The Impact of Information Gaps on Decision-Making in Pet Welfare

by

Benas Bubulas

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Abstract

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by Benas Bubulas

The author researches and analyses how animals are prone to neglect and sent to shelters primarily due to their owners' incompetence. The author looks at the different possible ways that potential pet owners are influenced into making incorrect decisions. The aim of this research is to not only be able to shed light on the problems but also be able to find and provide tangible solutions by designing an application that would allow people to have quick and easy access to invaluable information when adopting or taking care of a pet. By doing so, the author hopes to accomplish in reducing the already absurdly high numbers of animals in shelters and to allow families to make more confident decisions.

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Chapter 1

Background

With the rise of social media, misinformation has increased respectively and people who own or think about owning pets are inevitably going to stumble across misleading content that will impact their decision-making negatively. Unfortunately, people are prone to jumping to conclusions and adopting pets during special occasions such as Christmas without thinking ahead or doing proper research. Many pets end up suffering because of this fact. A Staggering 71% of cats that enter animal shelters are euthanized, with dogs being not far behind at 56%[1].

Chapter 2

Main Research Questions

- How does the lack of pet information in the age of social media affect people's decisions regarding pet ownership?

- What are the effects of incorrect or misinformed pet care practices regarding feeding, grooming, and training?

Chapter 3

Justification/Benefits

Currently, there are very few apps that can assist people in choosing a suitable pet companion. Some veterinary articles may provide useful information however it is inefficient, and people may not know exactly what they are looking for. This is why a project such as this would be a benefit, it will provide all the information needed to adopt and tend to an animal chosen by a person or family. By identifying and debunking disinformation people can become better informed about pet welfare and make better decisions that will not put an animal at risk. Countless pets are impulse bought by owners primarily because of bad, misguided decisions that end up inevitably leaving them in shelters. They are then euthanized because of the lack of space in those shelters, as they already have far too many abandoned or lost pets to begin with.

Chapter 4

Feasibility

This Project is going to be created using the language Typescript as the au- thor is interested in learning and researching another programming language while creating the web application. Visual Studio code (Vs Code) will be used as the code editing software when developing the project. It is created by Microsoft and it has many useful features while not being clustered at the same time. It features an integrated terminal which allows the author to be more time efficient and productive as it removes the need to have an exter- nal window to run commands. Vs Code is an incredibly lightweight program that allows itself to be run on the majority of computers and laptops, this is crucial to the author as their laptop is no longer running at peak perfor- mance. Most importantly, Vs Code has a very large and active community that are consistently working on ways to improve the program and help fel- low developers by answering their questions and creating extensions to make coding more comprehensible and efficient. The author will also use the Next.js framework in order to bring more functionality to the application. It is used by many large companies and has great features such as client and server rendering, route handlers, and react server components [3].This means that they will be able to use popular libraries such as Tamagui or DaisyUI and utilize their components and make the web application more user friendly and appealing. In order to not lose potential progress while developing the author will use Github for version control. Github is widely used by developers because of its incredibly useful functionality that allows users to track bugs and issues in their project. While the author is not going to be working with a team this time, it is worth noting that Github possess great collaboration capabilities and allow multiple developers to work on the same project. They can all edit,commit, and push their work on the project, while also being able to review other teammates work. The authors application will also have to use a database in order to be able to store user information such as their pets and other companions.

In order to accomplish this the author will use Planetscale which is a MySQL serverless database.

