Platform for Animal Adoption and Surrendering

by

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Universiti Teknolgi PETRONAS
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CERTIFICATION OF APPROVAL

Development of an Animal Adoption/Surrendering Platform

By

Hani Artika Ahmad

A project dissertation submitted to the

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BACHELOR OF TECHNOLOGY (Hons)

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Approved:

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BANDAR SERI ISKANDAR, PERAK

May 2015

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specifies in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

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  HANI ARTIKA AHMAD

ABSTRACT

As a partial fulfilment of Final Year Project, the main aim of this project is to develop an accurate, reliable and efficient platform for animal adoption/surrendering. This platform is based on software and database to solve the problem occurs for public who want to adopt or surrender and animal. The current product of animal adoption/surrendering platform offers minimal, nonflexible and non-updated resources platform. With an awareness of people regarding stray animal being abuse, this kind of animal platform has gain interest. The implementation is achieved using a combination of hardware and software development. A Sony laptop has been used as the hardware devices to create and modified the software. The software being used is Bootstrap as the developing platform and the domain is bought from ServerFreak to store all the platform information.

ACKNOWLEDGEMENTS

I hereby would like to grab this opportunity to express my deepest gratitude and gratefulness firstly to God, The Almighty for giving me a chance to acquire new knowledge and with His will, this project was successfully completed. I would like to express my appreciation to Universiti Teknologi PETRONAS for providing the facilities for me to implement the project. My special thanks and appreciation to my supervisor, Dr. Low Tan Jung for all the guidance, advice and commitment in assisting me throughout this project. His suggestions for this project are very valuable. A warmness thanks to my fellow friends for all the help, support and opinion given in completing this project. Last but not least I would like to thank my beloved family members for giving me moral supports and all parties that involved in completing this project. This project would not have been possible to finish without any help of many people who had involved.

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INTRODUCTION

1.1   Background Of Study

According to Wikipedia, animal are multicellular, eukaryotic organisms of the kingdom Animalia. Some of them undergo metamorphosis process and eventually becomes fixed as they develop. They can move spontaneously and independently as they are motile. Some of animal such as cats, dogs, hamsters, ferrets, sugar gliders are made as pets by human. This pets are known with tame, loyal and spoiled character. Pets are also known as the best medicine to relief human stress and depression. However, not all pets are lucky to have great and good master. According to pet-abuse.com, there are 132 cases of animal abuse were reported for 2013 in the United States. There are several type of animal abuse recorded such as beating, bestiality, burning, choking, fighting hanging and others.

According to Animal Act 1953 in part IV – Prevention of Cruelty to Animals, Section 44 (1) stated that any person who cruelly beats, kicks, ill-treats, overrides, overloads, tortures, infuriates or terrifies any animal, he or she shall be guilty of an offence of cruelty and shall be liable to a fine of two hundred Ringgit or to imprisonment for a term of six months or to both. This law clearly showed that how animal are important to be treated fair enough just like human being. The existence of this act helps to prevent animal abuse among public community and it also to ensure the safety of animals.

Up till today, many activities and campaign has been organized not only by government but also NGOs around Malaysia in order to create the awareness among human being. For example they have been organized campaign in school to train these young generation on how to handle pets correctly. They organized activities related to animal awareness to public and they also have created several technique online to follows the current technology trends.

NGOs has proposed many technique in order to prevent stray animal to creep without shelter. One of the technique proposed is creating an online platform to connect people with NGOs if they want to surrender stray animal or adopting pets. However this technique still produce poor result when public have no information about it. Hence, we believe that the reason for the above is the choice of technique need to be built so that it suit the context in which the learners are in rather than be generalized to all situation, and people will be more aware of the platform which can connect them to the animal shelters. As such, this project will develop a platform for NGOs and public user which provides adaptable user-friendliness features according to the content of the context surrounding the learners. By doing this, we hypothesize that this online platform will be the bridge for NGOs and all animal lovers out there.

Accessibility, user-friendliness and context might be defined differently by different people. In this project, accessible would mean that the platform can be access on various search engine such as Google, Firefox, Internet Explorer (IE) and Safari. As for user-friendliness, the definition provided by Webopedia it said that user friendly refers to anything that makes it easier for novices to use. In this platform, there are guidelines for new user implemented to assist them on how to use the platform. Context of the platform will be in English language to make it more user-friendly.

1.2 Problem Statement

As the number of animal abuse increase, the platform for animal adoption has been developed worldwide to overcome this situation. Although the platform has been produced, the efficiency and adaptability of the current system still does not meet certain specific criteria and there are some field which can be improvised further. For instant, in Ipoh bound there are only 4 animal shelter exist and the founder of the stray animal needs to bring them to the shelter. This is quite difficult because not all stray animals are tame. If it's not wild probably they are scared of human. If the platform for animal adoption is created, the process for sheltering stray animal would be more organized. So, the best option is to create an animal adoption platform where people can request when and where to send over the stray animal. Beside stray animal,

they can also surrender their pets if they have difficulties in managing them. Moreover, besides surrendering animal, they can also adopt animal from the listed animal shelters. This will help to keep the environment clean without stray and unmanageable animals.

1.3 Objective & Scope of Study

Platform for animal rescue has been widely used in this country or other countries. Its offer significant benefits for individuals, Non-Government Organizations, and also government but there is still a problem need to be solved in order to propose the better system. Therefore a platform being created for animal adoption and surrender is proposed to achieve these objectives:

a) To develop a platform for animal adoption and surrendering.
b) To develop a user-friendly animal adoption platform.

The scope of study are:

a) To study the current situation of animal adoption and surrender.
b) To study the latest web design technology for animal adoption.

1.4 Project relevancy

Based on the research, this project acquire the platform and the knowledge of animal field of study especially in the area of animal adoption and surrender as this project focus on developing a platform for abandon animal and man's pets. Besides that, some knowledge from others like statistic of abandon animal and cases of animal abuse also are necessary in this project. Then in term of the platform, this product will be very helpful and expected to be highly demanded in the future. This platform will involve lots of coding and well organized application to enhance the usage of the platform itself.

1.5 Feasibility of the Project Within the Scope and Time Frame

The project will start by collecting materials such as books, journals and technical papers specifically on animal adoption, animal abuse, and architecture and functionality in content management. Research will be done

from time to time for getting a better understanding on this issue. This project will then focuses on developing and conducting simulating the programming code and data to test the efficiency of the idea and proceed with the hardware design and assembly. Some improvement will be done if needed in order to produce the best and successful designed product.

CHAPTER 2

LITERATURE REVIEW

2.1 Problem Faced related to stray and un-vaccine animal

Stray animal is a term used for free roaming animal in public area such as housing areas or park and usually this animal not belong to anyone. Stray animal can be problem because they may be carrying disease that has the possibility to pass to humans and other animals. One example of the disease is Rabies. This stray animal can also cause road accident, damage property and pollute the environment. As discuss about stray animal, there are report stated that stray animal are due to three main reasons. The first reason is irresponsible animal ownership. Some animal owner abandon their pets in the street when they feel they no longer need to kept the pets and some of them are allowing their animal to roam unsupervised which later the animal become part of the stray populations.

Animal which has not been given vaccine tends to get diseases such as rabies, canine parvovirus and canine distemper, feline leukemia, or equine tetanus. These diseases are very dangerous especially the rabies. Rabies is a viral disease that can affects brain and spinal cord of all mammals, for example cats, dogs and humans. Pets such as cats and dogs have the highest risk to affect by this disease if they are exposed to the wild animal such raccoons, foxes or skunks. Rabies is most often transmitted through a bite from an infected animal. The most important interventions in disease prevention is vaccination. Vaccination helps animal welfare to protect their health. Not only that, it can also be used during disease outbreak as an alternative to stamping out and avoiding the welfare problem. Animal welfare can be improve by protection animal health through animal vaccination. It is clear that vaccination has tremendous advantage toward animal welfare.

2.2 Animal Abuse

There are 2 categories of animal cruelty or abuse which is neglects and intentional cruelty. Intentional cruelty involved physical harm or injury to the animals. Most of cases being herd were beating, burned, poisoned and stabbed to death. Some of cruelty result of people using animals as tools for commercial profit, such as cock fighting, illegal slaughterhouses and puppy mills. Second categories is neglects. Neglects in other word is ignore or simple don't care. Example of neglects toward animal including starving, dehydration, shelter provided is not sufficient and fail to seek veterinary care when animal needs medical attention. Beside that collar left to grow into an animal's skin is one of the act of neglects as the owner did not seem to care about their animal growth.

More than two decades, research reveal that immoral act toward animals can lead to brutality toward humans. With rising of professional study of the causes of animal abuse, professional and individuals have a greater understanding of how violence toward animal begins and how to combat it. There are several theories behind the act of animal abuse. One of the theories is the behavioural or psychotic disturbances which often relate to human unable to control their emotion such as empathy and anger thus lead to violent behaviour. Next is the cycle of violent which is said that the children who come from problematic family tend to release their stress toward animal. This usually happen to adolescence and teenagers. Third and last theories is because of the culture, religion and media. This become one of the theory because various religion and culture beliefs can directly influence what is considered acceptable treatment of animals. For example cock-fighting is significantly influenced by culture and tradition in Malaysia.

2.3 Enacted Law Regarding Animal

There are many Law enacted regarding animals and its safety. There are Cruelty to Animal Act 1876, Animal Act 1953, Animal Welfare Act and many more. Cruelty to Animal Act 1876 is the law passed by the parliament of United Kingdom which they set the limit on the practice of and instituted a licensing system for animal experimentation. This law however is being amend 100 years later which is 1976

stated that if an animals which going thru an experiment must be anesthetised before they begin in order to reduce pain and not to torture the animal itself.

According to Animal Act 1953, there are total eight (8) parts of the law which covered about animal. The most 3 important point to be highlighted is the Import and export of animal and birds, Prevention of the spread of disease and the prevention of cruelty toward animal. The first point explain the transaction process of animal between two or more countries which the owner need to have licence of exporting the animals. In this point also explain that the arrival of animal need to be reported to the Port Officer so that they can granted permit for the landing if the animal is examining to be healthy. Not only animal arriving need to examine, the animal which will be exported are also required to be examine. Next point is about prevention of the spread of disease. To prevent the disease to be spreading, the owner need to disinfection their animal and run an examination toward their animal so that we know their health status. They can usually send their animal to the veterinary to do check up on their animal or they will have to get a special licences to process culture or vaccine. They also need special permit if they wish to own a rare species of animal. If the exporter or importer fails to comply with this process, he or she shall be fined Rm5000 or prison for 2 years. Last point is about Prevention of cruelty to animal. If human are found to violated animal with acts such as kicks, ill-treats, overrides, torture or terrifies any animal shall be guilty of an offence of cruelty and shall be liable to a fine of RM2000 or imprisonment for six (6) months or both. Animals are also not to be kept in captivity for sale, export or exhibition without licences. There also highlighted that the informer of animal abuse or cruelty shall be awarded.

Next act is Animal Welfare Act. Animal Welfare Act was the first federal law in the United State regulating animal in research. This act applies to facilitate that breed animals for commercials sales, use animal in research, transport animal commercially or publicly exhibit animals. Animal Welfare Act or also known AWA covers petting animal such as cats, dogs, guinea pigs, hamsters, rabbit and any warm-blood animals. This law introduced a duty of care on people to ensure the needs of

any animal for which they are responsible. AWA also stated that it is required for the facilities to licensed and registered as can ease them to do inspection. Failures to comply with AWA standard will led to fines and confiscation of animal.

