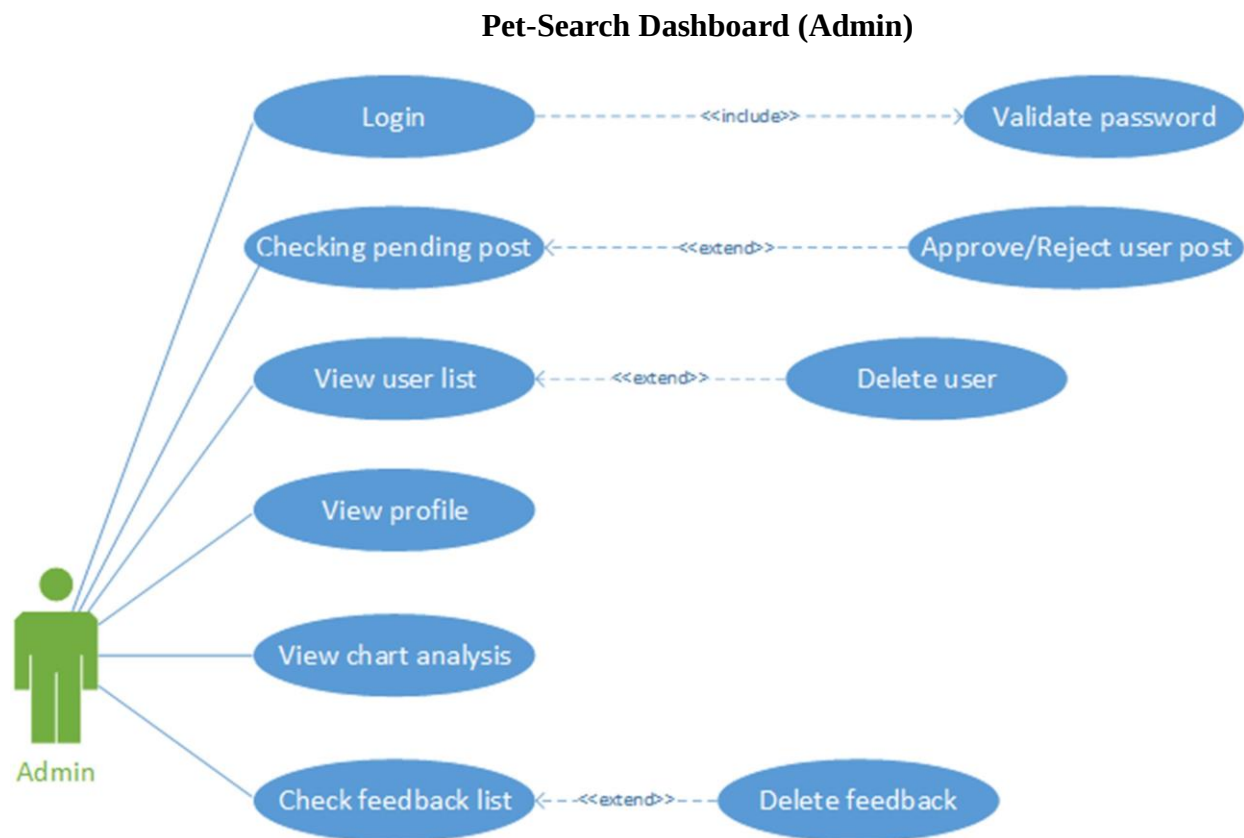


Figure 3.5 Use-Case Diagram of administrator system

3.4.1 Use-Case Description

Use Case ID	UC010	Version	1.0
Use Case	View user name list		
Purpose	To allow admin to view the user name list		
Actor	Admin		
Trigger	Admin clicks the view name list which contain the users information		
Precondition	Admin has to login as a administer		
Normal flow of events	1. Admin clicks on “View users list” button to check the users’ information 2. The system will display a table that show all the users information. 3. Admin can delete a user by clicking delete button		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.10 View user name list Use-Case Description

Use Case ID	UC011	Version	1.0
Use Case	Validate pending post		
Purpose	To allow admin validate the pending poster		
Actor	Admin		
Trigger	Admin clicks the “View pending post” button in the home page		
Precondition	Admin has login into the website as an administrator		
Normal flow of events	1. Admin clicks on “View Pending Post” button to validate the posts by users 2. The system will direct admin to another page and show pending post. 3. Admin check does the pending post meet requirements or not 4. Admin can either reject or approve the pending post		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.11 Validate pending post Use-Case Description

Use Case ID	UC012	Version	1.0
Use Case	Check feedback written by user		
Purpose	To allow admin view the feedback written by user		
Actor	Admin		
Trigger	Admin clicks the “View Feedback” in the menu bar of homepage		
Precondition	Admin has login into the website as an administrator		
Normal flow of events	1. Admin clicks on “View Feedback” button to check feedback about the system send by user 2. The system will direct admin to another which display the feedback written by user 3. Admin has the right to delete user’s feedback with harassment		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.12 Check feedback written by user Use-Case Description

Use Case ID	UC013	Version	1.0
Use Case	View Chart Analysis		
Purpose	To allow all type users view the chart analysis regarding missing pets.		
Actor	Admin,Users,Visitor		
Trigger	Users clicks the “View Chart Analysis” in the menu bar of homepage		
Precondition	-		
Normal flow of events	1. User clicks on “View Chart” button to view analysis about different type of charts. 2. The system will direct user to another which display the charts 3. Admin is able to view more charts than normal users		
Alternate Flows	-		
Author	Ong Seng Hao		

Table 3.13 View Chart Analysis Use-Case Description

3.5 Implementation Issues and Challenges

There are several challenges faced during the development of this project. The challenge are including as following:

Less pet finder websites found

There are only few pet finder websites in Malaysia even the other countries. Thus data collecting in this project is much harder due to shortage of familiar websites.

Performance of website development

As the work done in this project is not a complete pet finder website, some features that do not run with well performance will be further improving and developing in project II.

Performance of Live Chatting function

A live chat function with administrator has been implemented in this project. But the performance of this function is highly dependent on whether admin is online or not. The message will just be sent to admin and get no reply before admin online due to shortage of admin.

3.6 Chapter Summary

In this chapter, the system block diagram and use cases diagram of PetSearch have been described to understand how the system been designed and developed. There are two use-cases diagrams which for users and admin. Use cases descriptions are provided in details to describe about the features and functionalities.

Chapter 4: Methodology and Tool

4.1 Methodologies

This part will describe the methodology of the project. The phase of development as show in Figure 4.1 will be applied in this project is described as follows.

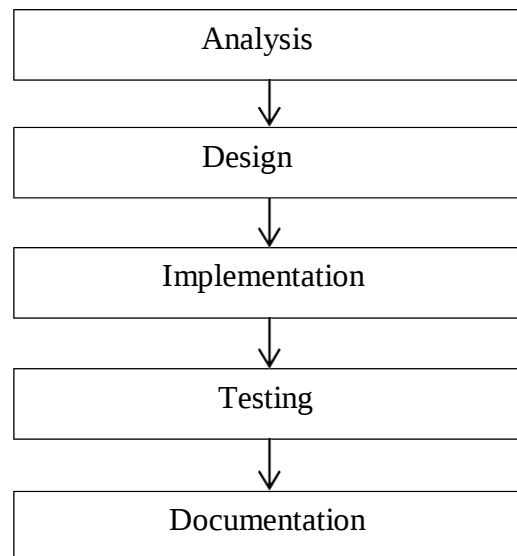


Figure 4.1 Phase of Development of this Project

Analysis Phase

In analysis phase, literature review will be conducted by reviewing some similar pet finder websites. The data and information were gathered and collected during this phase. Thus, the strength and weakness between them are able to compare to each other. After reviewing for the related works, the project objectives and project scopes of this website development project can be defined clearly.

Design Phase

The user interface and functionalities for this “PetSearch” website will be developed during the design phase. In this phase, an intuitive user interface is developed. In additions, the hardware and software specification are identified in this phase. The website will be designed by using CSS3 and HTML coding as the graphical user interface is designed completely well.

Implementation Phase

During the implementation phase, the coding part of the actual project is started to build. The languages used for this website development project is PHP and JavaScript. The coding will be implemented and the correctness of the coding will be done in this phase.

Testing Phase

After developing the “PetSearch” website which is able to perform the operations and function, a testing phase of this project will be carried out. The “PetSearch” website will be tested by developer only in this case. The reason is because there is hard to find people with currently missing pet. However, the data collect is from internets which are true and verify data. After that, the question list will be conducted and the data collected will be used to determine where the website is well developed or not.

Documentation Phase

After the testing phase is done, the output produced in the previous phase is documented during the last phase which is documentation phase. The results of the testing and data collection for this website development project will be also included in the documentation.

4.2 System requirements

There are some proposed hardware and software required in order to develop this project. For the hardware components, it consist the Windows, processor, random-access memory (RAM), input and the system type of computer. The software components are including the front-end, back-end and the interface.

4.2.1 Hardware specifications

Components	Requirements
Windows	Windows 10
Processor	Intel® Core™ i7-6500U CPU @ 2.50GHz 2.59 GHz
RAM	8.00GB
System Type	64-bit Operating System
Input	Mouse and Keyboard

Table 4.1 Components and requirements for Hardware

This project will be developed by Windows 10 of personal computer operating system. Besides that, the personal computer consists with Intel® Core™ i7-6500U CPU @ 2.50GHz 2.59 GHz processor and 8GB RAM available. Other than that, the computer system will be using the 64-bit Operating System. Mouse and keyboard will be used as the input for this project.

4.2.2 Software specification

Components	Requirement
Back-end	Visual Studio Code, phpMyAdmin
Front-end	HTML, MySQL, PHP, JQuery, CSS
Interface	GUI

Table 4.2 Components and requirement for Software

For this website development project, some back-end software like Visual Studio Code and phpMyAdmin have been used to develop the project. For the coding part, there are some languages such as HTML, PHP, CSS3 and JQuery as the front-end of this project. The Hypertext

Markup Language(HTML) can describes the website with new elements, behaviours, attribute and so on; Hypertext Preprocessor (PHP) may be better to connect websites elements and data with database and exception handling; JQuery can makes some event handling like clicking buttons in simple steps; MySQL stored the database of this website development project.

4.3 Verification Plan

A website named PetSearch has been developed in this project to make ease of people find their missing pets by uploading the poster onto the platform. Thus, the complete website must be distributed to people and make them try it and upload missing posts to perform testing. Verification is an important step to ensure the maturing system design meets the requirements stated so far. However, there will be difficulty by collecting the data from people as it requires a lot of time and correctness of data might be questionable. Therefore, the data have been collected from a big and famous website in Malaysia named “Pet-Finder”. As stated in Chapter 2 literature review part, this is the biggest pet finder website in Malaysia currently and there are tons of lost and found posts on the platform.