Chapter 5

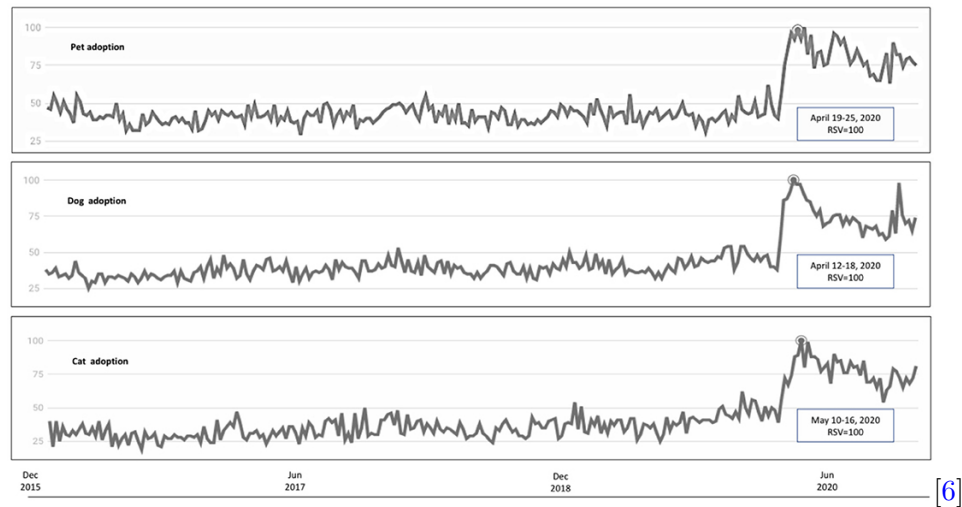# Literature Review

5.1 Introduction

In today's society, having a pet in one's family has become an integral part of many
households. As many individuals set out to welcome pets into their homes, their decision-
making process is influenced by various factors and sources, which are in most cases, the
internet, and social media. Unfortunately, although there is an abundance of information
online, it is very rare for this information to have any reference to a reputable source
[2]. Unfortunately, the lack of information about pet ownership decisions has significant
and varied consequences. This literature review aims to explore existing research on
the impact of missing or incorrect information on pet ownership decisions. The author
hopes to find patterns and gaps in knowledge and to be able to provide a comprehensive
understanding of the misinformation that negatively influences the choices of potential
pet owners. By doing so, the author is looking for ways to contribute and spread correct
information, enhancing the well-being of pets and their owners.

5.2 Pet Adoption

5.2.1 The Human-Animal Bond

Adopting a pet has become a widespread practice. Many people do it for various reasons,
such as wanting a sense of purpose, and caring for a pet can help the owner's well-being,
which in turn, gives an animal a second chance at having a healthy life. There have also
been many studies done which show that adopting a pet may also provide physiological
health benefits[3], such as lower blood pressure and increased survival rates after a heart
attack [4]. Other potential individuals looking to adopt may seek companionship and

emotional support, in an attempt to reduce the feelings of loneliness and isolation. This reason in particular could be responsible for the steep incline in the adoption rates during the COVID-19 pandemic. [5]

[6]

5.2.2 The Reality

However, the widely held notion that pet adoption comes with numerous mental health benefits lacks substantial research support. A study by Liat Morgan et al. states that adopting an animal is in fact good for the owner's mental health, and the human-animal interactions will help with depression and anxiety[5]. Another study, done by Katherine Jacobs Bao and George Schreer, expressed that others saw no correlation between pet adoption and benefits to mental health[4]. These findings are slightly concerning as it was found owners who had just adopted a dog were expecting to have decreased stress levels (74%) and loneliness (61%) [7].

5.3 Factors That Lead to Animals Being Taken to Shelters

5.3.1 Overpopulation

Unfortunately, there are numerous amounts of reasons why animals are sent to shelters. The leading cause of the absurd amount of animals in shelters is uncontrolled breeding and overpopulation. Animals that have not been spayed or neutered will most likely reproduce, and this will further add to the problem of homeless or sheltered animals. In fact, in 1974, National conferences were held in order to fight and address this issue. [8]. The consequences of allowing overpopulation inevitably resulted in mass euthanasia. To further prevent this problem, their solution was to organize clinics with reduced costs to

spay or neuter pets, and legislation was passed for sterilization to become a requirement in shelters. [8].

5.3.2   Pets with Behavioural Problems

While it can be safe to say that every pet owner makes the decision to adopt a pet in order to have a friendly companion and many positive interactions, the result is not always the case. Many pets will exhibit behaviour problems such as:

- Aggression

  - They may show signs of aggression when they feel possessive over certain items such as toys or food. However, they can also act aggressively out of fear, as the pet may perceive somebody as a threat.

- House Soiling

  - Urinating or defecating indoors. This can be caused due to medical or behavioural reasons such as territorial marking.

- Barking

  - Needlessly barking to a disruptive level.

- Attention-Seeking

  - Seeking attention in undesirable ways. This can be by barking, meowing, or whining.

- Destructive Behaviour

  - Destroying furniture and biting or scratching chairs, sofas, and belongings. There can be many underlying issues as the root cause for this behaviour.