2.4 Existing Website Regarding Animal Adoption/Surrender

A lot of initiative taken in order to ensure the safety of stray animal from being targeted for animal abuse because of the absence of human as their owner. Not only that, animal which have owner had the potential to become the victim of animal abuse or even worst animal trafficking.

The government in cooperate with Non-Government Organization (NGO) has launch numbers of campaign in order to make public realise that how it is important to take care of their own pets and not to abuse stray animal as they are innocent. Many of the campaign highlighted that irresponsible owner who left their pets on public area such as at the market or inside the drain with though that the animal can survive on its own should be punish and fines. Other initiative beside campaign is by using internet as the medium of communication between the government and NGOs with public to spread the news or service provided regarding animal and pets cares.

Online Website	Description
Petfinder.my	• PetFinder.my is a comprehensive website which will incorporate a lot of tools for the pet-loving community of Malaysia to further the plight of thousands of animals. • Petfinder.my address 3 important missions : 1) To facilitate Better communication The communication here is between the organizations with the potential adopter. By having profile of animals it easy the process of adoption. 2) Economy of Scale Instead of having all animal rescuers putting up individual ads on the newspaper.petFinder.my can now promote the ads itself in their website. 3) Educating the Public PetFinder.my envision a cohesive network of rescuers, fosterers and adopters effectively cooperating to provide loving care and shelter for neglected animal. PetFinder.my also provide assistance and education to the public on how to handle or manage pets responsibly.
Adoptapet.com	• Formerly known as 1-800-Save-A-Pet.com. • Is the North America's largest non-profit pet adoption website. • Provide useful and informative information on the human/companion animal relationship to help to keep pets healthy and permanently in their loving homes.

	• Medium of communication such as blog, YouTube channels and article on their website. • Helps other animal shelters, humane societies or pet rescue group to advertise their homeless animals to public in order to find suitable adopter.
Royal Society for the Prevention of Cruelty to Animal (RSPCA)	• Charity operating in England and Wales which promotes animal welfare • Been the oldest and largest animal welfare organisation in the world and one of the largest charity in United Kingdom. • Have own centres, hospitals in order to take care of animal. • Vision: To work for a world in which all humans respect and live in harmony with all other members of the animal kingdom. • Animal rescued are being treated, rehabilitated and rehomed or released wherever possible.
Blue Cross	• Vision: Every pet will enjoy a healthy life in a happy home • Mission: We find happy homes for abandoned or unwanted pets, and we keep pets healthy by promoting welfare and providing treatment • The first animal welfare charity to employ an animal behaviourist to help owners with problem pets. • What Blue Cross do: 1) Rehome Find home for unwanted pets and helps each pets find the right person for them. 2) Veterinary

	Own four animal hospitals to treat sick and injured pets when their owner could not afford the fees. 3) Behaviour Helps pets that arrive at Blue Cross with behavioural issues and offer ongoing support to anyone who rehome an animal from Blue Cross 4) Education Help to informed new owner what dos and don'ts for their new pets. Blue Cross also promote animal welfare by giving talk at school and youth groups. 5) Pet Bereavement Helps pet's owner who are struggling to cope with the loss of a pet.

Table 1.0 List of existing Website regarding Animal Adoption and Rescue

2.5 Short Coming of Existing Website

The above website has the most useful usage in term of adopting animal, rehome the animal from their centre and help in term to promote animal for adoption. But the short coming off all those existing website listed above is that they did not provide any link or way on how to surrender stray animal or pets. As being discuss above, there are three main reason which are causing animal to be stray, one of them is the owner abandon their pets when they feel no longer need to kept the pets. So by providing this surrendering option on the webpage, there will be less stray animal as the owner can now find the way how and where to surrender their pets instead of leaving them at the alley or public places.

CHAPTER 3

METHODOLOGY/PROJECT WORK

This chapter will discuss on the following items:

- Development Methodology
- Research Methodology
- System Architecture
- Development Tools
- Use Case Diagram
- Flow Chart
- Gantt Chart
- Project Milestones

3.1 Development Methodology

In completion of this project, the main methodology used is the Rapid Application Development method (RAD). This methodology approaches software development in order to put less emphasis on planning tasks and more in development. Different from waterfall model, RAD approaches emphasize the necessity of adjusting requirements in reaction to knowledge gained ad project progresses. It also emphasize a flexible process that can adapt as the project evolves rather than defining specification rigorously and plans correctly from start. RAD is said to be suited in developing software that is driven by user interface requirements.
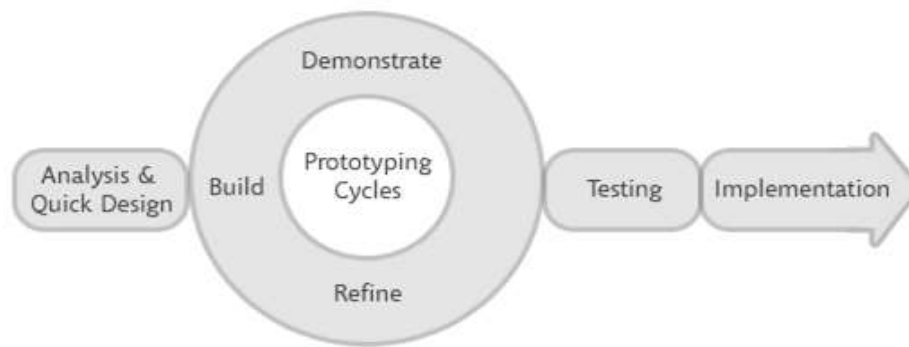
Figure 1.0   Rapid Application Development (RAD)

3.1.1 Project Activity

This Final Year Project used four steps in implementing RAD method into the project. The process involved are Analysis and Quick Design, Prototyping Cycles which include – Built, Demonstrate and Refine, Testing, Implementation.

i.   Analysis and Quick Design

Analysis and quick design is the phase whereby to identify all relevant information required in the project such as scope and requirement. Analysis is done by gathering information from public and animal association which have more experience in studied field. Besides, author also focus on project requirement and resources, literature studies and any related information which she can used in this project. Most of the material is collected from journal, research paper from Information Resources Centre (IRC) and via internet. To get clearer view, author also create a quick design or the prototype of the project on how the platform will look like.

ii.   Prototype Cycle which include – Built, Demonstrate and Refine

At this phase, the author will start to develop a platform according to prototype designed and prior discussion with her supervisor. For platform development, author will use Content Management System (CMS) as the development environment and using extension from external application to extend platform capabilities and functionalities.

iii.   Testing

During this phase, author will be focus on integration of extension modules and plugin on proposed CMS and follows with unit testing on each of the installed components. This phase is carried out based on RAD method in order to check the system and integration consistency and field testing will also be carry out to test every single main functionalities.

iv.   Implementation

Implementation is phase whereby the platform is being release for public in order to test its reliability and functionality. It also to test the user-friendliness of the system by collecting feedbacks from the user. Before being released to public, the platform is first shown to the supervisor in order to get feedback and suggestion if there are any improvement can be done.

3.2 Research Methodology

3.2.1 Survey

To gather information on current issue on animal and animal abuse and platform feasibility, author had conducted an online survey by distributing the survey via online mainly focus on university students as targeted group. SurveyMonkey is being used as a survey tools which is cloud-based "software as a service" (SaaS) survey application. For the animal survey, 74 respondent had respond from 17th March until 27th March where consist of 28 of male respondents and 46 female respondents. Most of the respondent are from university all over Malaysia.

There are 16 total question which being construct in order to identify they demographic information, pets information and their awareness about current issue relating to animal. The survey also aim to test the platform idea viability. Most of the respondent are aware on current issue relating to animal and some of the respondents does not own any pets but still aware about issue on animal abuse, animal trafficking and others. Detailed explanation regarding survey output will be further discussed on the next chapter.
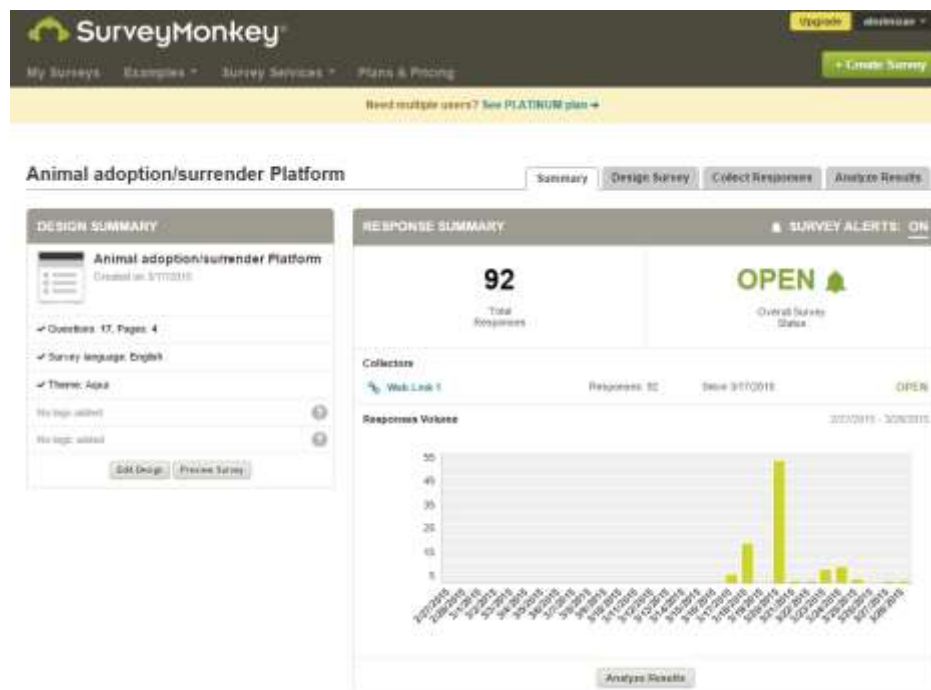
Figure 2.0   Summary of Survey

3.2.2 Interview

To further acquire information from animal association, an interview was conducted on 27th June 2015 with Miss Andria, the owner of Save Our Strays (SOS), a non-government animal association which active in handling animal adoption and surrendering. The meeting was held in their animal shelter located in Pulau Pinang, the author had a chance to look around the animal shelter and they have numerous dogs and cats which need to be treated and neuter before the new owner to adopt.

Figure 3.0 Save Our Strays Animal Shelter

3.3 System Architecture

3.3.1 Framework Development

In order to develop this website, Bootstrap is used as the front end framework. Bootstraps is open source collection of tools for creating website and web applications. The aims of Bootstraps is to ease the development of dynamic websites and web application. Moreover, it also contains HTML and CSS based templates for forms, buttons, navigation, typography and other interface component. Not only that, it also contain JavaScript extension. Bootstraps is easy to use as it compatible with the latest version of Chrome, Firefox, Internet Explorer (IE), Opera and Safari browser.