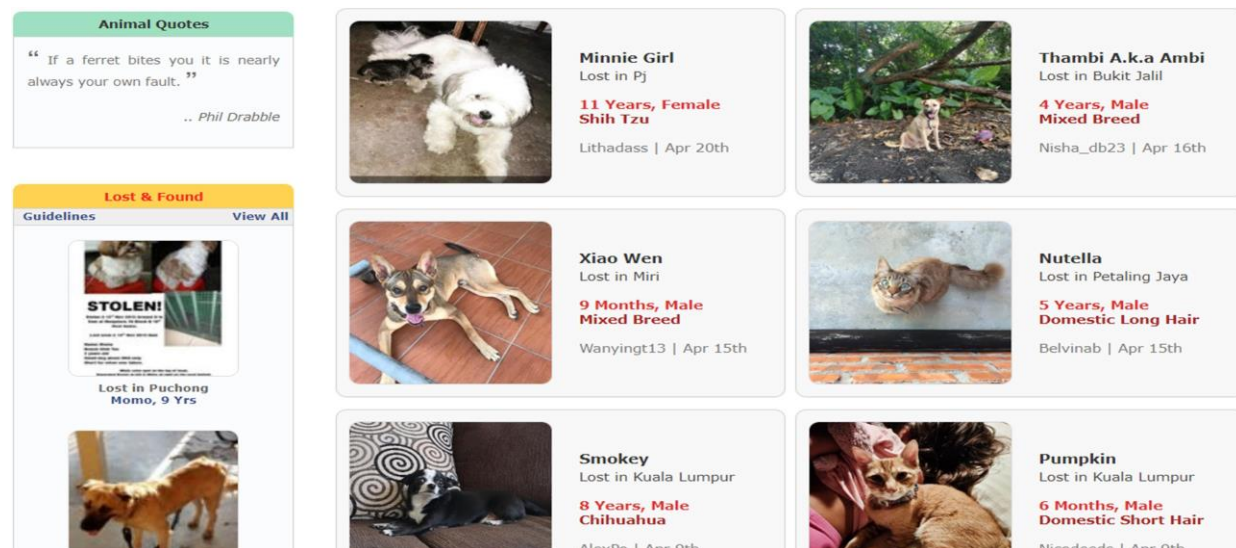


Figure 4.2 verification data collection

By collecting the data from this pet finder website into the database, few steps have been taken. The details of the posts such as pet name, location, pet type, missing date, gender and also the pet image have been collected to make sure the correctness of the data. It helps in generating the analysis and statistics which will be discuss in the below section. After collecting the data,

the next step is to load those data collected into the project database PhpMyAdmin. A feature has been created in PetSearch website to let users upload their posts, either missing or found wandering. This feature has been used to load the data collected into the database by filling the data into the upload form in PetSearch website. Of course front-end will not shows how it process when inserting the data into database. From the back-end side, Figure 4.5 shows the function and query to insert the filled form's data into posts table in database. Basically the front-end side for uploading the posts with details to the server, it interprets with PHP codes and query to insert into PhpMyAdmin table in Figure 4.6.

```
$p_name = $_POST['p_name'];
$p_type = $_POST['type'];
$p_gender = $_POST['gender'];
$p_location = $_POST['location'];
$p_color = $_POST['color'];
$p_coat = $_POST['coat'];
$p_date = $_POST['date'];
$p_size = $_POST['size'];
$p_desc = $_POST['p_desc'];
$p_status=$_POST['status'];

$username=$_SESSION['username']['username'];
$user_id=$_SESSION['username']['id'];
$user_phone=$_SESSION['username']['phone_no'];
$user_email=$_SESSION['username']['email'];

$image = $_FILES['image']['name'];
$temp_name = $_FILES['image']['tmp_name'];
$target = "missing_images/".$basename($image);

$upload_post = "insert into posts (user_id,user_name,appr_id,type_id,coat_id,color_id,gender_id,location_id,size_id,status_id,p_name,p_phone,p_
                'p_size','p_status','$p_name','$user_phone','$user_email','$p_date','$image','$p_desc')";
$run_post = mysqli_query($con,$upload_post);

move_uploaded_file($_FILES['image']['tmp_name'], $target);
```

Figure 4.3 Php Codes and Query for insert data

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	post_id	int(255)			No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	user_name	varchar(100)	latin1_swedish_ci		No	None			Change Drop More
4	appr_id	int(11)			No	None			Change Drop More
5	type_id	int(11)			No	None			Change Drop More
6	coat_id	int(11)			No	None			Change Drop More
7	color_id	int(11)			No	None			Change Drop More
8	gender_id	int(11)			No	None			Change Drop More
9	location_id	int(11)			No	None			Change Drop More
10	size_id	int(11)			No	None			Change Drop More
11	status_id	int(11)			No	None			Change Drop More
12	p_name	varchar(100)	latin1_swedish_ci		No	None			Change Drop More
13	p_phone	varchar(100)	latin1_swedish_ci		No	None			Change Drop More
14	p_email	varchar(100)	latin1_swedish_ci		No	None			Change Drop More
15	p_date	date			No	None			Change Drop More
16	p_image	text	latin1_swedish_ci		No	None			Change Drop More
17	p_desc	text	latin1_swedish_ci		No	None			Change Drop More

Figure 4.4 Posts table in PhpMyAdmin

4.4 Analysis and Statistics

4.4.1 PetSearch Analysis

Map Analysis

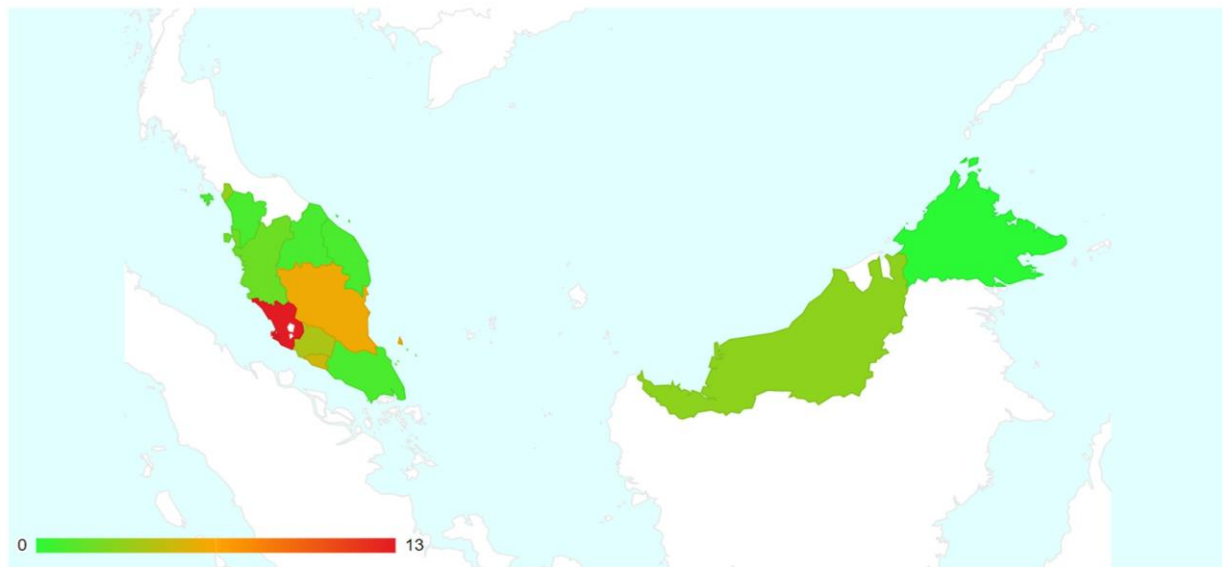


Figure 4.5 Map analysis

Figure above shows the map analysis of missing pet and wandering pet cases happened in Malaysia by using the PetSearch website. The main purpose of this map analysis is to increase the awareness of people about the missing and wandering pet issues in Malaysia. There are total of 43 posts uploaded to PetSearch (2017-2020). The states of Malaysia are highlighted from light green to red color. From the bottom-left bar it clearly display that the darker the color, more cases happened in the state. From this graph, it shows that Selangor has the highest lost pet rate compared to other states with 13 cases. The area of Selangor has becomes red color which is an efficient way for users to acknowledge that this state is currently with serious missing and wandering pets issues. It followed by Pahang which has the second highest missing and wandering cases in Malaysia. However, the other states with green color do not mean that there are only little missing pet cases. Noted that there are only roughly 50 data has been collected in doing this analysis, the other states may has lower missing rate than Selangor or Pahang but missing and wandering rate is increasing year by year too.

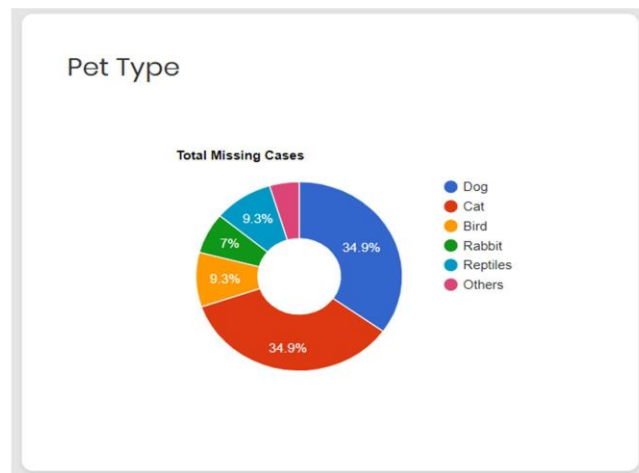


Figure 4.6 Pet Type statistics

Figure 4.6 above shows the missing and wandering pet's analysis by differentiate with the types of pets. The types of pet has been classify into seven type which includes dog, cat, bird, rabbit, hamster, reptiles and others. In the pie chart above, dog and cat have the highest rate of missing which come to around 35% of each. Both of them are the famous type of pet in Malaysia. Besides, birds and reptiles have roughly 9% of missing and wandering rate which also consider very high. From this pie chart, a hypothesis can be made that pets which frequently going outside might has the high rate of went missing.

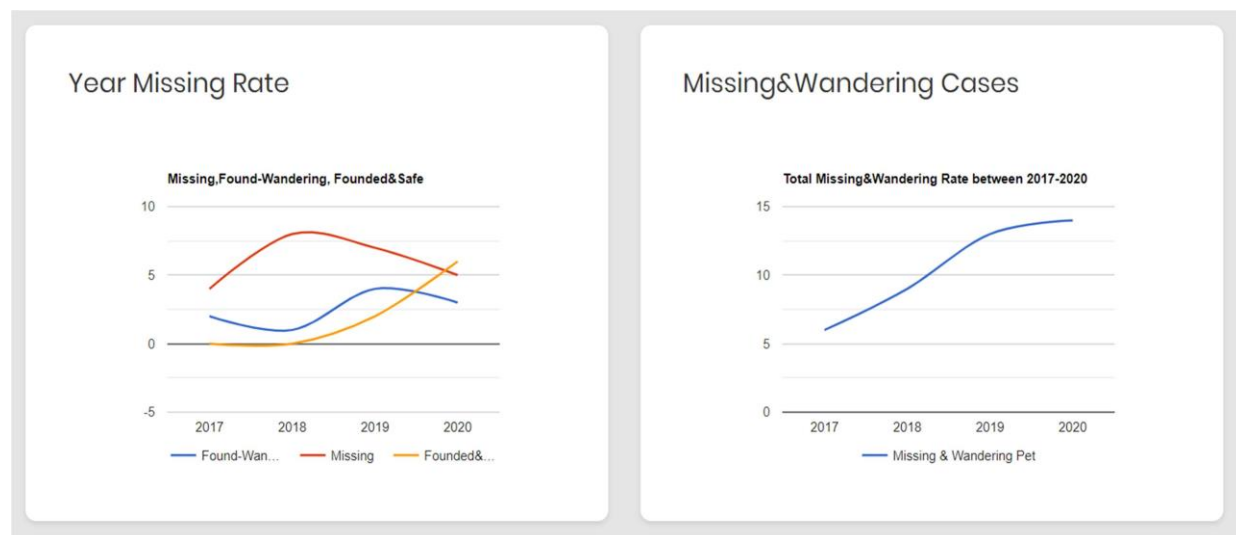


Figure 4.7 Year Missing Rate graph

Figure above shows two line graphs, the line graph on the left side is the rate of missing, found wandering and found safe in years 2017 to 2020. However, the right side shows the line

graph of total missing and wandering cases happened in 2017 to 2020. From the graph above, it shows clearly that the missing and wandering rate keep on increasing year by year. In year 2017, the found rate of missing and wandering cases is very low. This status sustained to year 2018 with a higher rate of missing and wandering but found rate is very little. However, although the cases increased but there is an enhancement of found safe rate during year 2019. One of the reasons might be the importance of microchip has been noticed by public and there are more owners bring their pets to insert microchips. Coming to year 2020, the total cases of missing and wandering pet become higher but the found rate also has increased. From two of the graphs above, it shows the increase rate of missing and wandering pet cases and from these cases there are many pets haven't been found yet.

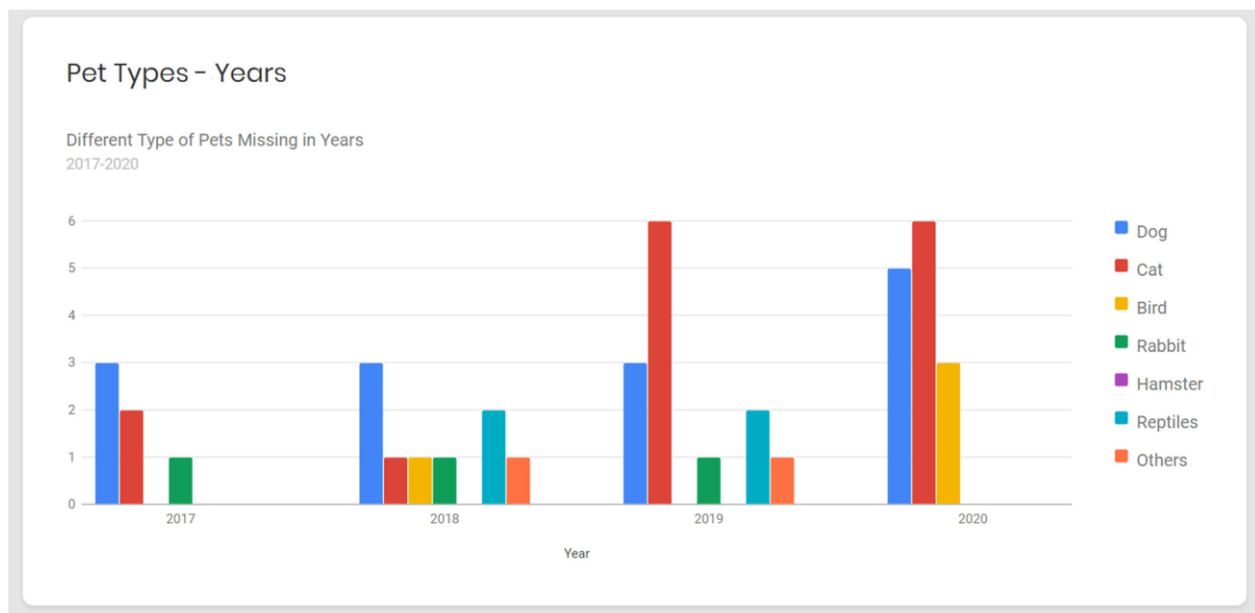


Figure 4.8 pet type & year chart

The bar chart above states the missing and wandering cases between each types of pet and years (2017-2020). As stated above that the cat and dog are the highest rate of missing pet in Malaysia, thus on the bar chart above it shows that both of them has a high number of total cases in each year. For the first two year, dog has the highest rate of missing than other types of pet. However, there are more cats went missing or wandering during year 2019 and 2020 which means that the missing and wandering rate of cat has been increasing year by year.