- Separation Anxiety

  - Disruptive behaviour when left alone, such as urinating indoors and barking.

This type of behaviour puts a serious strain on the bond between the pet and their owner. This unfortunately affects the owners' emotional and mental well-being. They

can find themselves struggling with frustration, stress, and guilt as they try to manage and resolve their pet's behaviour. Around 26.4% of pets are being sent to shelters because of this [8]. According to the research paper "Living with and loving a pet with behavioural problems: Pet owners' experiences", owners have admitted to having mixed feelings towards their pets who have behavioural problems and although many feel sadness and fatigue, others have admitted to feeling embarrassed, having to choose their path carefully when they are with their pets [9].

5.3.3   A Sudden Change of Lifestyle

Another leading cause of animal abandonment is an abrupt and or unexpected change of lifestyle, with an approximate estimate of 27% [8]. Owners, especially the elderly, may encounter health problems or injure themselves which may lead to physical limitations, no longer allowing them to properly take care of their companion. However a change in lifestyle may not be health-related, others may have a relationship change, such as a divorce, or the death of a loved one. And many people, especially nowadays, struggle to keep themselves financially stable, a sudden loss of financial stability may force the owners to surrender their pets to shelters.

5.3.4   Time and Responsibility

Regretfully, many owners also give up their dogs because they have severely misjudged the amount of time and energy it takes to properly care for an animal. This is especially true for those who have adopted very active dog breeds such as border collies. They are the most common breed of dog found in shelters because of the lack of research done by individuals looking to adopt. Border collies are farm dogs and require plenty of exercise. It is advised that these dogs should be walked for over two hours every day.

5.4   Animal Health

Pet owners can also potentially misunderstand or ignore signs of illness and may not seek veterinary care. This may sound unrealistic and unlikely to happen, however, pets cannot communicate verbally, so it is extremely important that the owners pay attention to their pet's signals such as their body language and behaviour. Unfortunately, many owners are extremely busy and many of them work long hours, which makes it almost impossible to notice such subtle signs.

However, even when these signs have been noticed by the owners, going to the vet is not always the obvious choice. Many owners cannot afford to pay for expensive surgeries, and others have their own opinions on health treatment. A study done by Ri Scarborough et al, found that 72% pet owners thought that veterinarians should only administer antibiotics when it was absolutely necessary [10].

5.4.1 The Internet

The internet has become an invaluable resource for an abundance of information regarding any topic. However, it is not always as reliable as many users are led to believe. Fortunately, the reliability of information has increased in this regard over the years and nowadays the user can send a request to remove false or misleading articles to Google [11].

A study that was done by L Kogan et al. conducted a survey which investigated how their clients use the internet in regard to animal health and welfare. Thankfully, although there was no specific web page that everyone utilised, the clients reported that the most important aspect for them when researching animal information online, was to make sure the websites in question were credible and had sources to their information [12].

5.5 Possible Solutions

Although some circumstances that are out of the individual owners' control may be unavoidable, such as the previously discussed unexpected lifestyle changes, or the animal overpopulation crisis, there are still many other problems that can be addressed and possibly solved. Looking back at the issues arising due to unwanted animal behaviour, the same study by Kristin Buller and Kelly C. Ballantyne stated that pet owners found coping strategies that allowed them to resolve their ill feelings towards their misbehaving pets and work with them. This included researching and looking deeper into additional education on animal misbehaviour. They also found that having support from their families and talking to professionals in the area such as veterinarians and trainers was a massive help to them [9].

Many respondents emphasized the advantages of accepting their pets' behavioural issues and acknowledging their needs. Some have expressed their thoughts of them as "His reactivity and barking are part of who he is. We learn to manage it and, in the meantime, consider him the smartest, best, and handsomest dog in the world."[9].

Other issues such as misjudgement of time and the responsibilities required when owning a companion can also be resolved with proper research and fact-checking. This is especially important when the potential adopter has little knowledge of the pet they would like to bring into their lives. The needs of different dog breeds for example vary immensely, and while some breeds can be quite easy to take care of, others can be extremely challenging. Luckily, organizations such as Dogs Trust, a dog welfare charity, exist. They adopt dogs from shelters and dog pounds and make every effort to make sure that the dog is re-homed to a proper living space [13]. Their process is extremely thorough. Dogs Trust ask for a virtual tour of the owner's living space, and after having a discussion, if everything fits into place, they arrange a visit with the dog in mind. But even then, the possibility of adoption is still in question. The dogs in their care have most likely had a rough life so it is their goal to give them as good of a second life as possible [14].