3.3.2 System Architecture for Animal Adoption platform
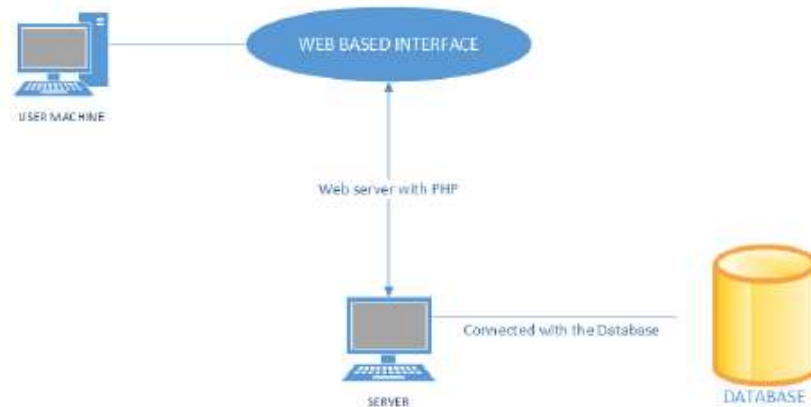
Figure 4.0 System Architecture for Animal Adoption Platform

The system architecture for animal adoption platform consist of several mechanism, that is the user machine itself, the interface of the page that is connected to the server and the application that is embedded in the server whilst connected to the database itself. The user uses their own machine to access into the website. The website itself is connected to a server. The server has function to connect the website to the database. However the database is only accessible for the administrator which is the author. To make less traffic, the server is separated with its database. This also to increase security on the database which can prevent from malicious attacks.

3.3.3 Content Management System

In developing this project, author used Content Management System (CMS) as the main application in building the platform. CMS can be used to publish, edit and modifying content, organize, delete and maintaining from interface. CMS consist of two element which is content management application (CMA) and content delivery application (CDA). CMA element help the author to manage creation, modification and remove content from website without expertise of the person who create the contents or also known as webmaster. While CDA element help to compile information which needed to update to the website. Features of CMS might be different according to the provider. Apart from that CMS offered tools for one-to-one marketing as the ability of a Web site to change the content and advertise to user's specific characteristic.

3.4 Development Tool

3.4.1 Software

Software	Function
Microsoft Excel 2010	Used to create Gantt chart
XAMPP	- PHP - Apache - MySQL - phpMyAdmin
Bootstrap	A sleek, intuitive and powerful mobile first front-end framework for easier web development which contain HTML and CSS based design templates.
Survey Monkey	An online survey tools which is a cloud-based survey application
Balsamiq Mockup 3	Used to develop the first blueprint or prototype of patmenow.com
Creately	Is a diagramming and design software and it is cloud-based diagram tool built on Adobe's flex/flash technologies and provides a visual communication platform for virtual teams

Table 2.0 List of Software

3.4.2 Programming/Scripting Language

HTML	Used to define structure and front end of patmenow page
CSS	To furnish the front-end design and background
JavaScript	Used for web functionality
PHP	Server scripting language for back-end development

Table 3.0 List of Programming/Scripting Language

3.5 Use Case Diagram
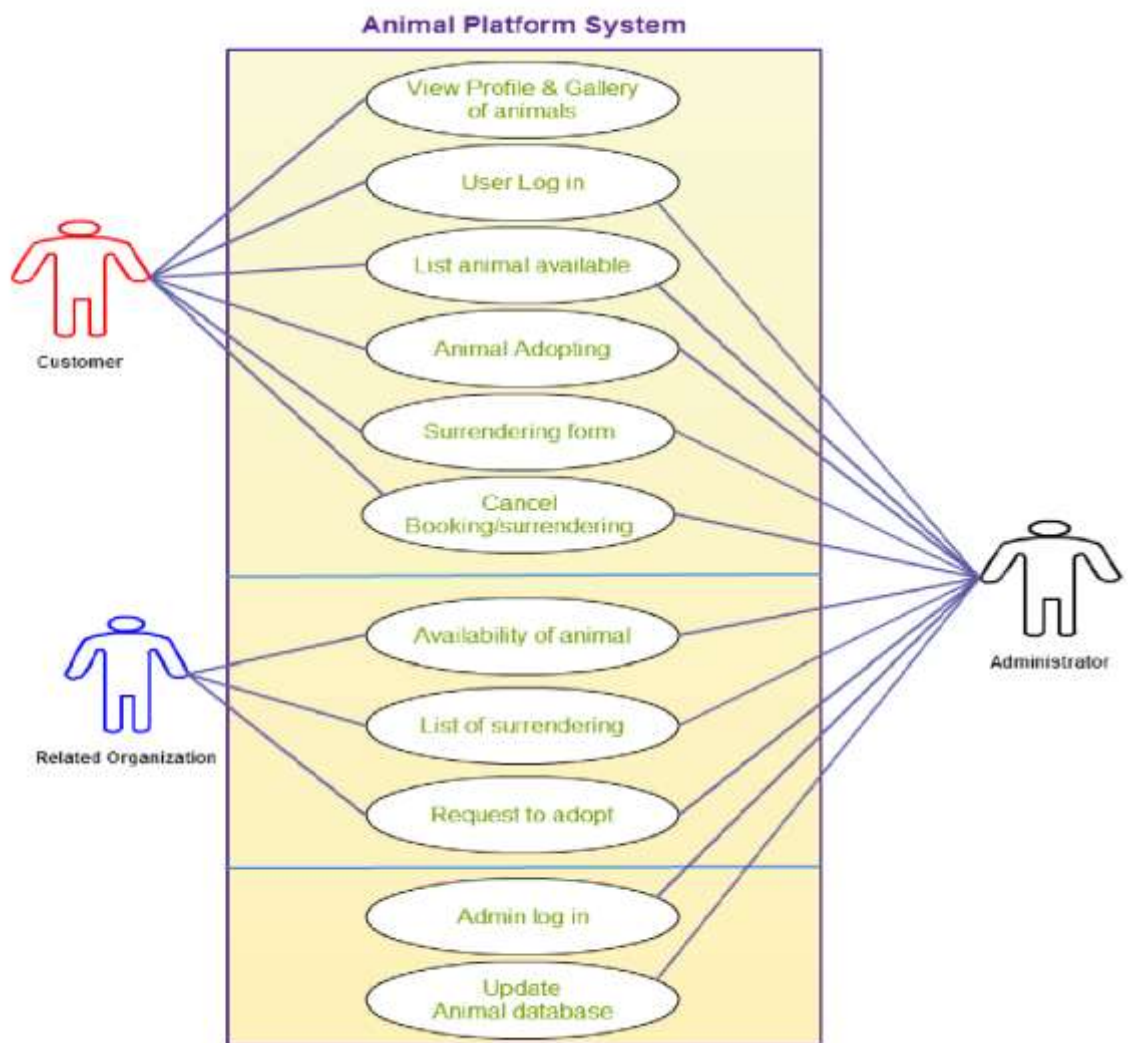
Figure 5.0   Use Case Diagram of Animal Adoption Platform System

According to use case above, admin has the authorization on majority of the option as the admin is the one who create the platform. This include viewing customer log

in information, list of animal available, animal adoption, managing surrendering form and cancel booking. Besides that, admin are also authorized in viewing the availability of animal from organization, list of surrendering and requesting the permission to adopt. Apart from that admin also need to update animal database so that the information on the platform is always updated.

3.6 Flow Chart
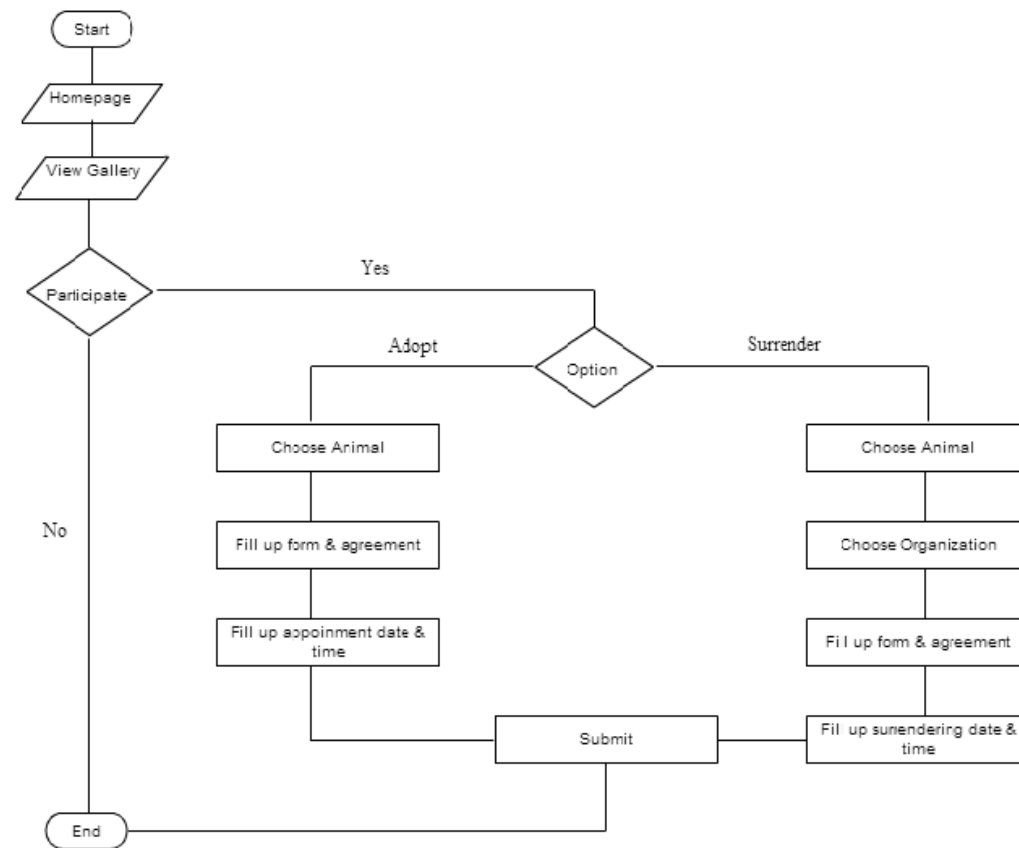
Figure 6.0 System Flow Chart

3.7 Gantt Chart

3.7.1 Final Year Project 1 Gantt Chart

Project Activities	Weeks													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Topic Selection Process	▓	▓	▓											
Study on Selected Topic			▓	▓										
Report					▓	▓	▓	▓	▓	▓	▓			
Submit Extended Proposal (10/3)									▓					
Search and buy domain								▓	▓	▓				
Developing Software system											▓	▓	▓	▓
Submit Interim report											▓			
Proposal Defence Presentation														▓

Table 4.0   Final Year Project 1 Gantt Chart

3.7.2 Final Year Project 2 Gantt Chart

Project Activities	Weeks													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Development & Prototyping	■	■	■	■	■									
System Testing & Monitoring					■	■								
Tabulate result & discussion						■	■							
Implementation							■	■	■					
Documentation					■	■	■	■	■	■	■	■		
Submission of Draft Dissertation										■				
Pre-Sedex & Viva									■					■
Final Dissertation													■	■

Table 5.0   Final Year Project 2 Gantt Chart

3.8 Project Milestone

Milestones	Description	Schedule
M0	Project Submission & Approval	Week 2 – 3
M1	Project Initiation	Week 4
M2	Initial Design & Analysis	Week 5 – 7
M3	Platform initial development	Week 5-22

M4	Interim Report (Phase I)
	
	   i. Introduction
	   ii. Literature Review
		Week 5-9

M5	Information Gathering (Survey)	Week 7

M6	Interim Report (Phase II)
	
	   i. Methodology/Project Work
	   ii. Result and Discussion
	   iii. Conclusion
		Week 8-10

M7	Submission of Interim Report	Week 11
M8	Proposal Defense	Week 13
M9	System Release – Continuous Visibility	Week 14 - 21
M10	Testing	Week 22
M11	Official Release	Week 23
M12	Viva	Week 28
M13	Project Submission (Dissertation)	Week 27-28

Table 4.0   Project Milestone

CHAPTER 4

RESULT & DISCUSSION

4.1 Introduction

This chapter focuses on information gathering and the method used to analyse and discuss the outcome of the information gathered. For information gathering, author chooses survey as the method because it is a convenient way for all students and public to participate. At the end of this chapter, author will further explain the benefit of the proposed animal adoption platform.

