Software Requirements Specification
for
Pet Care

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Chapter 1

Introduction

1.1 Purpose

The Purpose is to provide health and medical care for animals, specially for pets. The bigger idea is to provide health and medical assistant for all the pet and farming animals, but in this project we are only focusing on cats and dogs specially because these two are the most kept animal anywhere in the world including Bangladesh. So, the main purpose will be to serve and satisfy the pet owners.

1.2 Intended Audience

The foremost intended audience for this particular project is the house pet owners. Then also the businesses which is related to pets and the small pet businessmen and also animal shelters.Another key audience will be the veterinary related personals.

1.3 Intended Use

Since the program we are going to create is basically for the aid that to be served for the pet, so is the intended use of the SRS going to be. Generally, it will illustrate the scenario of the needs that the user may feel for their pet. While taking care of such animals, there are always incidents that the owner of the pet usually faces. Because unlike the human, the pets are the ones who cant express their own expression. Be it happiness, sadness or even any diseases. This is where our intended use of the program is going to operate.

Our build program will target those needs of the user, ask them if they feel comfortable with the current behavior of their loving pets and if they need any assistant based on the symptoms that their pets showing. Besides that, the owner or the user can also write some reviews so that the user who has not yet gone through the program, can also get a very basic idea of the intended use of the program.

1.4 Product Scope

Talking about the term Product Scope, there comes the part to clarify what our created program is going to work as product and how can it be addressed as scope. Product scope can usually be defined as the features or characteristics of a product itself. Whether considering design, function or component parts, the key point is that product scope refers to the actual tangible product. In case of our built program, there will be certain criteria of product scope that would address different queries of the product.

Goal: The main goal of the product is to ensure the care for the pets through the assistance and support given the program, and mostly, to continue the update of the program.

Benefit: Even though the out sight scenario may look like just medicine care, but there are more than that in here. Following the guidelines, along with the owner of the pets, the ones behind the creation of this program also getting benefited.

Scenario: Basically our system software will be made based on the features we have discovered following the various statistics and criteria e.g pets behavior, symptoms of the diseases etc. And all these will be here as different user friendly features.

Future Iterations: Since everything around us getting updated day by day, so there is high possibility that the product we are going to create will also be updated. We may update the product by updating the newly discovered symptoms, newly produced medicines and most importantly, newly behavioral numeric statistics.

1.5 Risk Definition

Organizational problems may have adverse effects on this project outcomes. Time management is very important. If management failure occurs then this project will not be finished on time so it is a risk for this project. If proper management is provided by the developer team then this risk will easily overcome possible.

It is challenging to fulfill all the user requirement for this project. So, this is considered as another risk. In this project there are some complex methods such as diagnosis pet problems. For implementation this kind of methods developer team need very skillful programmers. Programmer with lack of skill will risk for this project. Skillful programmer may solve this kind of problem.

Chapter 2

Overall Description

2.1 User Classes and Characteristics

Generally, two types of people will interest to use this program. First type are those people who have pets and a computer. They are able to use this program on computer and diagnose the disease of their pet and also have treatment.

Second type are those people who are vet or study vet science and also have computer. They use this program to ensure their diagnosis and it will help in their work.

User Characteristics:

(1) Users on windows platform and java environment

(2) Users on Linux platform and java environment

2.2 User Needs

The main purpose of this project is to serve peoples who own pets such as cats, dogs etc. This program will fulfil all their needs. This project has 10 most useful features which always needed for users.

If user has a pet which is a cat then they can easily select cat from the tab of the project and this system will be provided all cat features so it is a basic need for users who will use this program. By using this program users are able to enter their pet data so that they can ensure their diagnosis based on their provided data it also an essential need of a user.

This system also provides the prescriptions of medicine and suggest the treatment of disease which is suffering by his/her pet. The prescriptions and suggestions are also most important need of a user. Users can also buy medicine by using his system. So, need of buy medicine is also provided by this system for users.

Users can also review this system. After using this system if user is satisfied/dissatisfied they can review this system by using review options

2.3 Operating Environment

Operating Environment Hardware:

CPU: At least Dual Core 3.6MHz

Storage: Minimum 500 MB

RAM: 1 GB

Operating Environment Software:

Operating Platforms of PC : Windows or Linux

2.4 Constraints

Constraints: When it comes to constraints, it is always those ideas that shape the whole scenario of the project. Usually, in Computer Science, Constraints denote to the conditions of both the problem and the solution. Also, Constraints vary from the perspective of User to the perspective of the created program. Constraints restrict options of design, behavior, appearance or operation. They become requirements due to factors outside the normal problem domain. Software Constraints describe how the product operates inside various circumstances and limit the options designers have if building the product. This section specifies design constraints imposed by other standards, hardware limitations, communication interface limitations, etc. There are a number of attributes of software that can serve as requirements.

User Interface Constraints: User Interface Constraints consist of 2 parts: the logical characteristics of each interface between the software product and its users and all the aspects of customizing (preferences) the interface with the person who is using the system.