4.4.2 Lost Pet Statistics

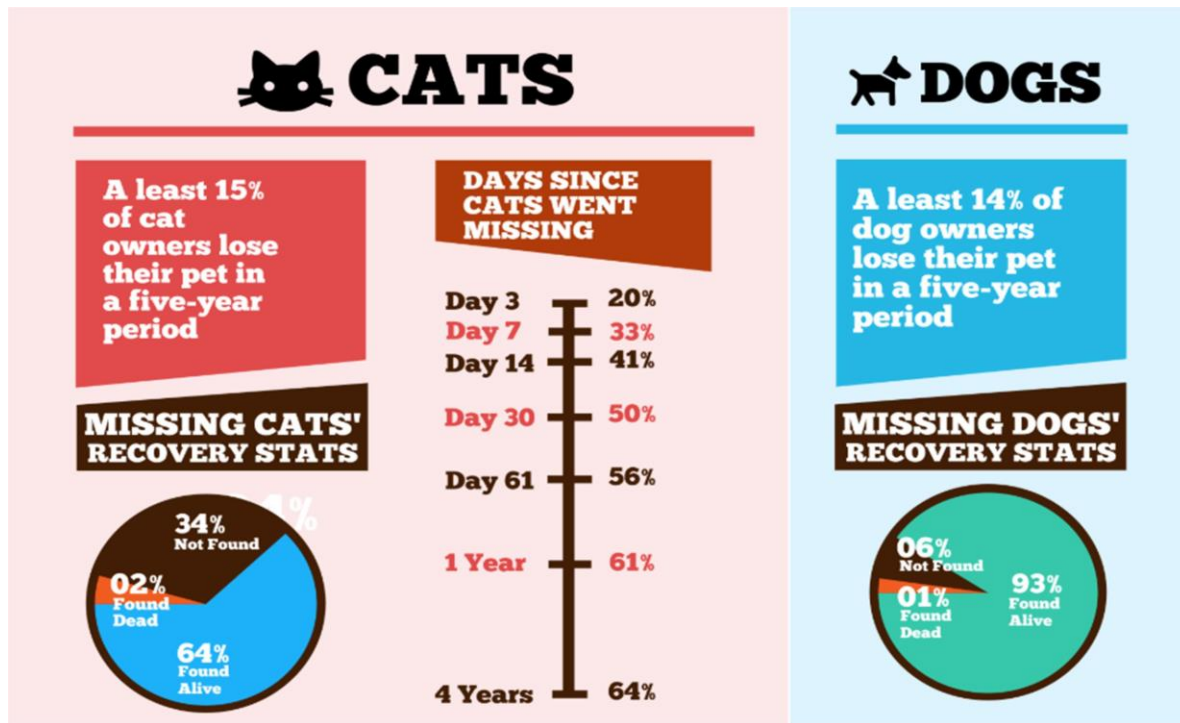


Figure 4.9 Cat and Dog statistic

The figure 4.9 above is a research statistic report conducted by America Society of the Prevention of Cruelty to Animals (ASPCA). They have surveyed pet owners and found out that 15% of cat and 14% of dog went missing once in a five-year period. From the statistics above, it stated about the missing cat which there is 64% of them are found alive, 2% found in dead and 34% of missing cats are still not found yet. For dog, it has a high found alive rate which is up to 93% and only 6% of them are still missing. According to studies, the return-to-owner (RTO) rate for cats is only 1.5-4.5%. RTO rate is the percentage of pets that are returned to their owner after they have been brought to animal shelter or animal clinic. The reasons of low RTO rate of cats might because of there are very few cat with ID tags or the microchips are not registered. Besides, owners might not check with the animal shelters nearby to search for his/her lost pets. There are also lost pets wandering around but may have only few people helping out them.

4.5 Timeline

In this final year project II, it will more focus on implementation, analysis and design and lastly documentation. The project scope and objectives are the deliverables in the end of planning phase in order to build a basic planning first before going through the project. The project scope determines the project goal too. Besides, analysis phase is including literature review, data collection, identifying user requirements and the result need to be documented. During this stage, some similar systems have been review and evaluated, the strength and limitation are also determined clearly. Next, some system design diagrams have be designed during the design phase. Methodology, design specification and features of the system also defined in this stage. Coming to the implementation, the data collect has been verified by collecting true and real data from internet. Combining with development of this website, the documentation part has been complete in a comfortable range.

4.5.1 Gantt Chart

Task	Duration	January				February				March				April			
		Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
Chapter 1: Introduction	1	■															
Chapter 2: Literature Review	1	■															
Chapter 3: System Design	2		■	■													
Develop Refine Search features	2				■	■							■	■			
Develop dashboard features	4						■	■	■	■							
Develop pending post features	2									■	■	■					
Chapter 4: Methodology and tools	1										■	■					
Chapter 5: Implementation and Testing	2											■	■				
Chapter 6: Conclusion	1												■				
Overall System Development	2													■	■	■	
Update FYP 2 Documentation	1															■	■
Conclude FYP 2	1																■

Figure 4.10 Gantt Chart for FYP 2

4.6 Chapter 4 Summary

The methodologies, system specification and design approach have been discussed in this chapter. Analysis and statistic of missing pet cases have been conducted as well. With the explanation of verification plan, it described how the data is collected and how to import the data into database. Timeline of this final year project II is well scheduled. The Gantt chart is also planned at the beginning of this project.

Chapter 5: Implementation and Development

5.1 Overview

There are some features done in this Pet-Search project including login and registration system, user profile system, animal shelter system, admin system and so on. The UIs of this Pet-Search website also have been design well and colourful.

5.2 Login system

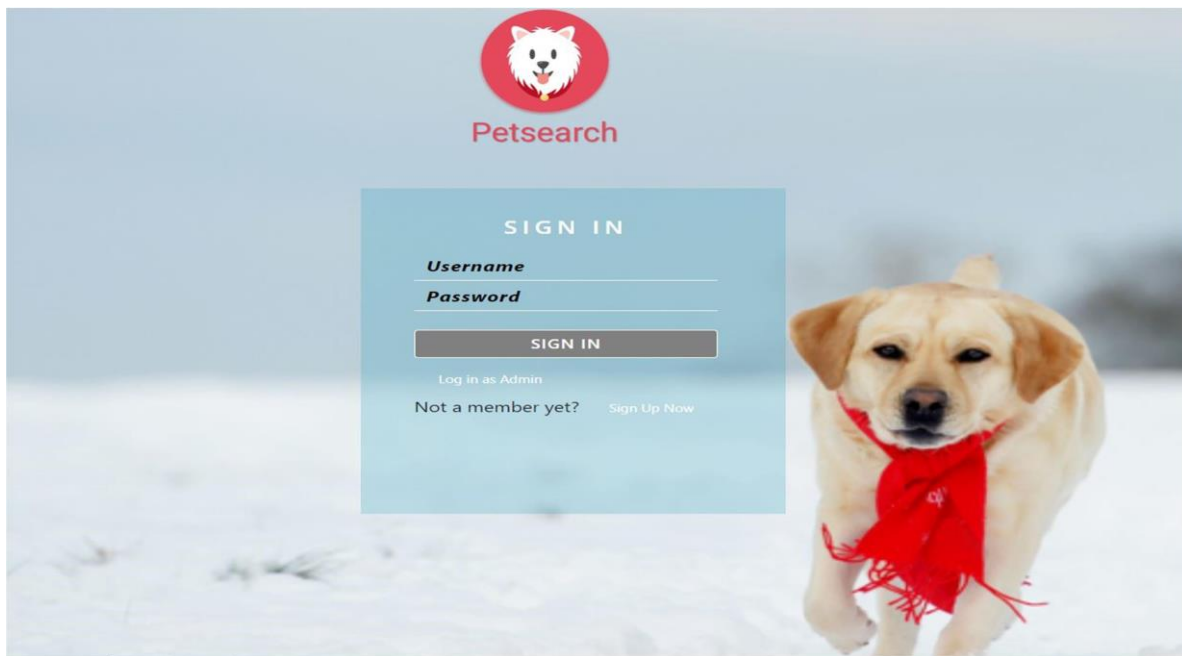


Figure 5.1 Login Page of Pet-Search

This interface allows users to login to the Pet-Search website. Users are required to key in the username and password in order to sign in. An error message will be prompt either the username or password does not matched and require users to input again. They have to click the sign in button in order to login into the Pet-Search and system will direct users to the homepage. If users haven't created an account, a 'Sign Up Now' link which has a linkage to registration page is available to enhance efficiency so users do not have to go to homepage and click registration button. A linkage to admin login system is provided too. The design in this interface is using light blue background and the login form is simplicity for users.

5.3 Registration

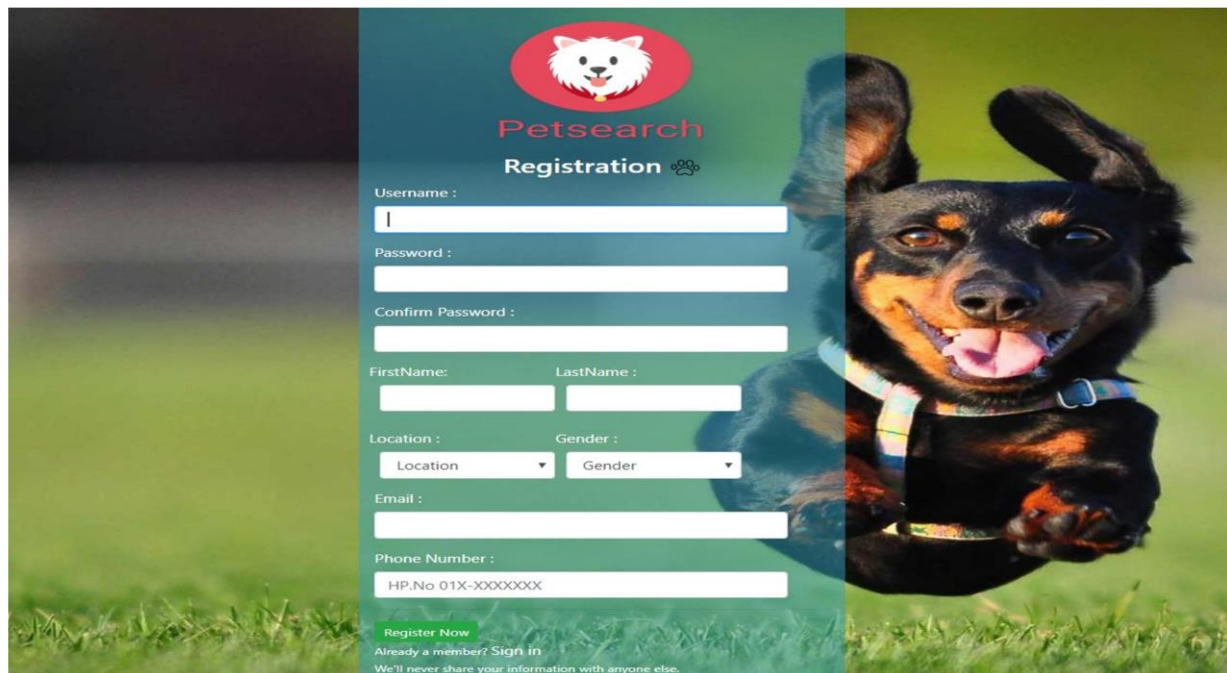
The image shows a web registration form for 'Petsearch'. The form is overlaid on a background image of a black and tan dog jumping in a grassy field. The form has a light blue header with the 'Petsearch' logo (a white cat face in a red oval) and the text 'Petsearch Registration' with a paw print icon. The form fields include: 'Username :', 'Password :', 'Confirm Password :', 'FirstName:', 'LastName:', 'Location :', 'Gender :', 'Email :', and 'Phone Number :'. The 'Location' and 'Gender' fields are dropdown menus. The 'Phone Number' field has a placeholder 'HP.No 01X-XXXXXXX'. At the bottom, there is a green 'Register Now' button, a link 'Already a member? Sign in', and a small disclaimer 'We'll never share your information with anyone else.'