4.2 Result of Data Gathering

4.2.1 Survey & Data Gathering

To identify the awareness of people in regarding to animal abuse and the importance of the existing animal platform, author had prepared a set of 16 questions including demographic question, easy question about their pet and on their awareness on current issue regarding animal abuse. This survey is distributed via social media to solicit wide range and different answers among the participants. Total of 74 respondents has responded to the survey, 62.18% are female and 37.84% are male. The respondent age distribution are 87.84% 18 to 24 years, 12.16% 25 to 34 years old and none is aged 35 up to 44. This survey also covered various nationalities. From the data collected, 85.14% are local respondents and 14.86% are international respondents. Most of the respondent are currently studying in Universiti Teknologi Petronas (UTP) that is 59 respondent. Others are coming from different university such as 2 from Universiti Selangor(Unisel), 2 from Universiti Malaysia Pahang (UMP), 1 from Universiti Malaya (UM), 1 from Management & Science University (MSU), 1 from Universiti Putra Malaysia (UPM) and 4 others does not state their current university. The demographic chart of respondents are stated below. Besides, there are also question regarding their current level of study which varies from foundation level to final year. From the survey, respondent are majority from second

year which have the highest percentage of 31.51%, followed by first year which have 21.92%. Next is Third year student with 19.18% then others which mainly consist of people who took master or finished study with 13.70% and followed by final year student which have the percentage of 12.33%. The least number of respondent is from foundation student which only have 1.37%. The demographics distribution chart of respondent age (Figure 9.0), gender (Figure 10.0), nationalities (Figure 11.0), current university (figure 12.0) and current level of study (figure 13.0) are stated as below.

    a) Demographic question:

In this section, survey is being conducted in order to find out demographic information of the respondent, the result of the survey can be seen below:

What is your age?
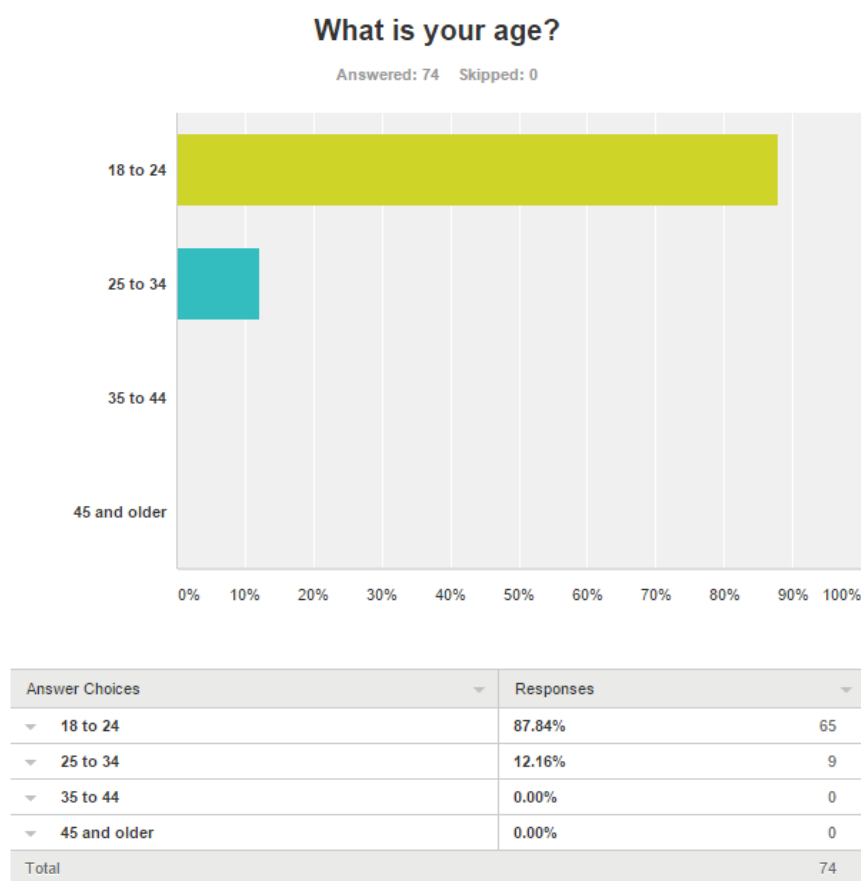Answered: 74   Skipped: 0

Answer Choices	Responses	
18 to 24	87.84%	65
25 to 34	12.16%	9
35 to 44	0.00%	0
45 and older	0.00%	0
Total		74

Figure 7.0: Respondent age distribution

What is your gender?

Answered: 74   Skipped: 0

Answer Choices	Responses	
Male	37.84%	28
Female	62.16%	46
Total		74
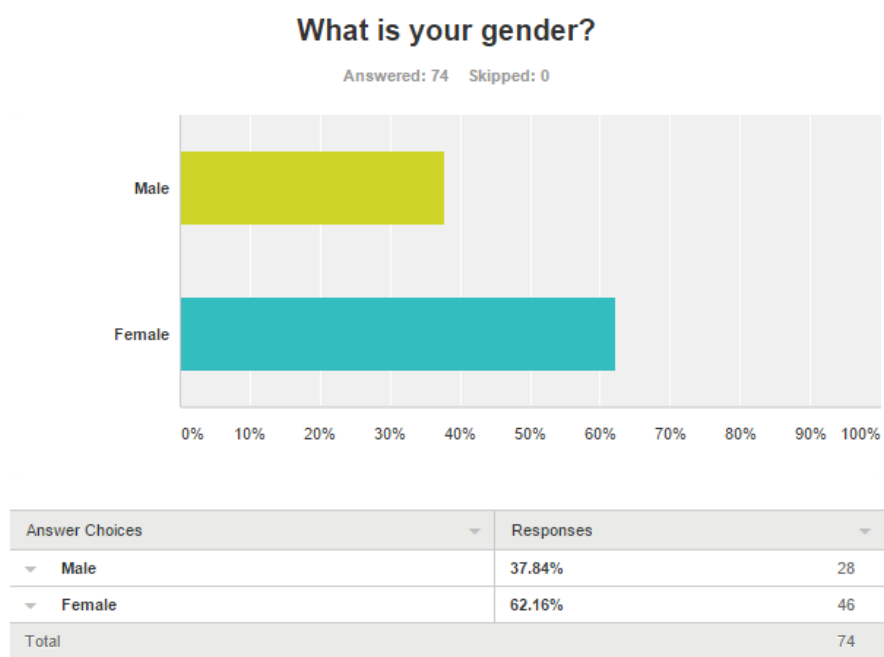
Figure 8.0: Respondent gender distribution

Nationality?

Answered: 74   Skipped: 0

Answer Choices	Responses	
Local	85.14%	63
International	14.86%	11
Total		74
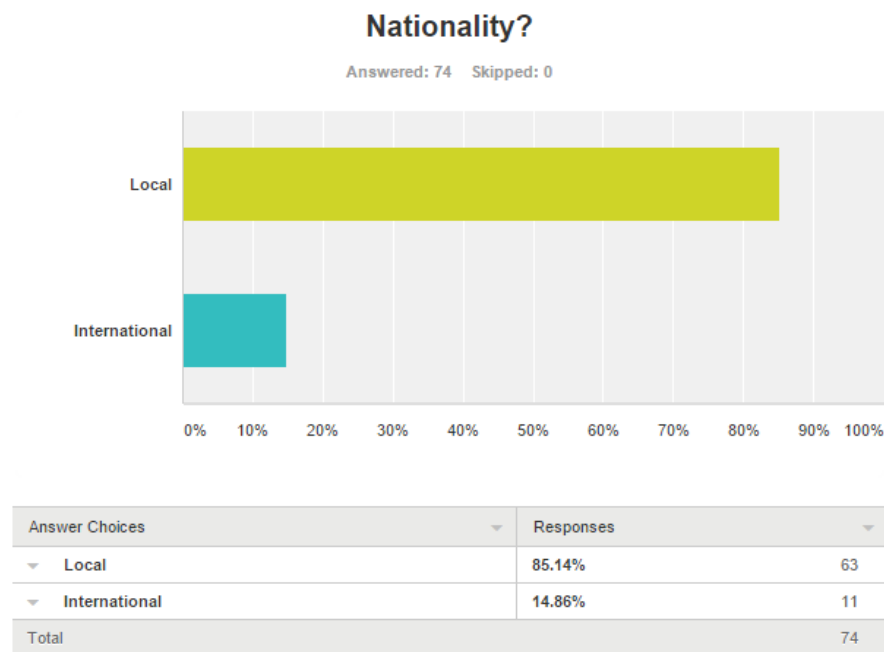
Figure 9.0: Respondent nationalities

Q4 Currently in University...?

#	Responses	Date
1	UTP	3/21/2015 3:58 PM
2	Utp	3/20/2015 9:34 PM
3	UTP	3/20/2015 6:23 PM
4	UTP	3/20/2015 6:22 PM
5	UTP	3/20/2015 6:21 PM
6	UTP	3/20/2015 6:20 PM
7	UTP	3/20/2015 6:19 PM
8	UTP	3/20/2015 6:18 PM
9	UTP	3/20/2015 6:17 PM
10	UTP	3/20/2015 6:16 PM
11	UTP	3/20/2015 6:14 PM
12	UTP	3/20/2015 6:13 PM
13	UTP	3/20/2015 6:12 PM
14	UTP	3/20/2015 6:11 PM
15	UTP	3/20/2015 6:07 PM
16	UTP	3/20/2015 6:05 PM
17	UTP	3/20/2015 5:42 PM
18	UTP	3/20/2015 5:24 PM
19	UTP	3/20/2015 6:23 PM
20	UTP	3/20/2015 5:19 PM
21	UTP	3/20/2015 5:15 PM
22	UTP	3/20/2015 5:13 PM
23	UTP	3/20/2015 5:08 PM
24	UTP	3/20/2015 4:58 PM
25	UTP	3/20/2015 4:57 PM
26	UTP	3/20/2015 4:56 PM
27	UTP	3/20/2015 4:49 PM
28	UTP	3/20/2015 4:48 PM
29	UTP	3/20/2015 4:47 PM
30	UTP	3/20/2015 4:45 PM
31	UTP	3/20/2015 4:44 PM
32	UTP	3/20/2015 4:41 PM
33	UTP	3/20/2015 3:28 PM
34	UTP	3/20/2015 3:27 PM
35	UTP	3/20/2015 3:26 PM
36	UTP	3/20/2015 3:24 PM
37	UTP	3/20/2015 3:23 PM
38	UTP	3/20/2015 3:22 PM
39	UTP	3/20/2015 3:21 PM
40	UTP	3/20/2015 3:20 PM
41	UTP	3/20/2015 3:19 PM
42	UTP	3/20/2015 3:18 PM
43	UTP	3/20/2015 3:18 PM
44	UTP	3/20/2015 3:17 PM
45	unisel	3/20/2015 3:16 PM
46	unisel	3/20/2015 3:15 PM
47	UMP	3/20/2015 3:14 PM
48	UTP	3/20/2015 3:13 PM
49	UTP	3/20/2015 3:12 PM
50	UTP	3/20/2015 3:11 PM
51	UTP	3/18/2015 9:51 PM
52	Universiti Teknologi PETRONAS	3/18/2015 9:46 PM
53	universiti malaya	3/18/2015 4:13 PM
54	UTP	3/18/2015 3:51 PM
55	no	3/18/2015 3:41 PM
56	UTP	3/18/2015 3:26 PM
57	MSU	3/18/2015 2:38 PM
58	Yes	3/18/2015 9:05 AM
59	no	3/18/2015 6:20 AM
60	UTP	3/18/2015 6:43 AM
61	universiti teknologi petronas	3/18/2015 7:01 AM
62	No	3/18/2015 4:08 AM
63	UTP	3/18/2015 2:27 AM
64	utp	3/18/2015 2:25 AM
65	utp	3/18/2015 2:11 AM
66	UPM	3/18/2015 1:17 AM
67	Universiti Teknologi Petronas	3/18/2015 12:42 AM
68	Utp	3/18/2015 12:38 AM
69	UMP	3/18/2015 12:37 AM
70	UTP	3/17/2015 11:48 PM

Figure 10.0: Respondent University

Current level of study?