Although the author is thankful that organizations such as Dogs Trust exist, they struggled once before to adopt from Dogs Trust. They had emailed them and filled out the forms but received no feedback. The author is unsure whether this is a common occurrence or if they did not fit in the criteria, however, some form of feedback would have been helpful to understand what approach they should take next.

Also, regarding the case of overpopulation, although the existing problem cannot be solved by the individual owner, it can be further prevented and slowed down by educating them on reasons why neutering is important and the benefits of performing such a procedure. It is important to allow the owner to understand that doing so will not harm the pet and will in fact prevent future generations from homelessness and euthanasia.

5.6   Conclusion

To sum up everything that has been stated so far, there are many factors that lead to the unfortunate event of animals being surrendered to shelters, left abandoned or mistreated. Many of those factors are not directly related to the individual owner's lack of knowledge, such as the case of overpopulation, or a sudden change of lifestyle. However, there are still a lot of cases where animal mistreatment could have been prevented. For example, pets with behavioural problems are mainly caused by owners who are not properly informed or do not have the time to properly address the issues. In those cases, many owners admitted to looking deeper into pet-related education and expressed promising results. Also, as stated previously, some owners were hoping to adopt a companion in order to have some stress relief and help with anxiety, but as seen by research that has been done, bringing a companion into your life does not always come with those benefits,

and in those cases, having a quick and reliable way to find information could have been a great benefit to those individuals.

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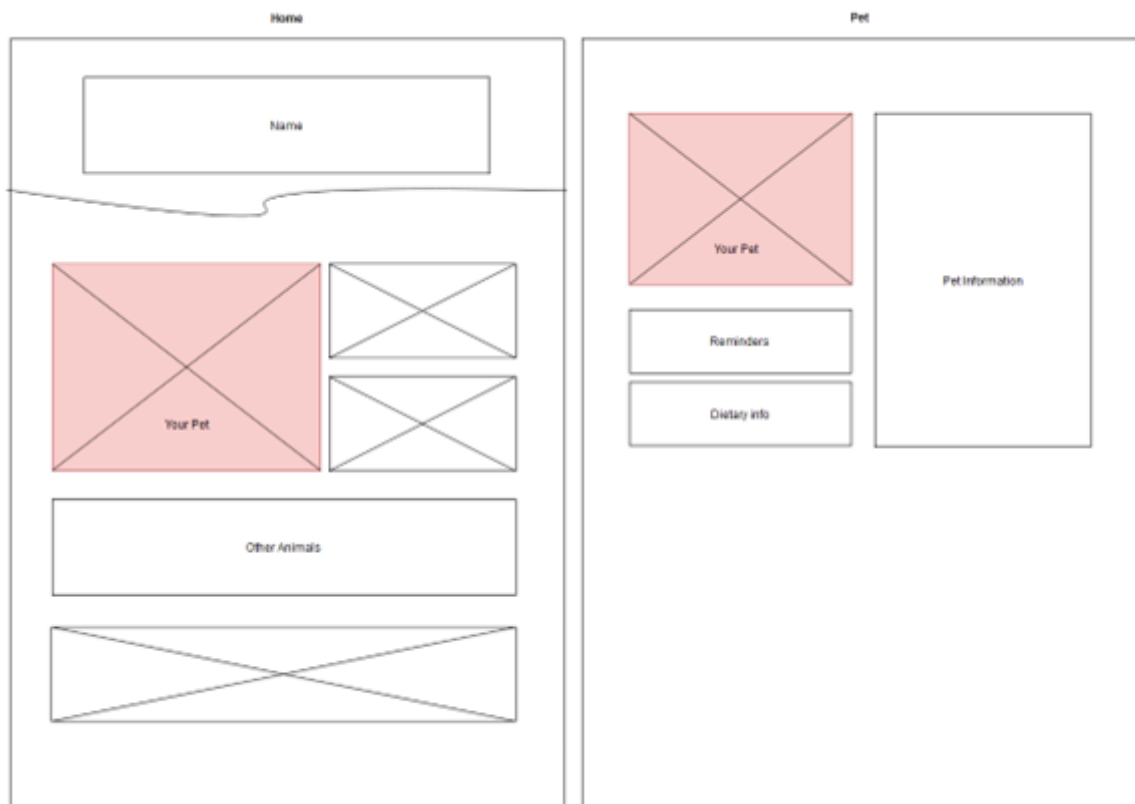# Chapter 6