Figure 5.2 Registration page of Pet-Search

In the registration interface, users are required to input their username, password, first name, last name, location, gender, phone number and email in order to create an account for Pet-Search website. A double confirmation of password is needed to ensure users do not mistyping their password. All fields are required to fill in before clicking the register button otherwise error will be prompt. After users register an account, the system will direct users to the login page.

5.4 Homepage

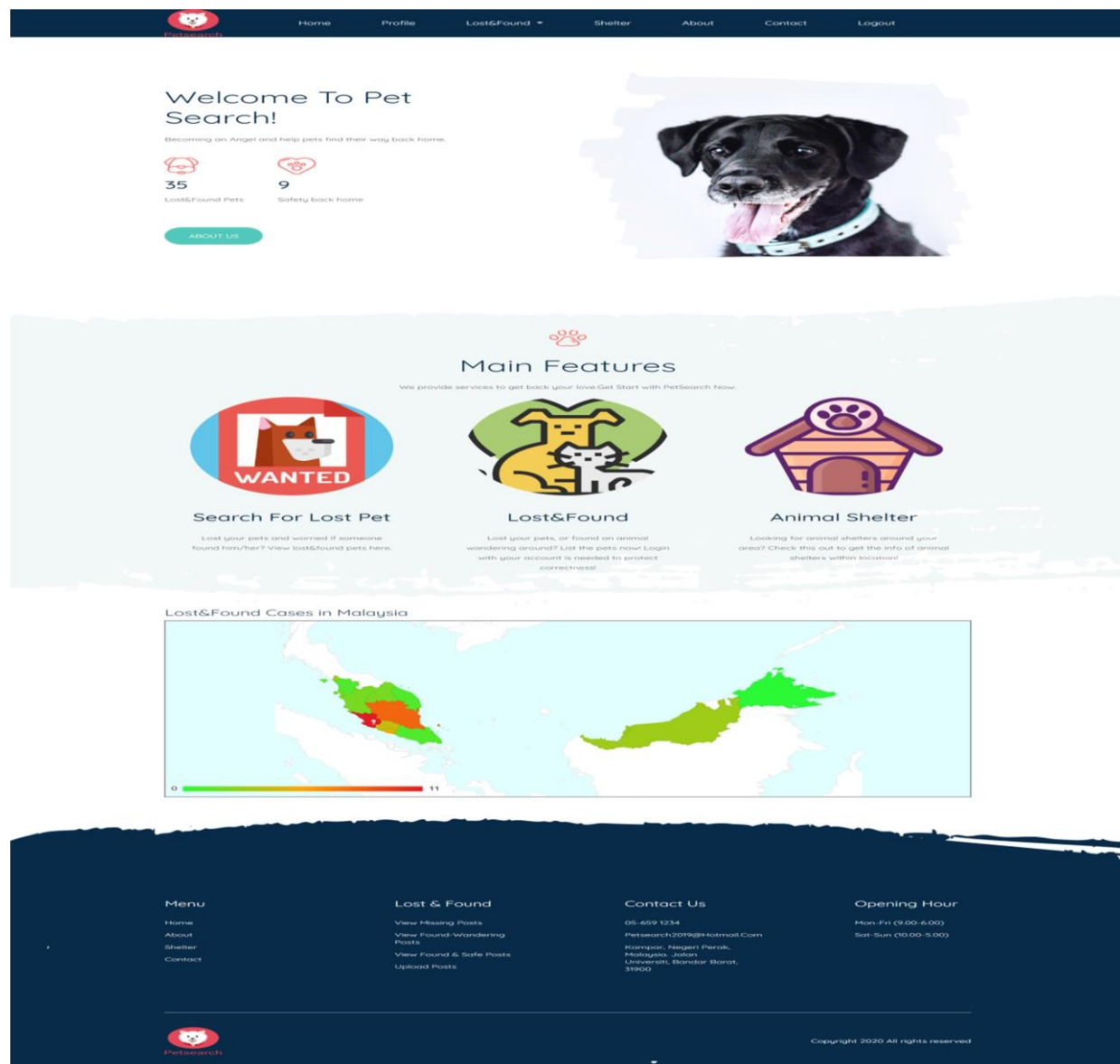


Figure 5.3 Homepage of Pet-Search

Figure 4.3 showing the homepage of Pet-Search. A top navigation bar contains some buttons which has its own features and function in every page in Pet-Search. Other than that, the homepage has provided the main features of this website which is search posts, lost & found and animal shelter function which link to these feature interfaces. Consistency colour and are used with relevant pages to enhance the design.

5.5 User Profile System

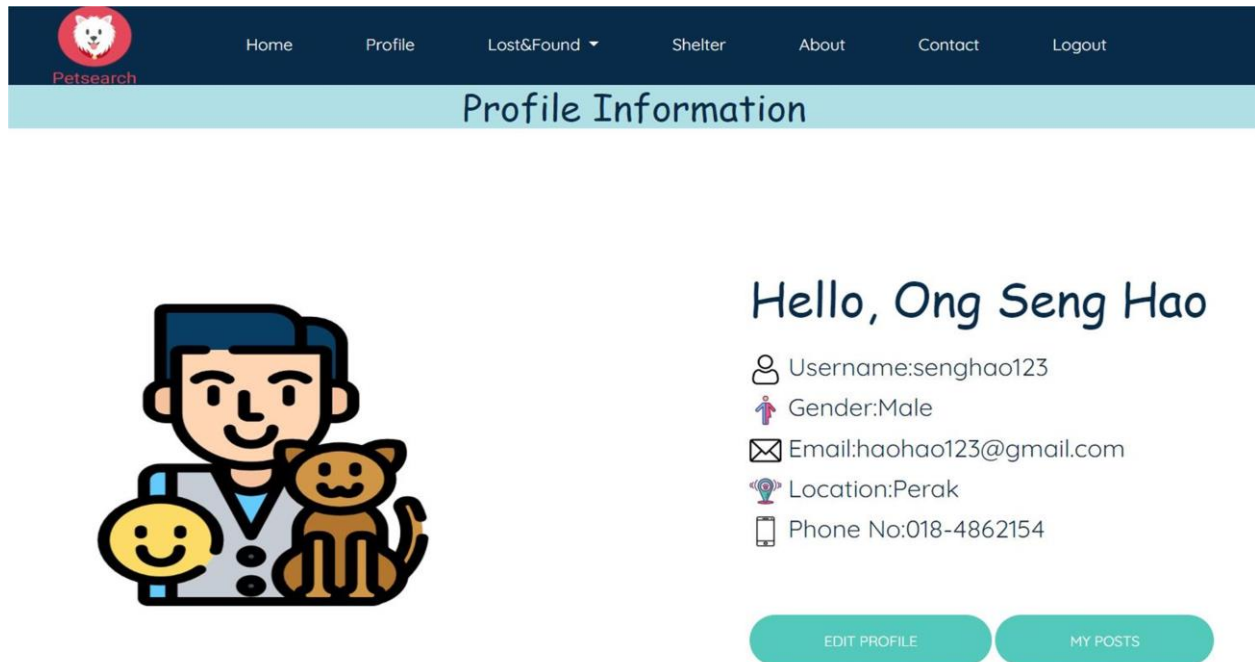


Figure 5.4 User Profile of Pet-Search

The screenshot shows the 'Edit Your Profile Information Within Few Steps' form in the Pet-Search application. The form is located below the 'Profile Information' header. It contains several input fields for updating user information: Username *, New Password *, New Email *, New Phone *, Location *, Gender *, First name *, and Last name *. Each field is represented by a colored rounded rectangle (light blue, light yellow, or light grey) with its label inside. At the bottom left of the form is a teal button labeled 'EDIT PROFILE'.

Figure 5.5 Edit profile function of Pet-Search

Users can view their profile information by clicking the view profile button in the top navigation bar. After that, system will direct users to their profile and the information stored in database during registration will be retrieved and shown in this page in a well design container. Besides, there is an edit profile button in the bottom of user profile page which allow users to edit their profile information. The edit form in Figure 4.5 contains some input fields which required users to fill in thus they can update the profile information. After fill up the edit form, click the green edit button to confirm the updates.

5.6 View My Post

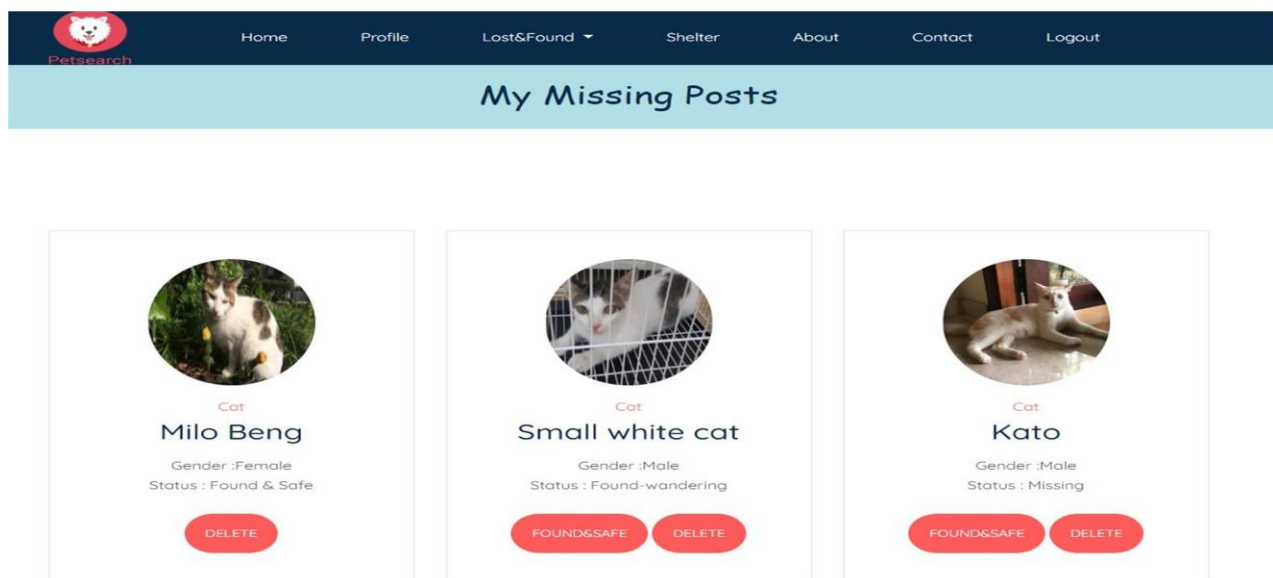
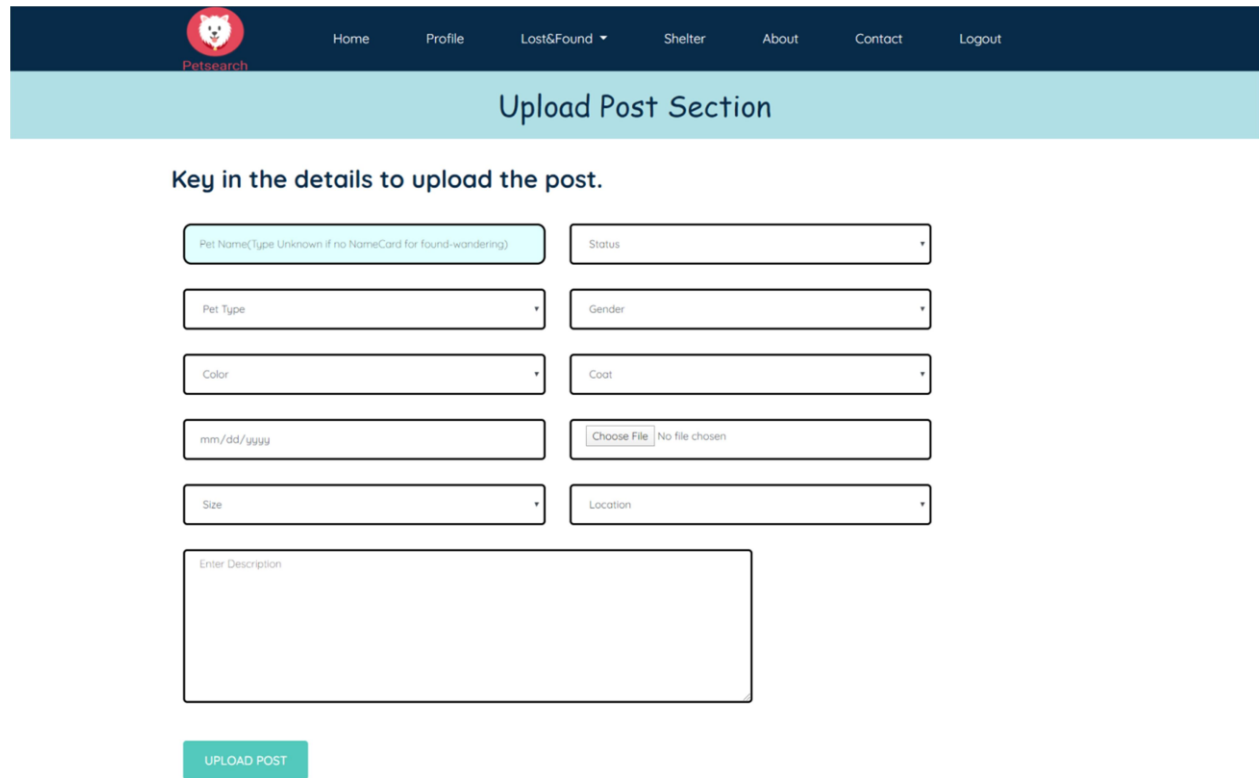