Answered: 73   Skipped: 1

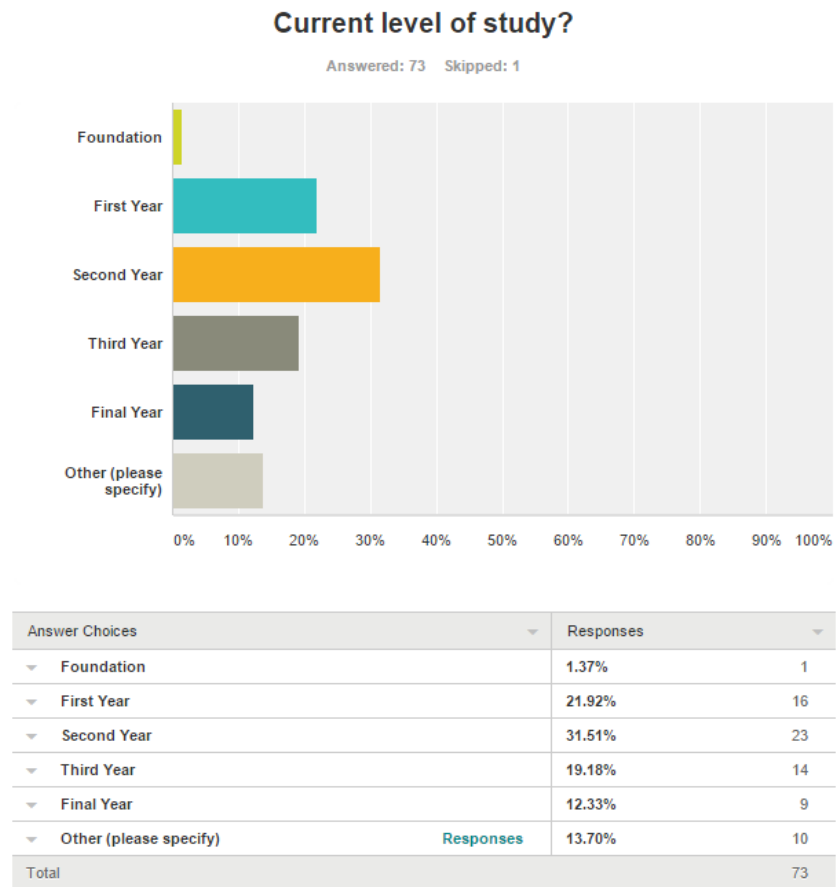| Answer Choices		Responses	
Foundation		1.37%	1
First Year		21.92%	16
Second Year		31.51%	23
Third Year		19.18%	14
Final Year		12.33%	9
Other (please specify)	Responses	13.70%	10
Total			73

Figure 11.0: Respondent level of study

b) Pet Survey Question:
   In this section survey given is about pets and their well-being. This is to record how many pets owner is aware about their pet's well-being and their willingness to spend time taking care of their pets.
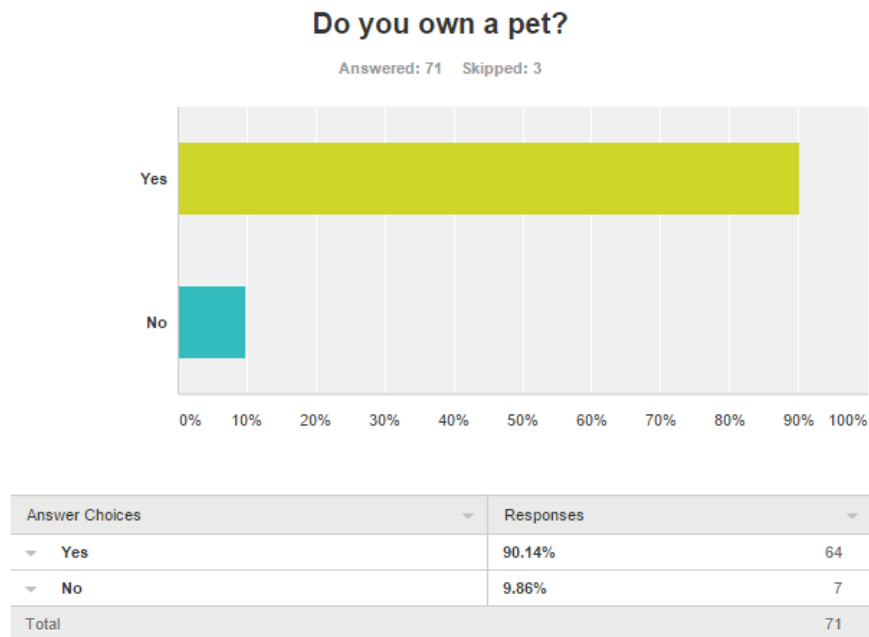

Figure 12.0: Do you own a pet

From the first question of pet survey section, majority of respondent currently owning a pet, the percentage is 90.14%. Balance of 9.86% does not have any pet. This shows that majority of the respondent have the experience having and managing pets.
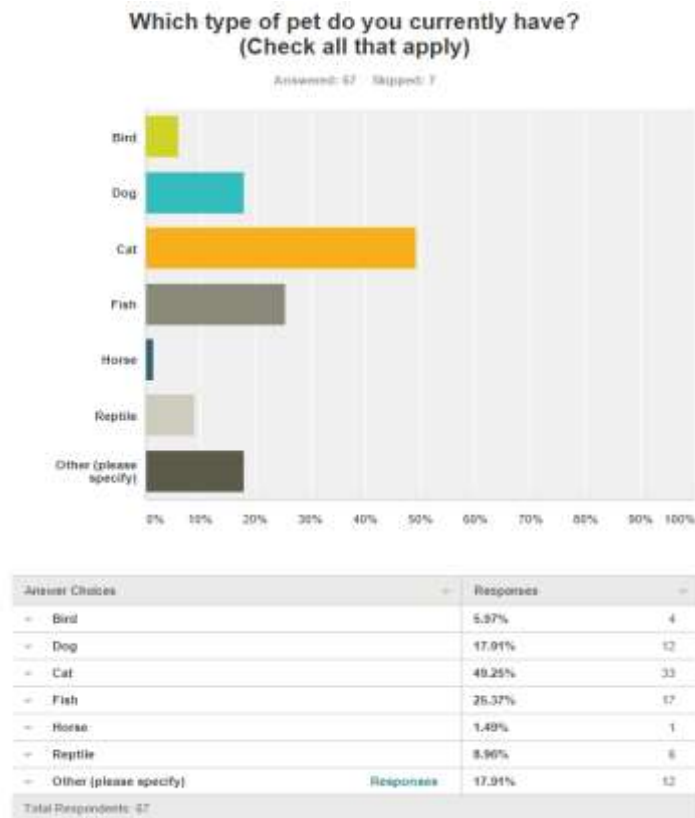
Which type of pet do you currently have? (Check all that apply)

Answered: 67   Skipped: 7

Answer Choices		Responses	
- Bird		5.97%	4
- Dog		17.91%	12
- Cat		49.25%	33
- Fish		25.37%	17
- Horse		1.49%	1
- Reptile		8.96%	6
- Other (please specify)	Responses	17.91%	12
Total Respondents: 67			

Figure 13.0: Type of pet

From the second question, type of animal which most of respondent manage is cats with percentage of 49.25% followed by fish (25.37%), dogs (17.91%) and others (17.91%). Least 3 animal respondent currently have are reptile (8.96%), bird (5.97%) and horse (1.49%). This shows that people are more likely to breed home pets and easy to manage.

For how many years have you been a pet owner?

Answered: 67　Skipped: 7

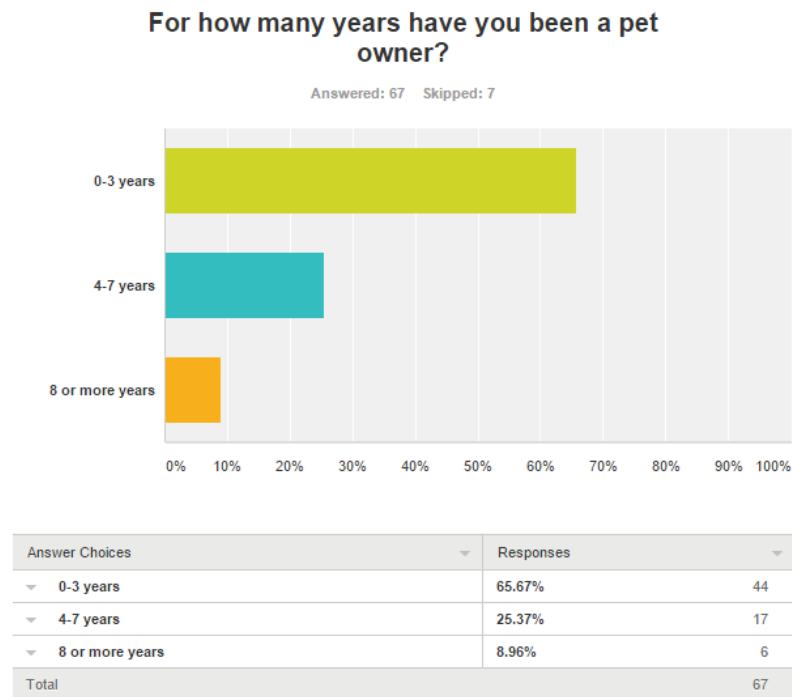| Answer Choices	Responses	
0-3 years	65.67%	44
4-7 years	25.37%	17
8 or more years	8.96%	6
Total		67

Figure 14.0: How many years has been a pet owner

From the third question from pet survey section, most of the respondent have 0-3 years of experience becoming pet owner (65.67%). Second place goes to respondent who have 4-7 years of experience (25.37%) and lastly the respondent who have 8 or more years of experience (8.96%). From this demographic distribution, we can analyse that most of respondent have least experience than respondent which have more experience in owning a pet.

How often do you spend time with your pet?