In case of the Pet Care situation, there might be some lack of communications due to the differences between the humans and animal. And this simply leads to the lack of communication between the User and the Software product due to lack of information.

Hardware Constraints: Hardware Constraints include configuration characteristics, what devices are to be supported, how they are to be supported, and communication protocols, any applicable characteristics or limits on primary and secondary memory or memory storage, any hardware interfaces that are to be supported by the software, including logical structure, physical addresses, expected behavior, etc

There may be some cases where the owner of the pets are having problem, but not able to deal with it due to the shortage of the enough hardware support.

Software Constraints: Software Constraints are assumptions that particular pieces of software will be available and are necessary to the functioning of the product.

As for consideration,

- -If the Owner of the pets are flexible with our created program.
- - If the Users are having the enough system requirements in their computer system.
- -If the program we are going to create having enough information about the constraints.

Data management constraints: This is something that must need to be followed for a good outcome of the project.

This one includes:

- -Whether the owner of the pet are financially able to purchase our product or services.
- - Whether we are able to determine the needed financial support for our software development.
- -Whether we are estimating enough statistics and data to forecast a better outcome of the project.

Operational Constraints: Along with other criteria, this is the type of constraints where the project members are even more focused. Operational Constraints determine:

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- The communication among the project members are well maintained.
- - The members are well aware of the to-do, doing and done parts.
- - The memory space optimization of the software.
- - Programming Language selection.
- -Safety and security of the project.
- -The time complexity of the required solution.
- - The information about the throughput of the software.

2.5 Assumptions

Coming to the assumptions, it will summarize the whole project. As our topic is about pet care, so our developed software will be mostly determined to it. And here in this part, the approximate estimation of the project will be discussed. This will emphasize on the following criteria.

Collective Information and Data: The program will be collecting the data from the user based on their experiences. Different type of experience from different user will be the assets about where to continue and where to halt. Also, these data will be used to update our software if we need in future.

Analyzing the Data: After having the information about the pets, we will analyze those data to find out the solutions. Any complicated data from the user that our developed program finds, will be analyzed based on the constraints.

Understanding the User Demand: Since to serve the user is one of our key objective, so our project will emphasize mostly about the user demand, their comfortable services and their financial ability.

Rearranging the features: Based on the finalization of the information, our project will rearrange different features on chronological order to make things less complicated. Features will be directed solely based on the purpose to solve the problem.

Implementation of the features: Having all the features being arranged, very next task will be to implement the features we are having in SRS. Likewise, the database of the user may change, so may the list of the features.

Maintaining the constraints: While doing so and so to improve the project, maintaining the constraints will be the concern as well. Amongst the different constraints, a good communication between the developer and the user must need to be maintained.

Accountability: Accountability is what makes any task sophisticated than ever before. Accountability from both the developer and the user will be ensured so that the whole process can operate very smoothly and with good integrity.

Chapter 3

Requirements

3.1 Functional Requirements

Functional requirements of any project is one of the most crucial part that the system developer get benefited. Functional requirements help the SRS to work on some specific way with even more enthusiasm and discipline. Having asserted that, there are some criteria that must need to be followed. Along with such, here are some approximate requirements that are going to be used.

User Information: As a user, he or she will be able to get the services from the system about the pet. Like every other user, there are variations in the user level as well.

Pet Information: The differences among the pet are inevitable. There may be variation on different levels as follows:

Color: Different type of pet will have different color.

Age: Age differences also make some differences in showing different symptoms.

Environment: The environment a pet is taken care off, also tells a lot about the pet.

Previous disease: If or not, the pet had any disease before.

Type of Food: Type of food the pet is given, also has some issues with the pet.

Pet photo: For the advantages of the system update, there may be a photo of the pet , that to be added in the system.

Symptoms: Watching the symptoms, the system will get to detect what might be the possible diseases of the pet. There may be some symptoms like fever, cough or something else which is entirely new to the owner.

Behavior: Like every other animal, there is some behavioral issues with the pet as well. And those behavioral issues will help the program to update the possible solutions.

Detection of Symptoms /Diagnostic: Our developed system will firstly check the symptoms based on the user info. Then again, it search within its own information which were taken from previous cases.

Prescription/Treatement: Based on the symptoms, constraints and the conditions, there will be some prescribed medicine for the pet. The Owner of the pet will also have access to the desired vaccine if they ever need.

Reviews: Watching the reviews, The user and the system developer will be able to insert more info to update the iteration process in near future. Also, the reviews will be a trustworthy medium for those user who need to check how our system usually works.

The application should be able to identify the disease based on the symptoms as the animals have fewer diseases and specific disease symptoms. It must provide the medicines based on the detection of disease which

was based by the symptoms. The application should be able to tell the related vaccines and how and when to give them. The application should have a feature where user can ask/chat with a Vet.

3.2 Non Functional Requirements

Ease of use

- User should understand easily how to use the system

Performance Requirements

- System must take one user input at a time
- No Interaction must take longer than 2 seconds to respond

Security Requirements

- No user should be able to see any other user's information

Error Handling

- Any kind of expected and unexpected errors must be handled.

Appendices

Appendix A

Glossary