Figure 5.6 My post function of Pet-Search

After the missing or wandering posts uploaded by users, users are able to check the posts that he/she uploaded in “My Post” section. In this feature, the page shows the posts uploaded by users and they can update the post’s status from missing or wandering to found and safe to claim that the pet has been found safely. Besides that, users are able to delete their own posts too.

5.7 Upload Post



The screenshot shows the 'Upload Post Section' of the PetSearch website. At the top is a dark blue navigation bar with the PetSearch logo and links for Home, Profile, Lost&Found, Shelter, About, Contact, and Logout. Below this is a light blue header with the text 'Upload Post Section'. The main content area has a heading 'Key in the details to upload the post.' followed by a form with the following fields:

- Pet Name** (Text input, placeholder: 'Type Unknown if no NameCard for found-wandering')
- Status** (Dropdown menu)
- Pet Type** (Dropdown menu)
- Gender** (Dropdown menu)
- Color** (Dropdown menu)
- Coat** (Dropdown menu)
- mm/dd/yyyy** (Text input for date)
- Image Upload** (Buttons: 'Choose File' and 'No file chosen')
- Size** (Dropdown menu)
- Location** (Dropdown menu)
- Description** (Large text area with placeholder 'Enter Description')

At the bottom of the form is a green button labeled 'UPLOAD POST'.

Figure 5.7 Upload post function of Pet-Search

Figure above shows the upload post feature of PetSearch. Before accessing to this upload post section, users are required to login with an account. This is to ensure there is no post uploaded with harassment. In order to upload a missing post, users have to fill in the details in the form about the missing or wandering pets. It includes the type of pet, status, name of pet, gender, colour, length of coat, missing date, image of pet, size of pet, location missing and also the description. After fill up the form, click the upload post button in the bottom to upload the post. However, the post needs to be approved by admin first in order to show in PetSearch website.

5.8 Search/Browse Posts

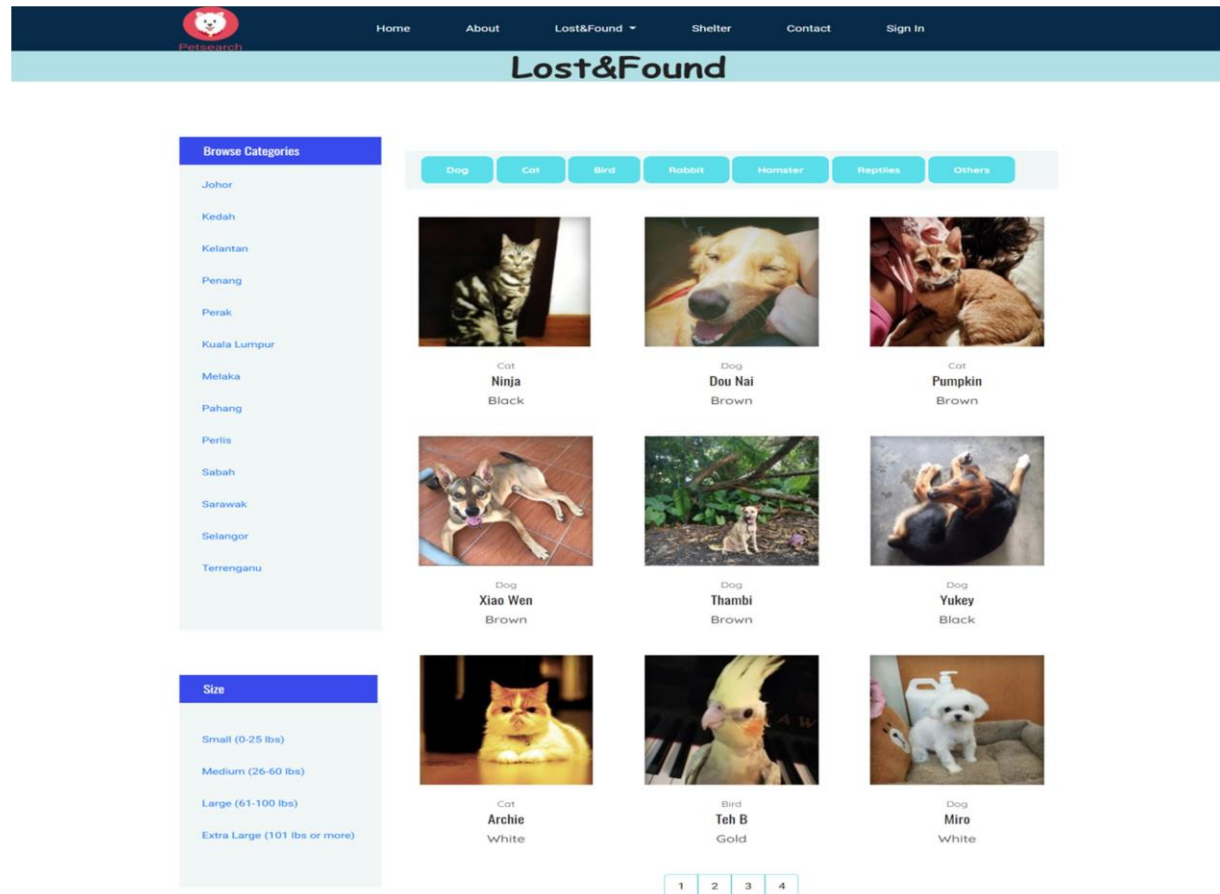


Figure 5.8 Search posts function of Pet-Search

Users are able to search or browse for pet's posts in PetSearch. There are three lost and found pages for users to browse which are missing, found-wandering and found safe posts. The image and details of each pet posts are shown according in a design arrangement. In the bottom of the pages, there is a simple design pagination bar to allow users click and goes to the page clicked. At the top side of those posts, the columns with each of the pet's type inside are the small filter for users. For example, the page will shows with only cat's post if users click the cat button on the top to filter the posts. There are similar filtering features on the left side which called sidebar. In the sidebar, it allows users to filter the posts by location and size of the pets. By clicking on the posts, the system will link users to the detail's page of the post.

5.9 View Post Details

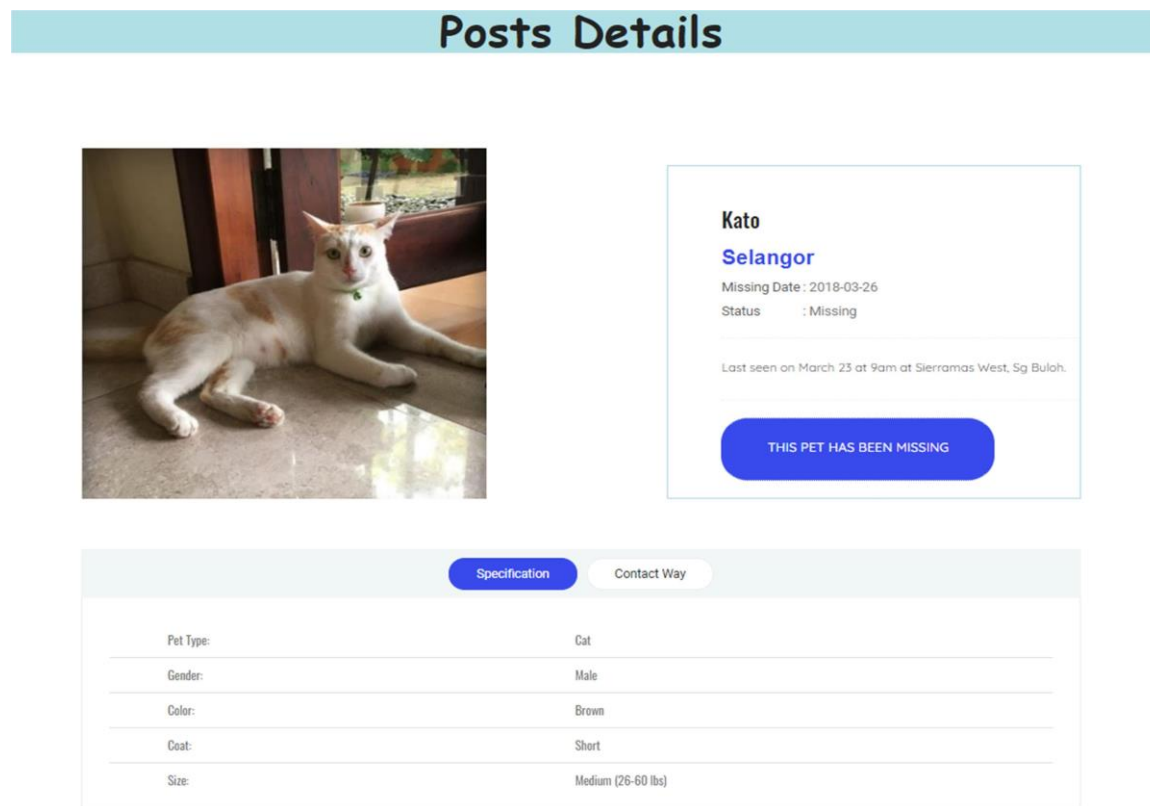


Figure 5.9 View post details function of Pet-Search

Users can view the post's details by clicking on the post or the "View Details" button of each post. After that, system will link the users to the posts detail page which show every detail accordingly to users. The information shown in this page are retrieved from database which the owner filled up when uploads the missing posts. Besides, there are back-end codes generated automatically shows the contact way of the posts. The contact way information is retrieved from database which is also the profile information of the owner. This mean that if the pet owner has change his/her contact way, just edit the profile information and the post's details will automatically update.

5.10 Refine Search

Advanced Searching

It faster your searching upon posts.

Pet Type*	Status
Gender	Color
Coat	Year
Size	Location

REFINE SEARCH

Figure 5.10 Refine Search function of Pet-Search

A refine search function is able to enhance the effectiveness of users in searching posts. The form above shows the attributes that users can advance search for. This includes the type of pet, status, gender, colour, coat, missing year, size of pet and also location missing. Advanced searching is a feature that saves user's time by filtering the posts with certain details or information. It speeds up the searching action by just selecting the detail's columns in the form. For example, a user needs to search the posts for missing dog happened in Perak. He/She just has to select the according field such as type of pet, status and location to advance searching for the posts.

5.11 Animal Shelters Function

Animal Shelter

Below are the contact information of animal shelters according to different states. Please kindly contact them if you are facing some issues.