Proposed Methodologies

6.1 ASDLC

The author plans to use the Agile Software Development Life Cycle:

- Requirement Analysis

  - This phase is essential as it helps the author have a clear under- standing of what needs to be built and for whom it needs to be built.

- Design

  - The Agile SDLC focuses on creating applications that are suffi- cient enough to run. They should not be fully developed in one sprint and be minimalistic by design.

- Development

  - The development phase is where the project begins to be coded and is produced in small iterations or sprints. This phase typically lasts for about 1-4 weeks, and it is important to not get carried away in this process.

- Testing

  - Testing is done concurrently while developing to ensure improvements and the quality is up to standard.
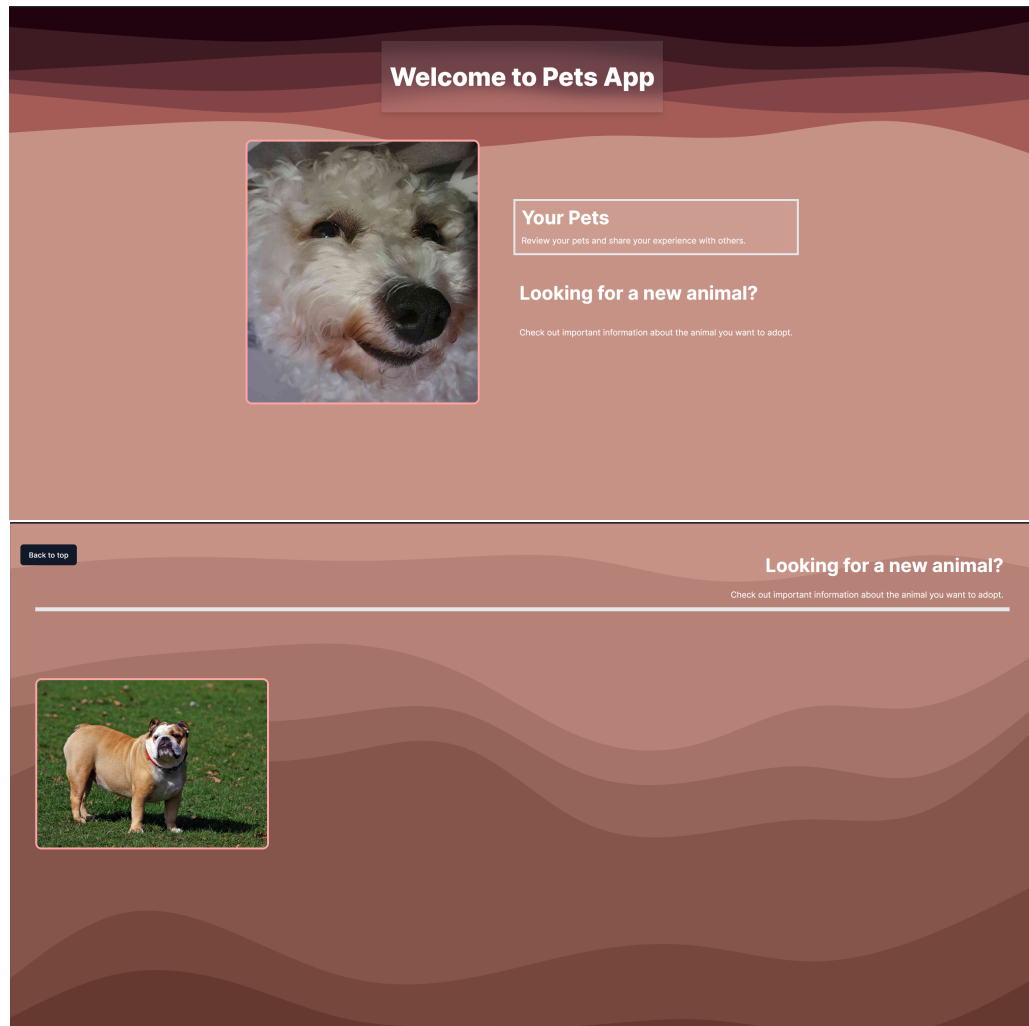
- Deployment

– After the previous steps are completed, the sprint is typically ready to be deployed and the author can ship the project to users and await feedback.