Answered: 67　Skipped: 7

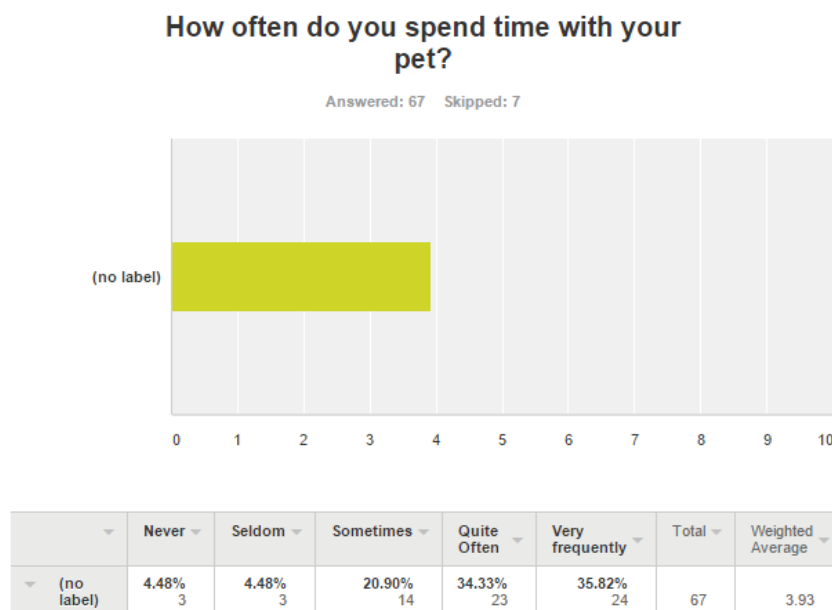|	Never	Seldom	Sometimes	Quite Often	Very frequently	Total	Weighted Average
(no label)	4.48% 3	4.48% 3	20.90% 14	34.33% 23	35.82% 24	67	3.93

Figure 15.0: Spending Time with pet

From the fourth question, most of respondent spend time with their pet very frequently and quite often. As we can see from the table, total number of respondent who answer very frequently are 24 person and have percentage of 35.83%, respondent who answer quite often are 23 person and have percentage of 34.33%. While other respondent who have different answer has total number of 20 people with 29.86%. This shows that most of the pet owner love to spend time with their pets.
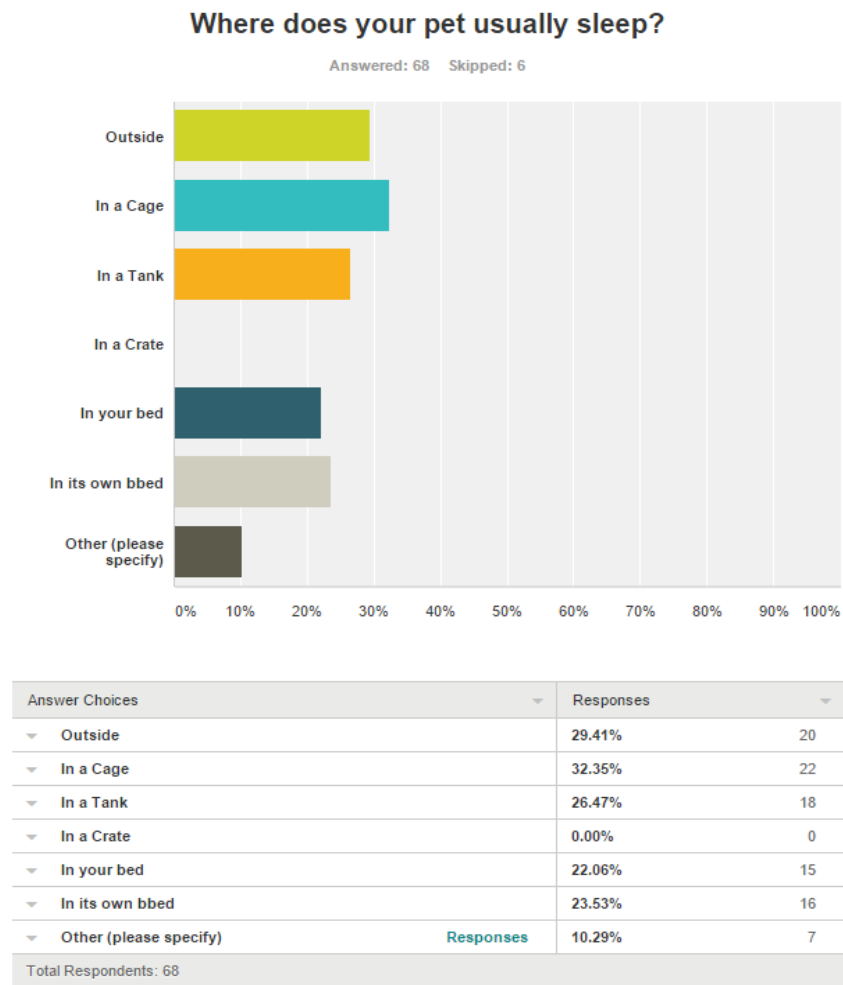

Figure 16.0: Where does your pet usually sleep

From this question, we can see that various kind of answer from the respondent. This is due to different kind of pets they currently have.
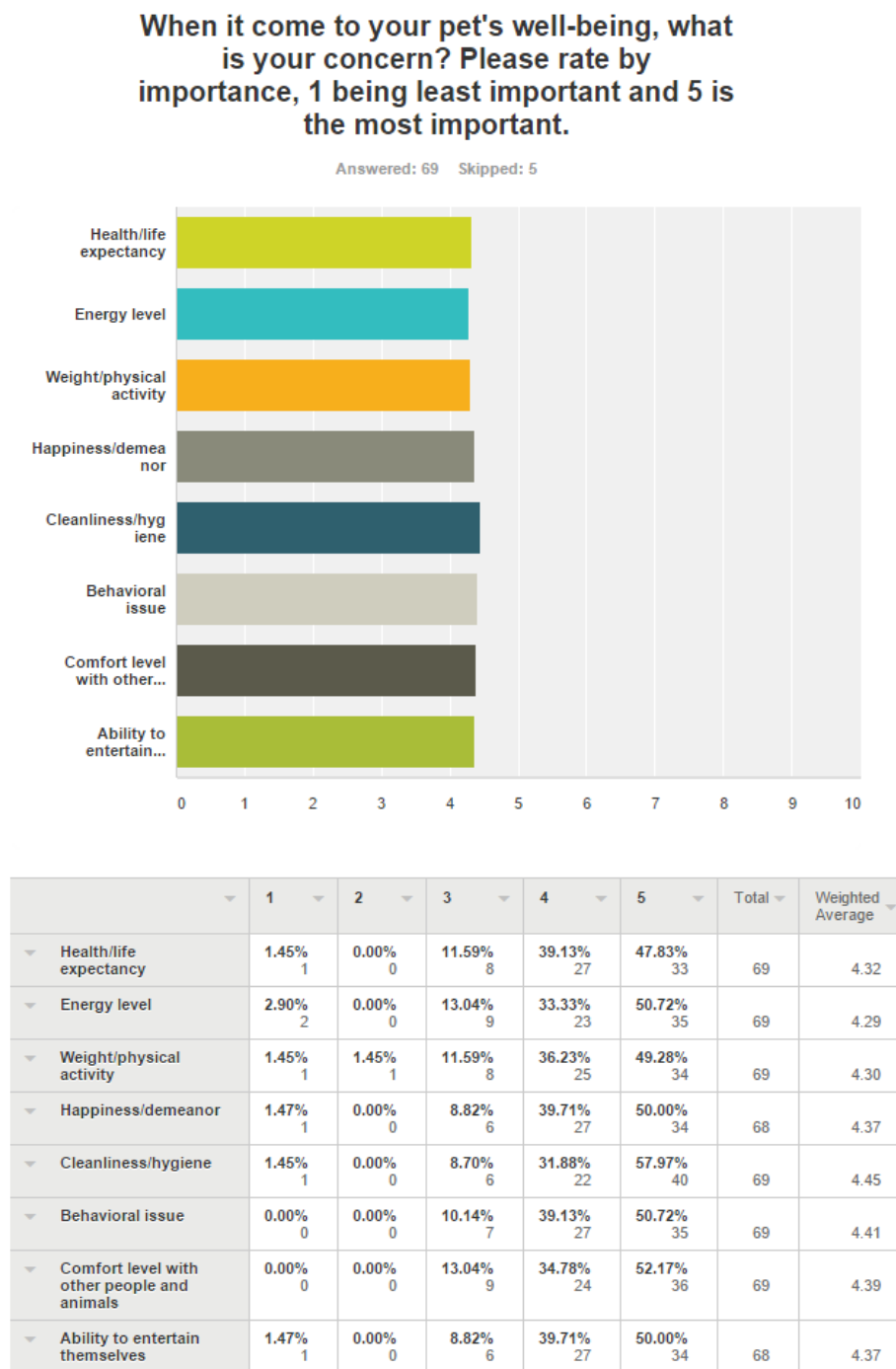
When it come to your pet's well-being, what is your concern? Please rate by importance, 1 being least important and 5 is the most important.

Answered: 69   Skipped: 5

	1	2	3	4	5	Total	Weighted Average
Health/life expectancy	1.45% 1	0.00% 0	11.59% 8	39.13% 27	47.83% 33	69	4.32
Energy level	2.90% 2	0.00% 0	13.04% 9	33.33% 23	50.72% 35	69	4.29
Weight/physical activity	1.45% 1	1.45% 1	11.59% 8	36.23% 25	49.28% 34	69	4.30
Happiness/demeanor	1.47% 1	0.00% 0	8.82% 6	39.71% 27	50.00% 34	68	4.37
Cleanliness/hygiene	1.45% 1	0.00% 0	8.70% 6	31.88% 22	57.97% 40	69	4.45
Behavioral issue	0.00% 0	0.00% 0	10.14% 7	39.13% 27	50.72% 35	69	4.41
Comfort level with other people and animals	0.00% 0	0.00% 0	13.04% 9	34.78% 24	52.17% 36	69	4.39
Ability to entertain themselves	1.47% 1	0.00% 0	8.82% 6	39.71% 27	50.00% 34	68	4.37

Figure 17.0: Pet's well-being

This question is basically questioned about the well-being of respondent's pets and most of the respondent are taking their pet's well-being seriously. As we can see from table, most of the respondent answer on scale of 4 or 5 which is have the highest priority.

c) Animal Abuse survey:
    In final section in the survey, author ask about public awareness relating to animal, this section is conducted to find out if there are any respondent had abuse any animal before and their reason.
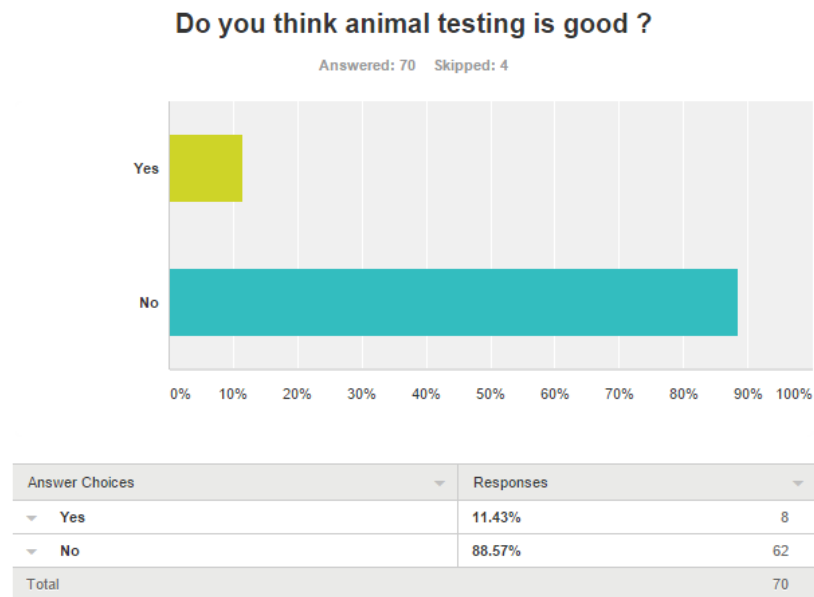
Do you think animal testing is good ?