West Coast

Kedah	Penang	Perak	Perlis	Selangor	Negeri Sembilan	Melaka	Johor
Name	Address					Contact Information	
SPCA Penang	Jalan Jeti Jelutong, Jelutong, 11600 Jelutong, Pulau Pinang					04-281 6059	
4PAWS Penang Animal Welfare Society	429, Jalan Hassan Abbas, Teluk Bahang, 11050 Penang					018-542 0705	
Meow Cat Shelter	501, Jalan Ayer Putih, Bandar Baru Air Putih, 11000 Balik Pulau, Penang					016-422 9091	
Positive Pet Animal Clinic	HQ 45, Lorong 22/503, Bandar Tanjong Mutiara, 14120 Simpang Ampat, Pulau Pinang					010-885 8759	

East Coast

Kelantan	Pahang	Terengganu	
Name	Address		Contact Information
Kuantan Animal Rescue & Education	26000 Kuantan, Pahang		-
Meow Island	26600 Pekan, Pahang		meowislandpekan@gmail.com
Cats Villa Kuantan	A-6878, Jalan Kubang Basya, Taman Peng On, 25250 Kuantan, Pahang		012-954 9599

East Malaysia

Sarawak	Sabah		
Name	Address		Contact Information
SPCA KK Rehabilitation And Adoption Centre	Jalan Kipadan Gana, Mak Aman, 89000 Papar, Sabah		019-890 9660 info@spcakk.org
Society For The Prevention of Cruelty To Animals Sandakan	90000 Sandakan, Sabah		010-227 8991

Figure 5.11 Animal Shelters Page of Pet-Search

An animal shelters function is provided for users to check for the information of animal shelters within their location. The states in Malaysia have been differentiating into three types of table which are West Coast, East Coast and East Malaysia. These tables are designed in a section table which means users can view different table by clicking on different header. Therefore, users can look for the information of animal shelter nearby them by clicking the location on top of the table. The information shown including the name, address and contact information of the animal shelters. Thus, users can look for nearby animal shelters for further purpose such as sending found pets or looking for lost pets with this animal shelters function.

5.12 Feedback Features

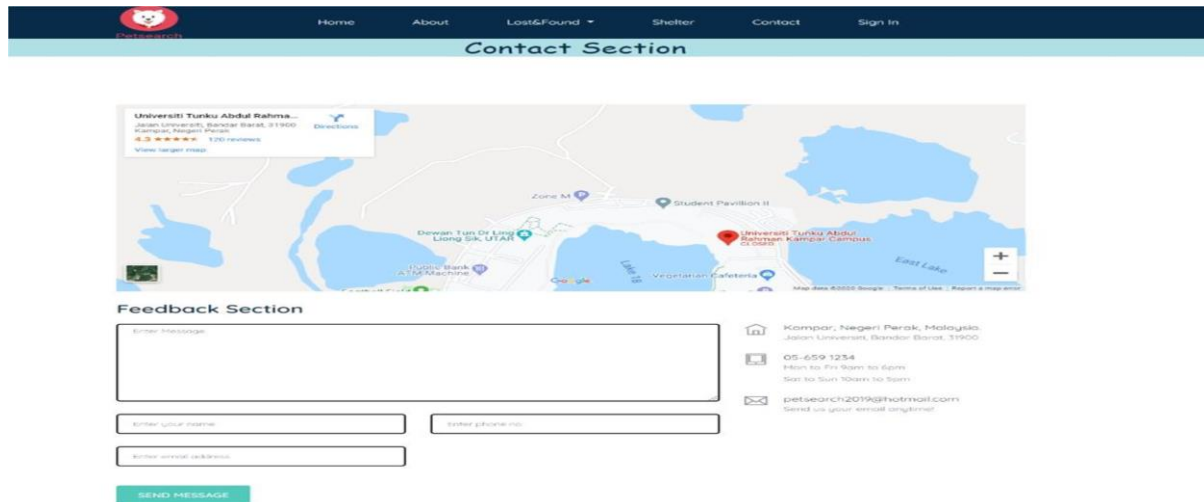


Figure 5.12 Contact of Pet-Search

Users are able to send their feedback in the contact section of PetSearch by filling up the feedback form. Besides, the contact information and a Google map are provided for users in case they have issues to contact with PetSearch.

5.13 Live Chat function

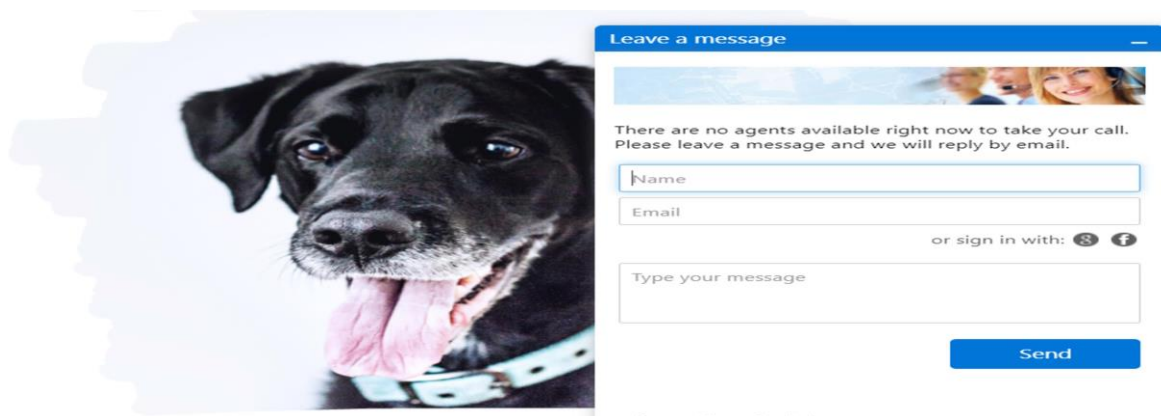


Figure 5.13 Live Chat of Pet-Search

A live chat function is provided in the bottom right corner of every Pet-Search interfaces. This is a function which allows users to live chat with the administrator. For example, if users have some issues or question during some features, he/she can direct live chatting with admin for further purpose.

5.14 Administrator system

5.14.1 Login System

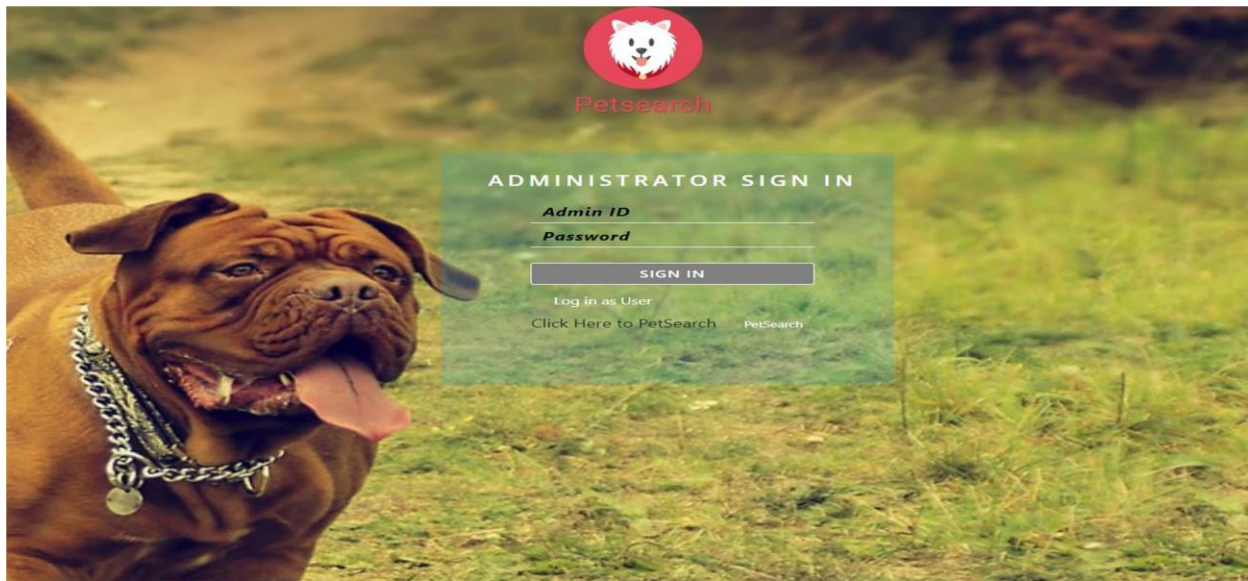


Figure 5.14 Admin Login Page of Pet-Search

5.14.2 Homepage of dashboard

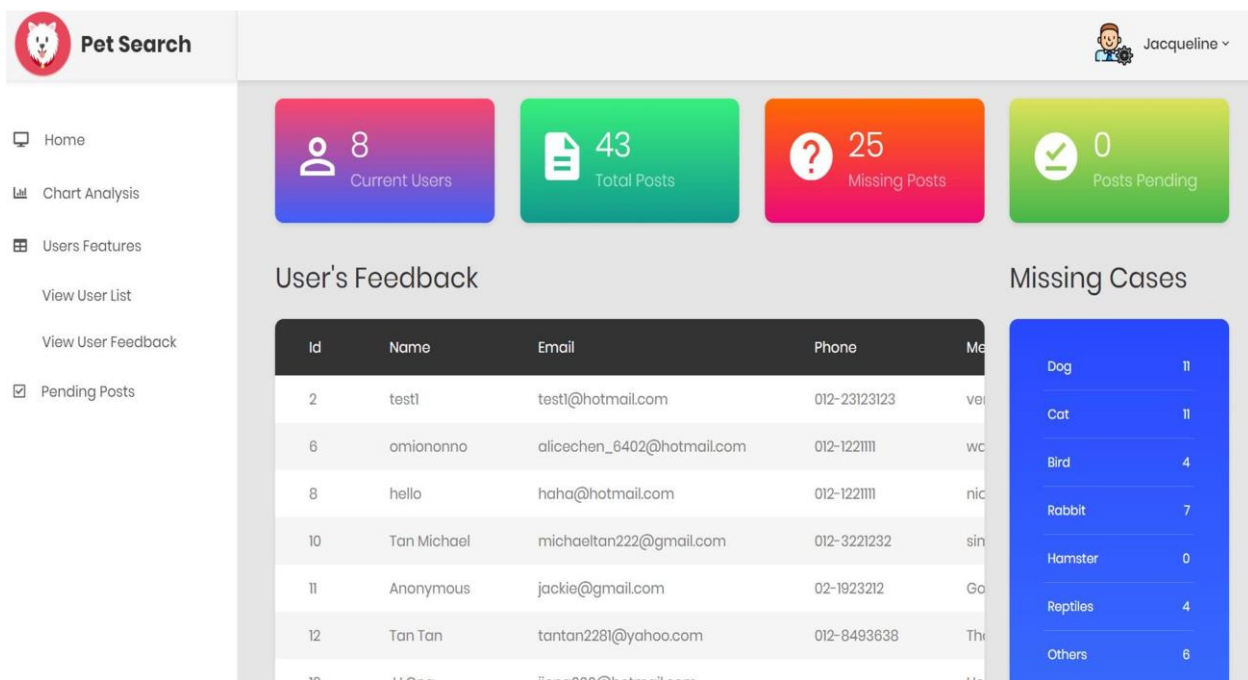
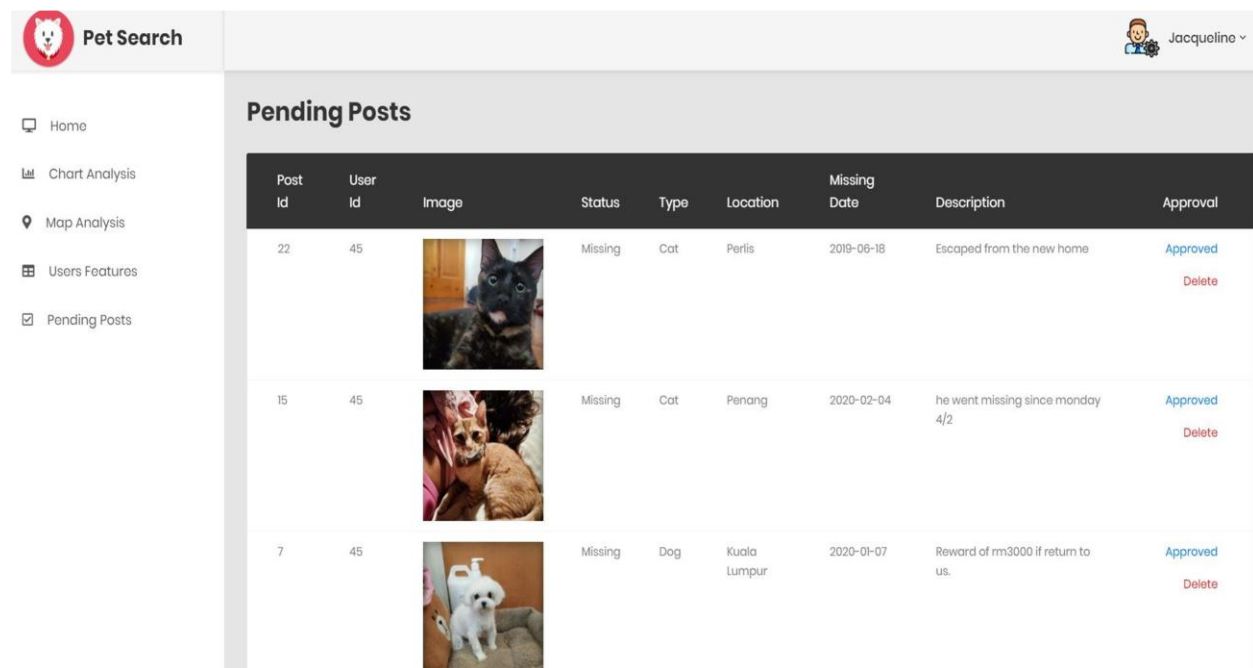


Figure 5.14 Homepage of Dashboard

After login to admin dashboard, admin is able to perform some functions regarding of users, posts and feedbacks. There is a navigation bar on the right side which links to those features. At the top of the homepage of dashboard, there are four small boxes show about the number of current users, total posts, current missing pet's posts and also pending posts. This design is to enhance the efficiency and make ease for admin. The overall design for admin dashboard is made simple and nice arrangement as it make easier for admin to understand.