• Review And Feedback

– After deploying the sprint. The author can ask for feedback and any remaining issues which can be then worked on and resolved in the next sprint.

6.2   Design

The author has drawn these wireframes as a template for the actual project.

After looking at the wireframes as a reference guide, this is what the user interface currently looks like:
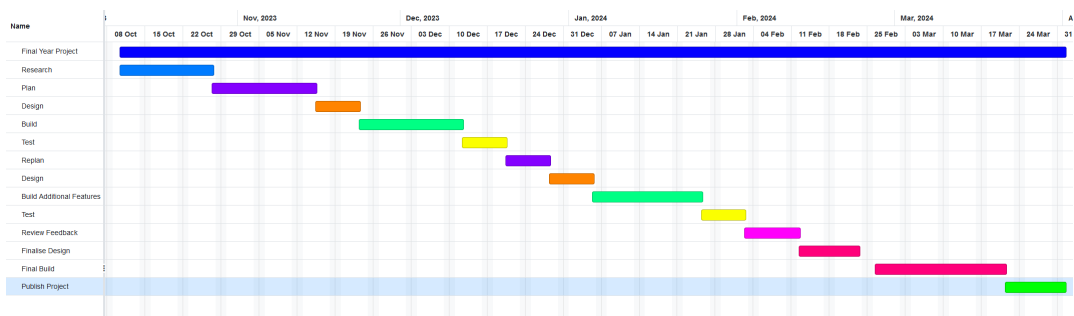
Chapter 7

Conclusion

In conclusion, the author plans to finish the project and allow users to better take care
of their pets.

Chapter 8

Project Plan

The author intends to follow the Agile SDLC which is reflected in the Gannt chart. The author will first research the relevant topics, plan, and design the project during the first 4 weeks. They will then begin building the first prototype of the project over the next two weeks and test for bugs and remaining issues in the last week of the first sprint.

After completing the first prototype, the author has allocated themselves 2 weeks to plan and redesign potential issues that might have appeared as well as implement additional features. Afterwards they will use the next two weeks to continue implementing new features into the app and they will proceed to test it again. During this test, the author will ask pet owners and people looking to adopt an animal to try and use the app and give the author feedback. The author will then review the feedback and begin to finalize the design, tweaking minor details that might have been brought to their attention. During the final weeks the author will build and publish the project so it could be live for everyone to use.

Chapter 9

Project Diaries

The first meeting we had mainly discussed my idea about pets and fleshing it out. Although I believed I had good idea it was too abstract and lacked any structure. To resolve this issue we dove deeper into the idea and narrowed it down to a webapp for pet owners who could use the app to take better care of their companions. My supervisor also gave me suggestions to use a framework or language i haven't used before.

13-10-2023

9.1 Meeting 2

During the second meeting we focused on getting more documentation done as it was falling behind due to other modules. The hope was to have the introduction finished by the next meeting. Also, for the project i discovered typescript and Next.js which i could utilize to create my web application.

20-10-2023

9.2 Meeting 3

During this meeting we focused on fleshing out the documentation even more as it was still falling behind. I also still needed a concrete idea for my project as it was still somewhat abstract. The idea I came up with was to allow pet owners to add their pet and be able to monitor their diet and common health problems.

27-10-2023

9.3   Meeting 4

The fourth meeting we had mainly focused on continuing my work and showing the progress during the next meeting.

10-11-2023

9.4   Meeting 5

During this week I again just continued on our progress, particularly focusing on the documentation as it was due in the coming weeks.

24-11-2023

9.5   Meeting 6

During this meeting, I was advised that my project was subpar. To try and resolve this issue I put other modules aside in an attempt to allocate more time for the documentation.

14-12-2023

9.6   Meeting 7

This meeting consisted of getting the powerpoint ready to present on teams as the presentation was straight after.