Answered: 70   Skipped: 4

Answer Choices		Responses	
▾	Yes	11.43%	8
▾	No	88.57%	62
Total			70

Figure 18.0: Animal testing

The first question in animal abuse section is whether the respondent think animal testing is good? Majority of them has percentage of 88.57% while others who answer it is good has percentage of 11.41%. From this question, we can conclude that most of people are aware about the negative result of animal testing.

Are you aware about current issue relating to animal abuse?

Answered: 70   Skipped: 4

Answer Choices		Responses	
▾	Yes	84.29%	59
▾	No	15.71%	11
Total			70
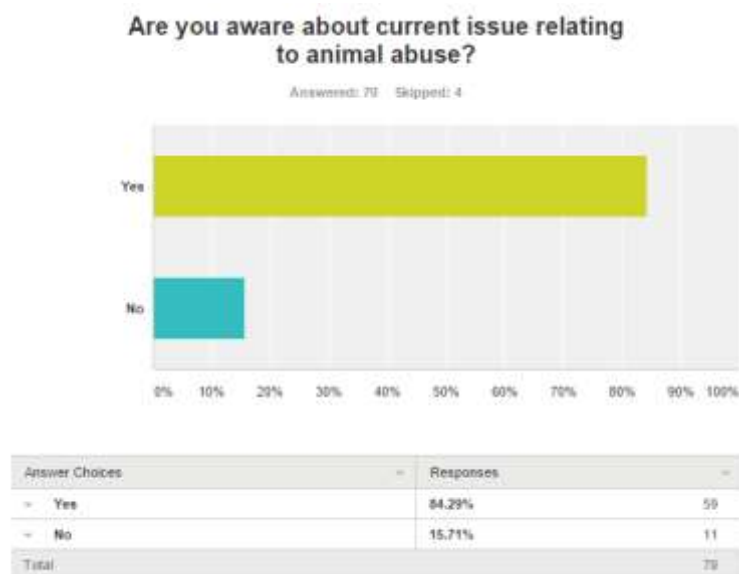
Figure 19.0: Current Issue

Second question is on awareness of current issue relating animal abuse. Majority of respondent (84.29%) answer yes which they aware, and there are 15.71% of respondent who answer no. The respondent who no might lack of exposure of current issue regarding animal abuse.
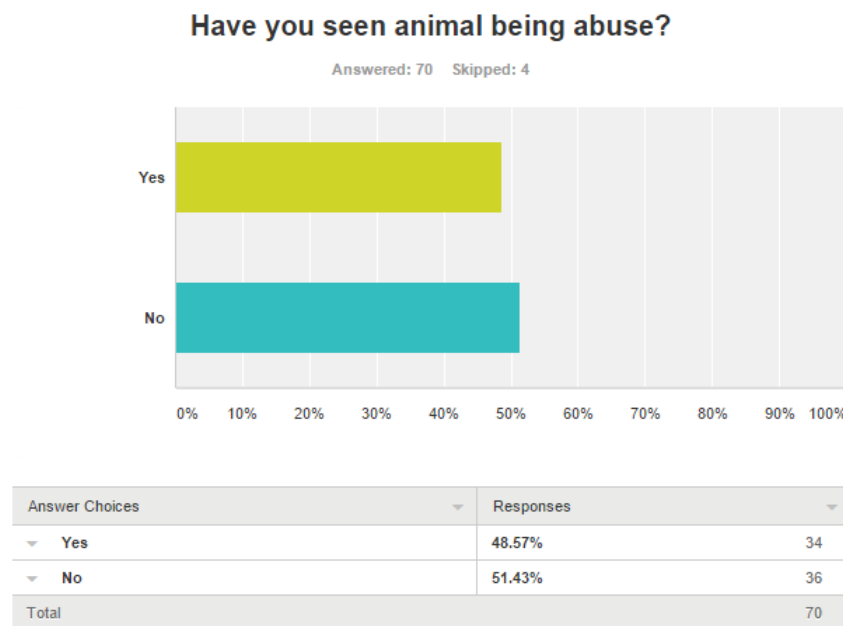
Figure 20.0: Animal being abuse

Next is the author asked the respondent whether they have seen animal being abuse. Most of the answer is no, with number of respondent 36 and people who answer yes is 34 respondents.

Have you ever abuse an animal ?

Answered: 70 Skipped: 4

Answer Choices		Responses	
▼ No		97.14%	68
▼ Yes (please specify your reason)	Responses	2.86%	2
Total			70
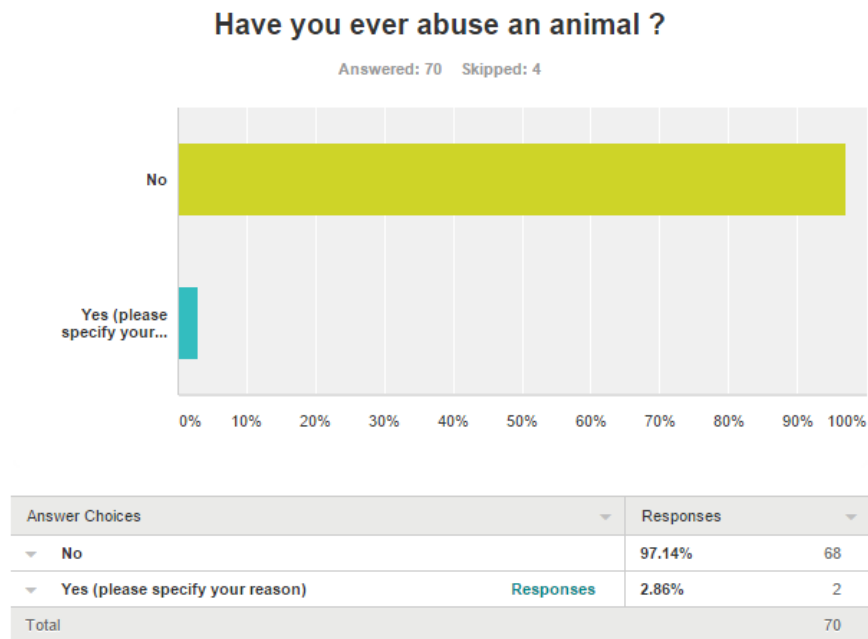
Figure 21.0: Have you abuse an animal

Fourth question is about respondent, author asked thru survey whether they had abuse any animal before. The answer collected was quiet relief as majority with 97.14% had not abuse any animal. For those who state that they had abuse which only 2 person, their reason to commit that is because annoyed and didn't know that his/her act is consider as abuse.

Do you think animal are unintelligent and does not have emotion?

Answered: 70 Skipped: 4

Answer Choices	Responses	
▼ Yes - They are unintelligent and does not have emotion	0.00%	0
▼ No - They are intelligent and have emotion	70.00%	49
▼ I'm not sure	30.00%	21
Total		70
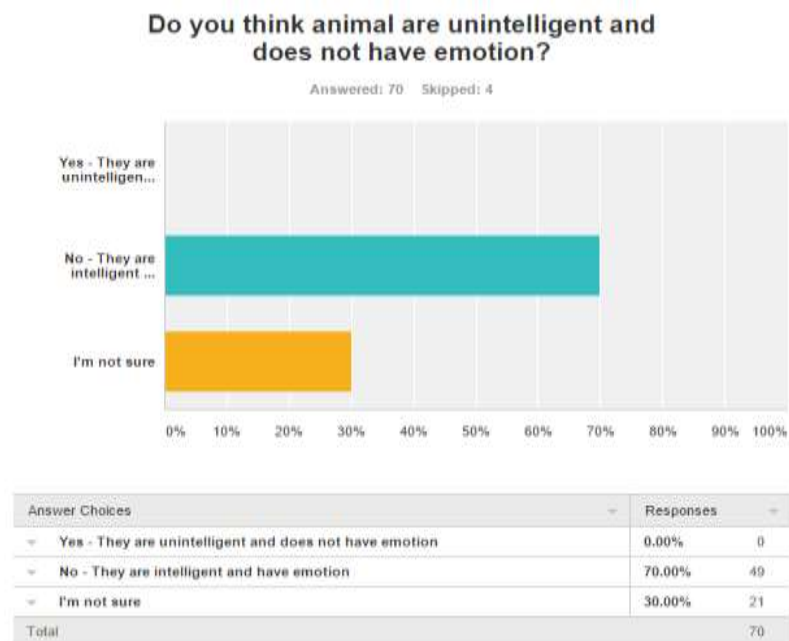
Figure 22.0: Animal intelligent and emotion

Next question is about the intelligent and emotion of an animal. Author asked what respondent think about animal, do they don't have any emotion and intelligent. Most of respondent answer no with 70.00% which determine that the animal is intelligent and have emotion, the rest of respondent answer not sure (30.00%) and none answer yes.

Do you think animal should have rights ?

Answered: 69   Skipped: 5

Answer Choices	Responses	
Yes	95.65%	66
No	4.35%	3
Total		69
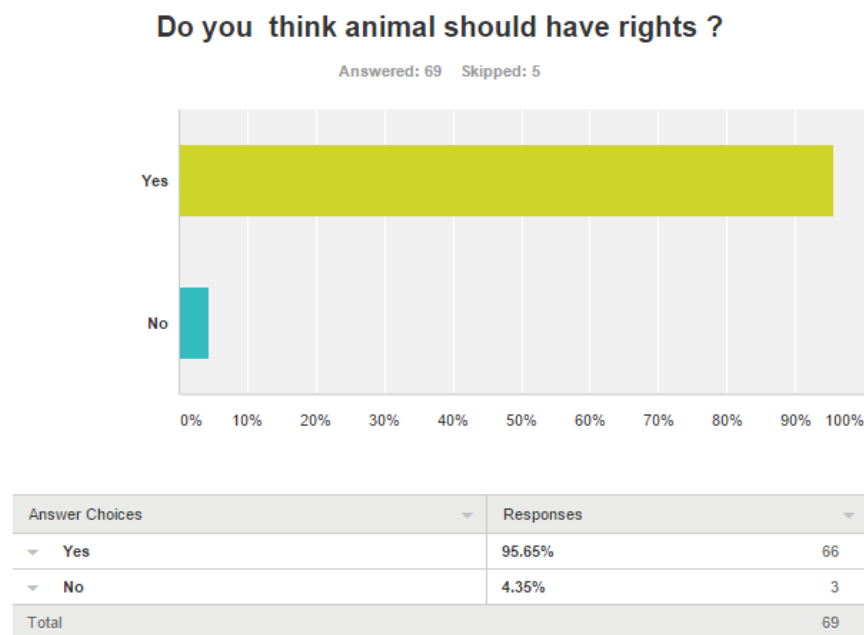
Figure 23.0: Animal rights

Last question being asked in the survey is do respondent think animal should have their rights? Majority of respondent answer yes with (95.65%) while the rest answer no (4.35%)

4.2.2 Interview

On 27th June 2015, an interview is conducted with Miss Andria, Owner of Save our Strays (SOS), a non-government animal association located in Pulau Pinang. Miss Andria is very experience in handling strays animal as she is one of veterans who helps to operate and neuter the animal.