5.14.3 Pending Posts

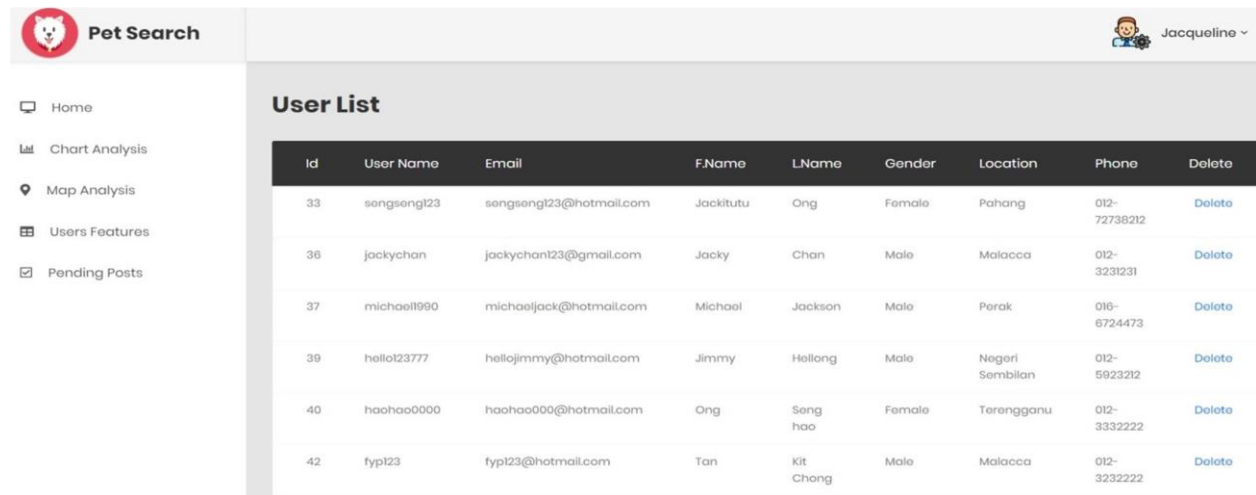


Post Id	User Id	Image	Status	Type	Location	Missing Date	Description	Approval
22	45		Missing	Cat	Perlis	2019-06-18	Escaped from the new home	Approved Delete
15	45		Missing	Cat	Penang	2020-02-04	he went missing since monday 4/2	Approved Delete
7	45		Missing	Dog	Kuala Lumpur	2020-01-07	Reward of rm3000 if return to us.	Approved Delete

Figure 5.15 Pending posts

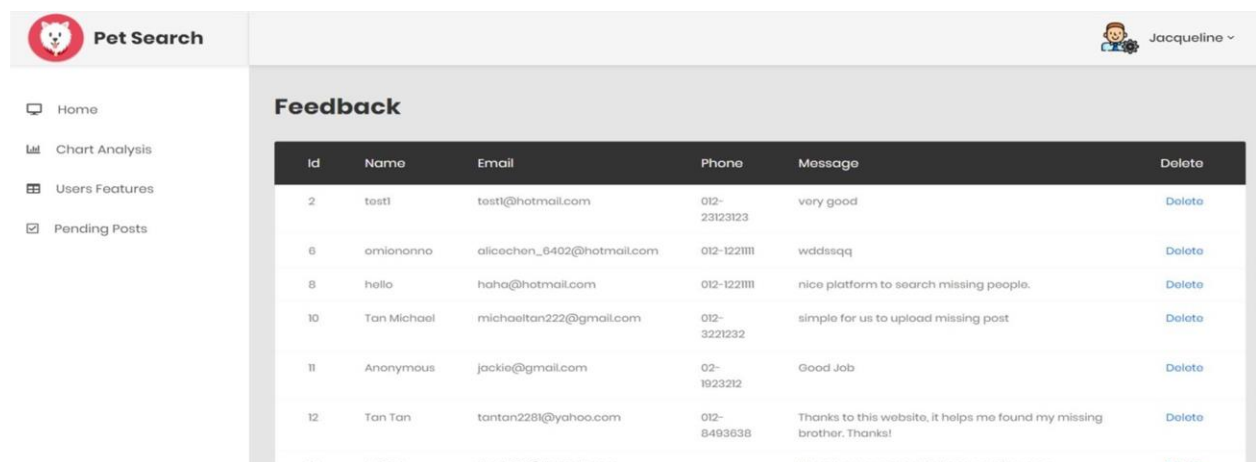
After users upload the missing or wandering posts, the posts will be hold in the server and database first before showing in PetSearch. Admin has the job to approve or reject the pending posts uploaded by users. This is to ensure there is no harassment or joking around the posts upload to website in order to protect the image of PetSearch. The details are shown in the table includes the user id who upload the post, pet image, status, pet type, location, missing date and description. In the left side of each pending posts there are two buttons to allow admin make the decision of either approve or reject the posts. If the pending post has been approved by admin, it will display on PetSearch website.

5.14.4 User List and Feedback List



Id	User Name	Email	FName	LName	Gender	Location	Phone	Delete
33	sengsengl23	sengsengl23@hotmail.com	Jackitutu	Ong	Female	Pahang	012-72738212	Delete
36	jackychan	jackychan123@gmail.com	Jacky	Chan	Male	Malacca	012-3231231	Delete
37	michael1990	michaeljack@hotmail.com	Michael	Jackson	Male	Perak	016-6724473	Delete
39	hellot23777	hellojimmy@hotmail.com	Jimmy	Hellong	Male	Negeri Sembilan	012-5923212	Delete
40	haohao0000	haohao000@hotmail.com	Ong	Seng hao	Female	Terengganu	012-3332222	Delete
42	fyp123	fyp123@hotmail.com	Tan	Kit Chong	Male	Malacca	012-3232222	Delete

Figure 5.16 View User list function of Pet-Search



Id	Name	Email	Phone	Message	Delete
2	test1	test1@hotmail.com	012-23123123	very good	Delete
6	omiononno	alicechen_6402@hotmail.com	012-1221111	wddssqq	Delete
8	hello	haha@hotmail.com	012-1221111	nice platform to search missing people.	Delete
10	Tan Michael	michaeltan222@gmail.com	012-3221232	simple for us to upload missing post	Delete
11	Anonymous	jackie@gmail.com	02-1923212	Good Job	Delete
12	Tan Tan	tantan2281@yahoo.com	012-8493638	Thanks to this website, it helps me found my missing brother. Thanks!	Delete

Figure 5.17 Feedback list function of Pet-Search

The figures above show about user list and feedback list. For user list, it displays the current user's data according in a table. Noted that there is no password is display in this list to protect the secure of users. If the user has uploaded harassment posts, admin has the right to reject the post and also delete the user by clicking the delete button in the user's column. Besides, users are able to send their feedback to PetSearch and those feedbacks are read by admin. Admin maintains the right to delete the feedback if harassment message was found.

5.14.5 Analysis and Statistics

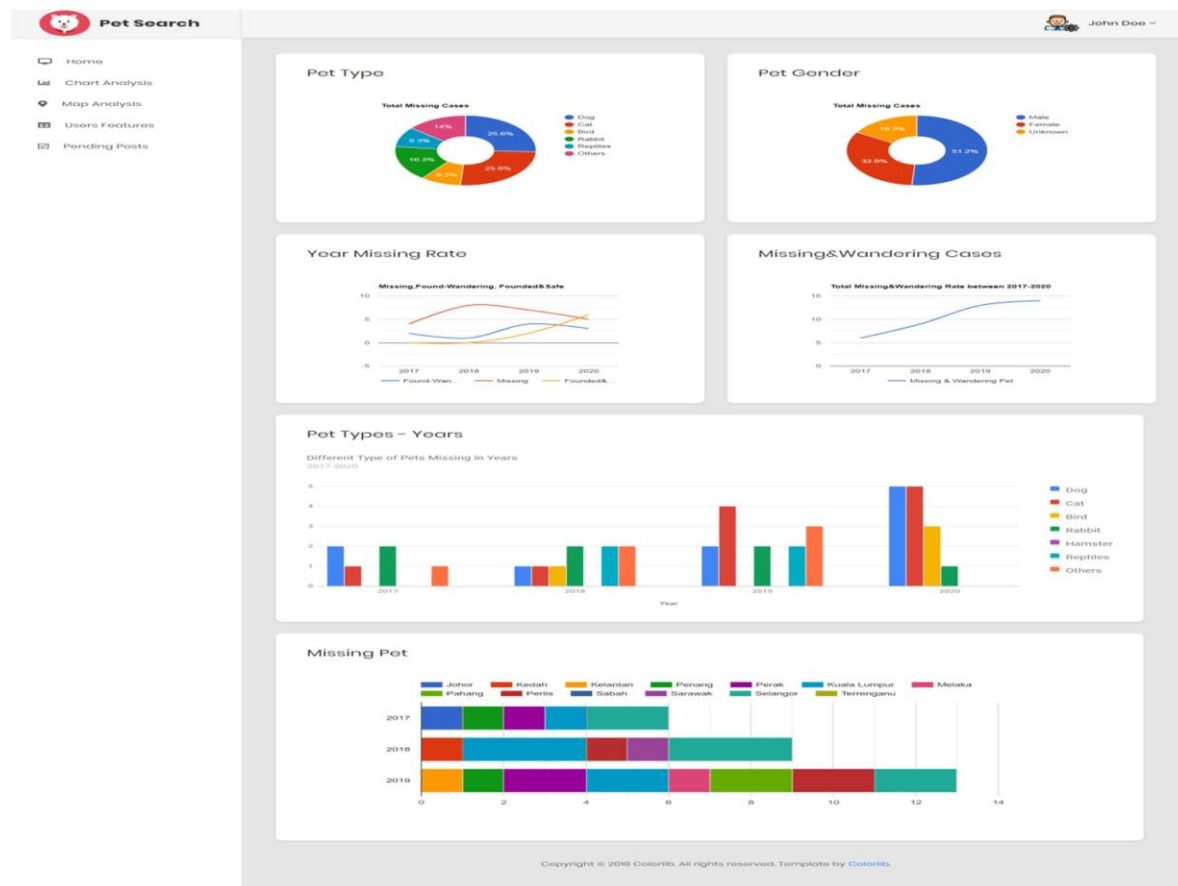


Figure 5.18 Chart Analysis of Pet-Search

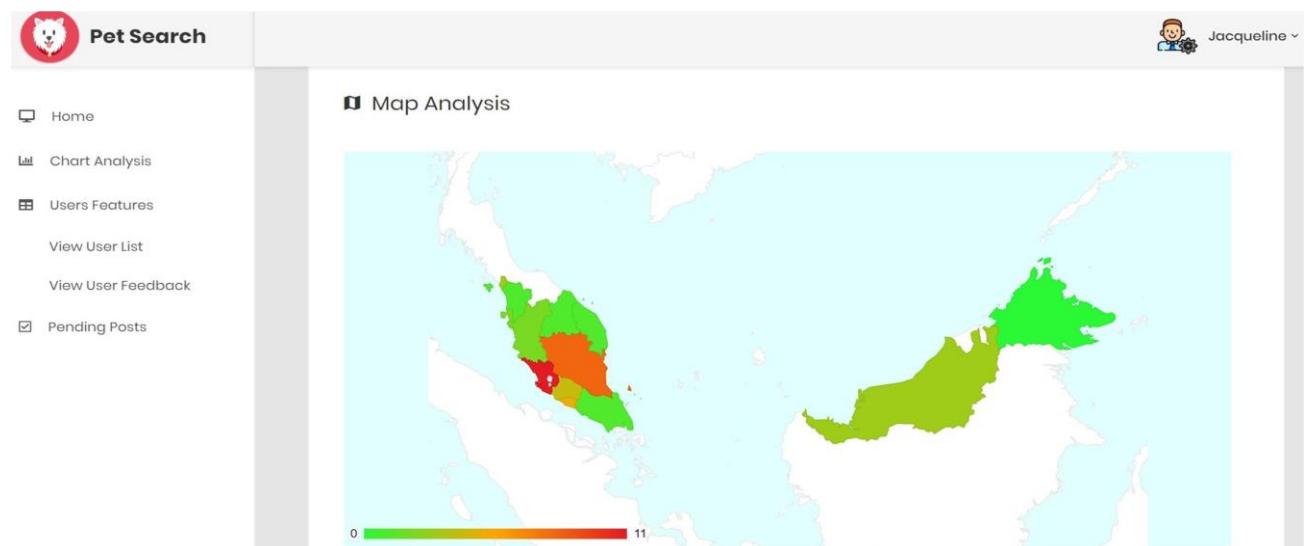


Figure 5.19 Map Analysis of Pet-Search

The data of the post uploaded has been converting into charts and graphs in order to research for the statistics. Admin and users are able to view these graphs. The main purpose of generating this feature is to increase the awareness of people about the missing and wandering pet problem in Malaysia. There are pie charts, line graphs, bar chart and stacked column chart to present the statistics of missing and wandering pet according to different attributes. Besides, a map analysis is generated to make easier understanding by colouring the most cases happened state in red colour. In the bottom left of the map, there is a bar by showing the least and most number of cases happened in states of Malaysia. For every chart, users are able to check the total cases by hover the area in those graphs.

5.15 Chapter Summary

In this chapter, the implementation and features of PetSearch website have been described in details to understand the functions of them. Not only for that, those figures about the designation of PetSearch show consistency in designs and colour. There are two index for PetSearch, user index and admin dashboard. Administrator system includes all the features needed to maintain this website. For users, this PetSearch website provided every feature stated in Chapter 1 and reach the requirements.

Chapter 6: Conclusion

6.1 Conclusion and Discussion

Missing pets cases are increasing gradually and found rates was not high nowadays. One of the main reasons is due to less effective methods for user to search their lost pets and lack of information, analysis and awareness about missing pets. Therefore, the concern of this project is to solve these problems stated above.

The final product of this project is an online pet finder website which named Pet-Search. Pet-Search is an online platform that allows users to posting lost and found pets, searching for animal shelters information and so on. The main objective of this project is to develop and designed a user friendly, effective and efficiency pet finder website for users to reduce human resources needed, time and cost. Other than that, providing animal shelter function and spreading awareness of users about missing pet issues can make huge impact for users and animals.

After literature review in Chapter 2, some basic features of being an online pet finder website have been compared between different familiar websites. Strength and limitation of each of the websites have been stated and referenced. The strengths and limitations of these websites will be focused in order to improve and enhance effective in this project.

Furthermore, the methodology used in this project has been described in phase of development which included planning, analysis, implementation, testing and documentation. Besides that, the design of this website development reached the minimalist, simple and colourful design. Therefore, elderly pet owners are able to use this Pet-Search website when facing pet lost issues with the easy access of the website.

In a nutshell, the main focus of this project is to develop an online pet finder website to serves both animal and owners by helping them find their beloved pets or home. As losing a pet might leaving significant voids in someone life, this project will make impacts for the missing pet issues and also the owners by providing such effective and free pet finder website.

6.2 Novelties and Contribution

One of the novelties and contribution of this project is to build an effective and efficiency platform for pet owners to find their lost and wandering pets in Malaysia. This PetSearch website is an online platform which allows them to upload missing or wandering posts onto it. As internet is a huge platform nowadays, the effectiveness of the missing posters in PetSearch are able to spread in a shorten time. Besides, most of the people will send wandering pets outside to the nearby animal shelters. Therefore the information and contact way of animal shelters nearby the area are very important as pet owners can check with them for their missing pets. So, an animal shelter feature has been created in PetSearch to make ease or pet owners in finding their lost pets. One of the contributions of this project is to increase the awareness of public about missing and wandering cases in order to signal them about this serious issues currently happening in Malaysia. According to research, the missing rate has increased year by year in Malaysia. The PetSearch website conducts analysis and statistics present by dynamic graph and charts on the platform. It includes bar chart, pie chart, line graph and also column chart. Those statistics are presented in simple format to make users understanding easier. However, there is only one pet finder website currently in Malaysia. Thus, PetSearch is developed to reduce the missing and wandering rate in Malaysia.

6.3 Future Work

The PetSearch website still has improvements and enhancement able to make in the future. One of the improvements is hosting this website on the cloud server and putting advertisement on Google to let Malaysian access the website. By doing this, PetSearch is able to truly distribute to public and being acknowledge by people. Besides, collaboration with animal shelters in Malaysia is one of the biggest ways in improving PetSearch. When the users upload a missing or wandering post in PetSearch, the system is able to contact the nearby animal shelters about the missing posts. This feature will enhance the effectiveness and reduce the time required to find back the lost pets. Lastly, a microchip detector system in PetSearch to allow users search for their lost pets with the ID tag registered.

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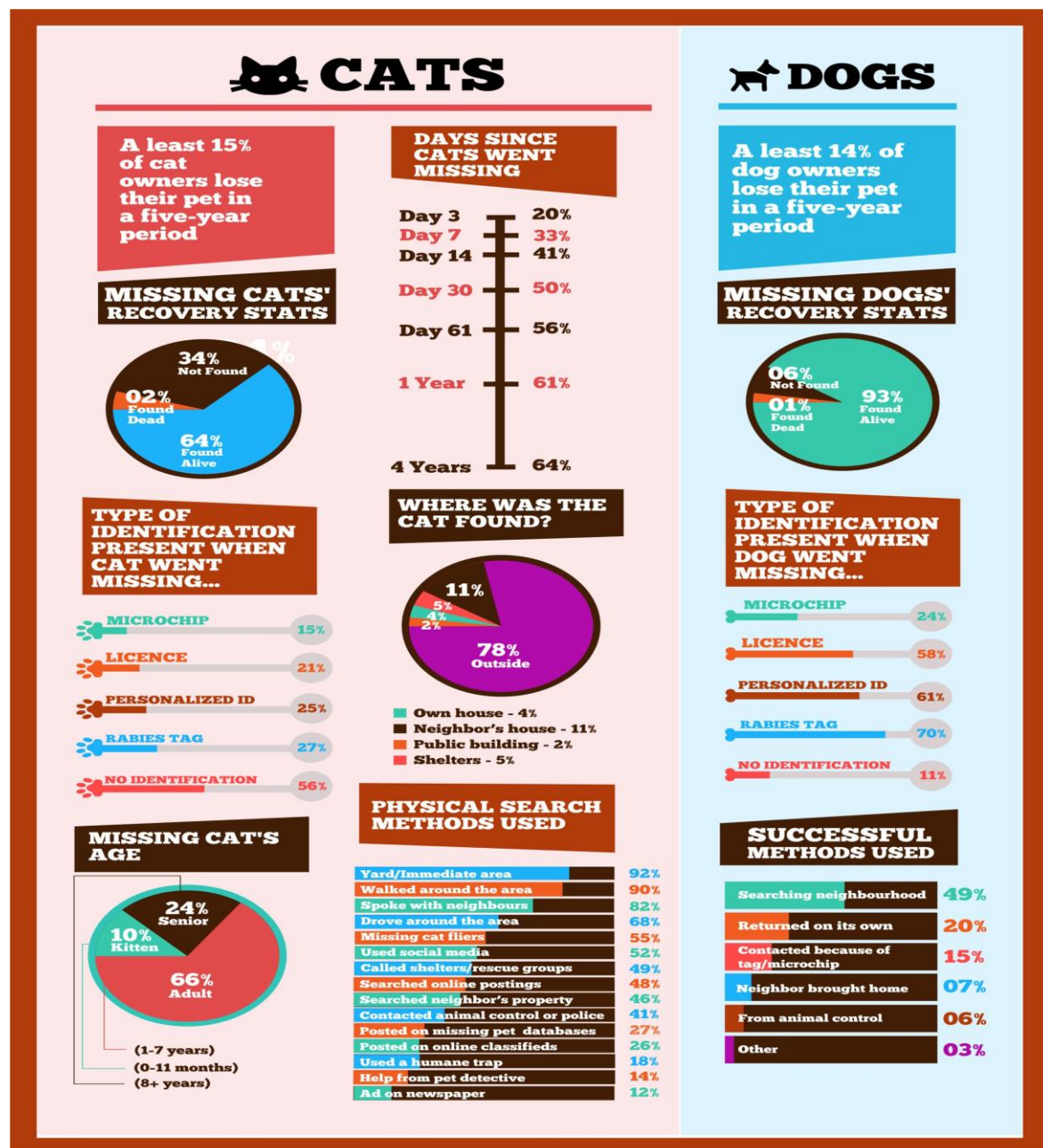
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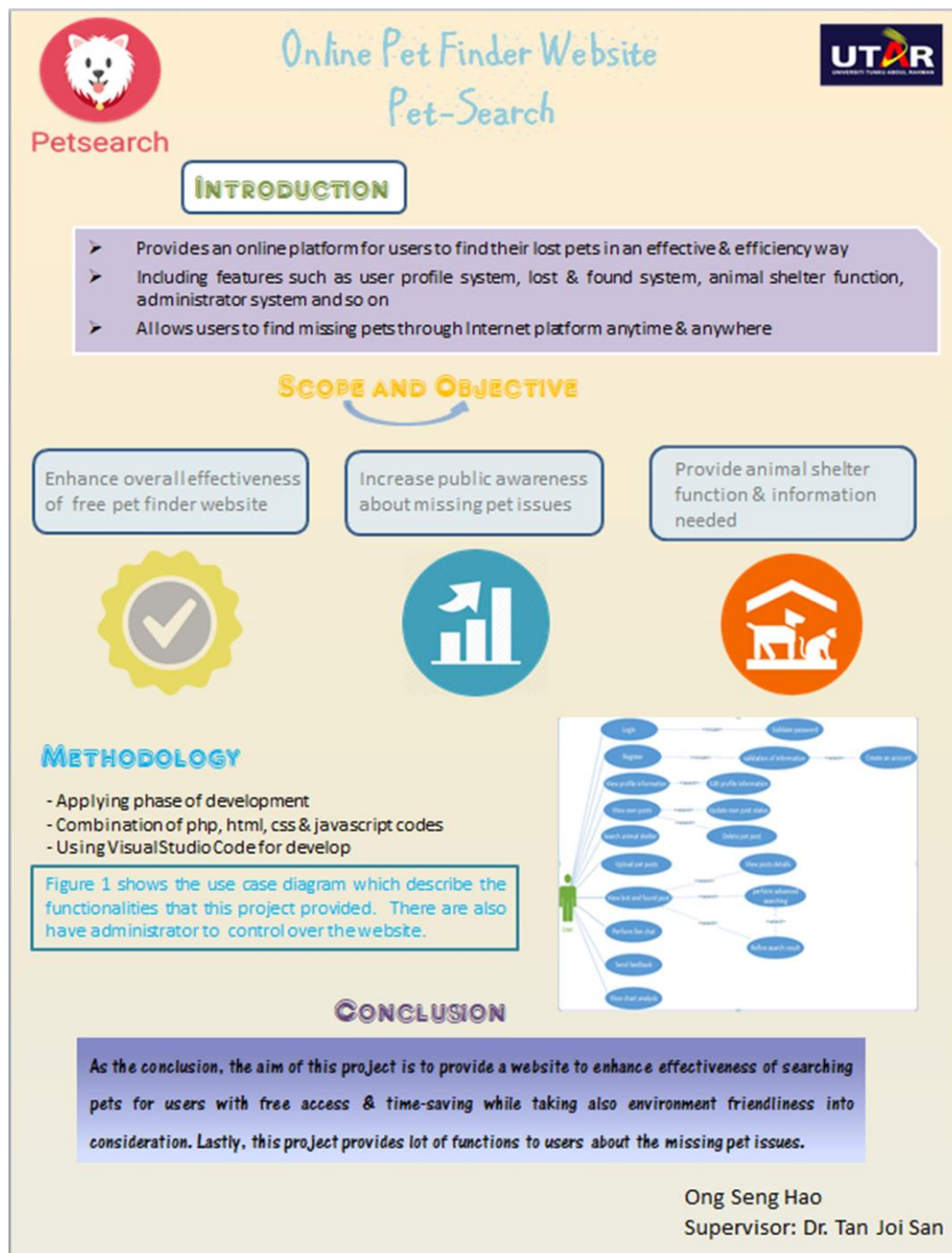
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