She has been working with SOS for about 3 years, author believe that she is the right person to discuss the issues of strays animal and the website which the author believe can help to minimize problem faced by the animal association. The aim of this interview is to get to know more on the viability of author proposed website based on their perspective.

According to Andria, the idea proposed was able to catch her attention as the website could help more stray animal to find home and new owner. According to her, public wouldn't want to adopt animal if the animal is in unorganized state because they scared the animal carry dangerous disease.

One of the effort done by animal association to decrease the number of stray animal is TNR program. TNR stand for Traps, Neuter and Release. However, not many strays animal can be traps since they also lack in number of volunteer to work with them. By creating this website, Andria believe many people will have chance to help by sending strays animal or even their pets to animal association either to neuter or to surrender for new owner.

Figure 24.0 Save Our Strays Facebook Page

4.3 Project Prototype

To develop a comprehensive wireframe prototype, different component design of the main functionality have been re-module and updated from time to time in order to build the best feasible wireframe that will suit the tasks required.

4.3.1 Homepage
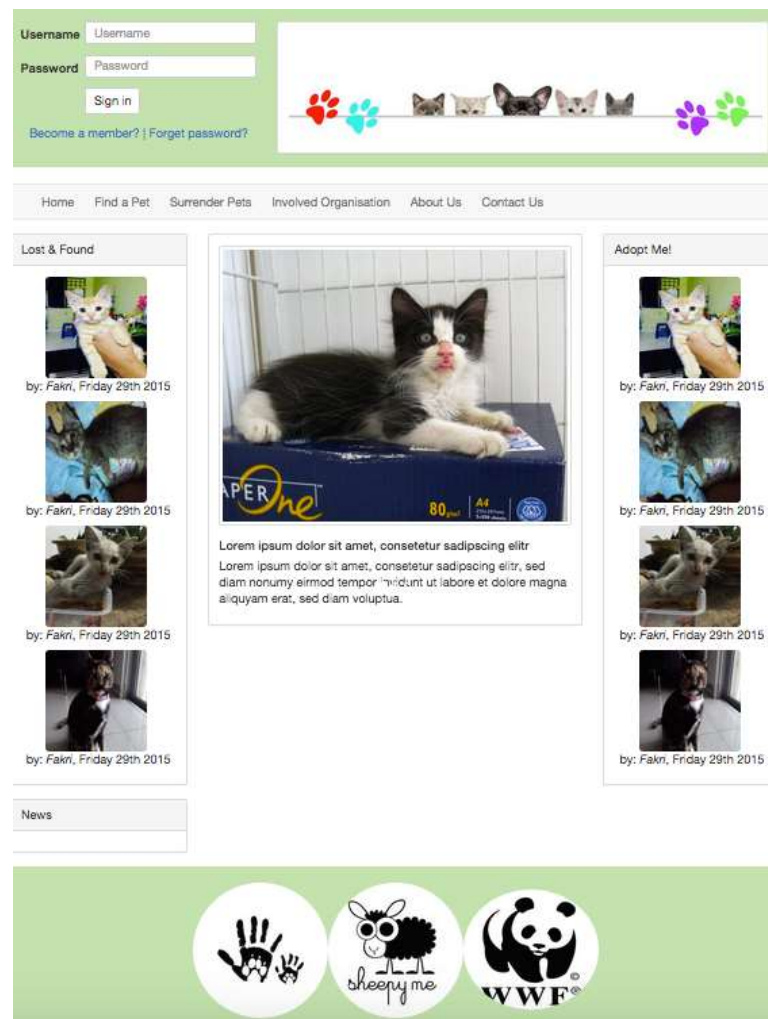
Figure 25.0: Home Page

This is the homepage for patmeow.my which consists of features of animal for adoption in adopt me! Section. On this page, user could find out about the current news relating to animal and they can also see the lost and found section.

4.3.2 Find a Pet

Figure 26.0: Find a Pet

In this page, user can search the animal according to type of animals and organization. Besides that they can also search animal available in the listed organization for adoption.

4.3.3 Organization Registration

Figure 27.0: Organization Registration

On this page, it involved animal association who wish to register as one of the contributing organization in this website. By register or signing up, animal association can upload their available pets for adoption and their information.

4.3.4 User Registration

Figure 28.0: User Registration

This section is designed for user to sign up as one of the member. The benefit the user will get is they can view list of animal for adoption from various animal association registered. They will also get to read latest news regarding animal issue on the website. Beside that they can participate in adoption or surrendering activity.
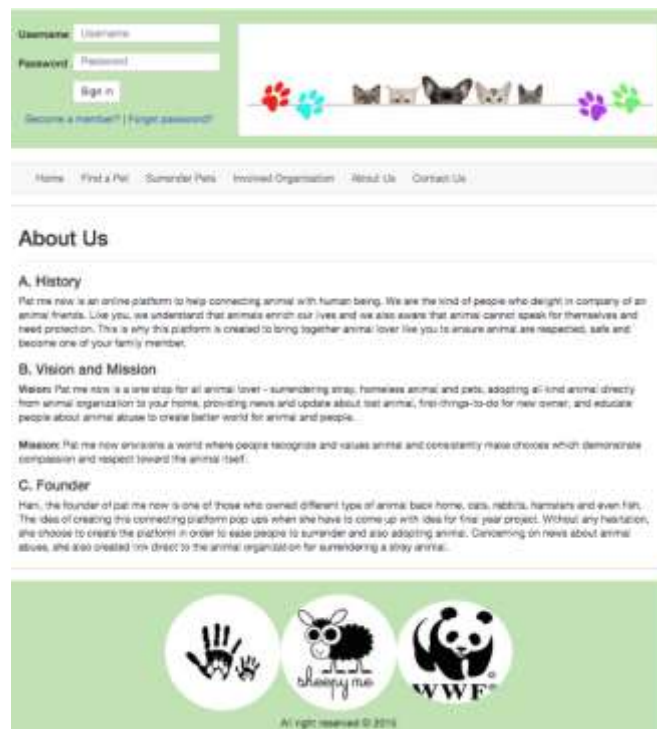
4.3.5 About Us page

Figure 29.0: About Us

This page briefly tell public about patmenow.com, it contain 3 section which is history, vision and mission and the founder. User can find information about patmenow.com in this page.

4.3.6 Contact Us Page

Figure 30.0: Contact Us

This is the most important page as the user can find the contact information of patmenow.com. The information available are address, email and phone number of the founder. They can also leave message by filling up the text box available.
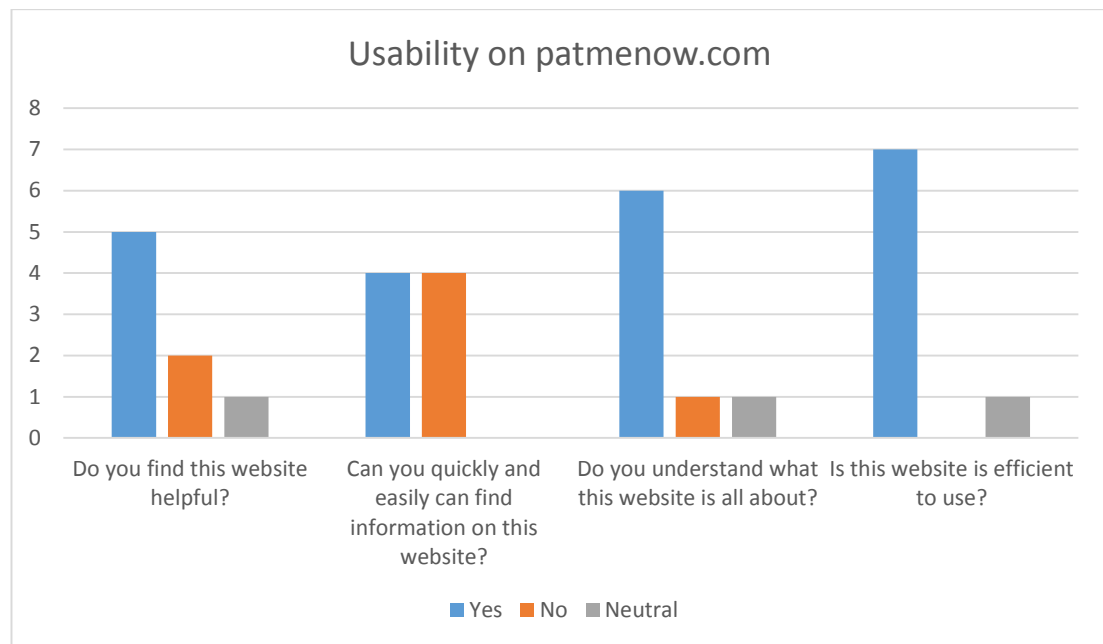
4.4 Testing

4.4.1 Usability Testing

Figure 31.0 Usability Graph on patmenow.com

This testing is conducted in order to see the usability of the system from user view. According to graph above, the test had been conducted on 8 respondents. There are total of 4 question being asked and majority of the respondent understand what the website is all about. Almost all respondent think that this website is efficient to use as the channel for animal association and public regarding pets and stray animal.

4.4.2 Integration Testing

Test case ID	Test Case Objective	Test Case Description	Expected Result
01	Check the interface link between Login and Involved Organization	Enter Login credentials and click on login button	Directed to the Organization Homepage
02	Check the interface link between Login and User	Enter Login credentials and click on login button	Directed to the User Homepage

Table 7.0 Integration testing on patmenow.com

name	username	email	user_level
Save Our Strays	SOS	saveourstrays@gmail.com	organization
Hafify Fitry	Fye	adzazel@gmail.com	user
jiyaaa	jiyaaa	terbangramarama@gmail.com	user
Atiqah Shahirah	syiraa	atiqahshahirah@gmail.com	user
abulmizan	mizan	abulmizan92@gmail.com	user
Adam	Adam	adams5575@gmail.com	user

Table 8.0 Tester information on patmenow.com database

Integration testing is execute to establish whether the components interact with each other to the specification or not. Integration testing in large refers to joining all the components resulting in the complete system. Figure 34.0 shows the integration test case where it focuses mainly on the interfaces and flow of data and information of module. For example the login function for both organization and user. Figure 35.0 shows the real test being conducted during testing phase which involve five user and one organization. The figure has shown that the system flows on the login part is correct and accurate.

CHAPTER 5

CONCLUSION & RECOMMENDATION

5.1 Conclusion

Animal Adoption/Surrender platform can help to increase the efficiency in term of communication between public and animal welfare organization. With this platform, public can easily surrender in their own pets or stray animal. This platform are also available for public to adopt pets or animal which available in any organization listed in the platform. This will enhance their interest to adopt because there will be various kind of animal with various breed from different organization. There are also an information page which tells the adopter what they should do if they want to have pets. At the same time, this page is a good initiative by helping to promote the organization which contribute in this project. Public will exposed with lots of information regarding the organization involved and create self-awareness on current animal issues such as abuse problem.

5.2 Recommendation

Once this platform is completed, there are also some recommendations that can recommended for other to improve the software and the performance of the platform. In term of software, the platform can be built on android and iOS platform which the programmer need to update regularly so that the platform on android or iOS is stable and did not cause any memory loss. In tern of performance, the information provided by the organization must be update every time there are changes as it will ease public to notice which animal is available is which is taken.in the future, it is recommend that the platform install the auto-updating tools in which will notice any current update from any organization website that can be included into the platform.

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