Software Requirements Specification

for

Veterinary Clinic

Version 2.0 approved

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Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Eng. Ahmed Kamal | 13-3-2023 | The functional requirements weren’t written correctly. | 1.0 |

# Introduction

## Purpose

This document provides detailed functional and non-functional requirements that facilitate logging in and out of the system (website), can reset password, enter and view client data and fill in symptoms, book and check appointments (including home visits), notify clients and their vet for verified appointments, entering, displaying and arranging the animal status record, entering and updating staff’s data, calculating the salaries of the staff by registering a sales and purchase receipt on the system and printing the receipt for each customer, which facilitates the process of calculating profits, calculating offers for customers, storing inventory information, and owning a portfolio via the Internet to manage all the accounts that the clinic needs, and the clinic also has an online marketing page, in which all available jobs within the clinic are displayed. Check for inventory and notify HR to send notification for suppliers and maintenance, managing all accounts needed by clinic.

## Product Scope

* The customer service is considered the most important department of the clinic, as it performs many operations, including the booking process, buying food/medications, follow up and home visitations.
* The vet has the access to the animals’ information and the ability to check and confirm the appointments, and the follow ups.
* The owner deals with the suppliers, finance, maintenance, and staff.

## References

- All information has been collected from an interview with Dr. Asmaa at SKYLINE VET CLINIC.

- <https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database>

- https://enkonix.com/blog/functional-requirements-vs-non-functional/

- <https://www.indeed.com/career-advice/career-development/non-functional-requirements-examples>

- <https://docs.oracle.com/cd/E28385_01/en/E28377/html/STA102_Planning_Install_PreInst.5.5.htm>

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- <https://www.altexsoft.com/blog/non-functional-requirements/#:~:text=Non%2Dfunctional%20requirements%20or%20NFRs,reliability%2C%20data%20integrity%2C%20etc>

- <https://www.uptech.team/blog/non-functional-requirements>

# Overall Description

## Product Functions

This system allows multiple functions, such as: logging in (sign in and sign up) to the customer's account, logging out of it, resetting the password, entering animal’s data (breed, gender, coat color, species, pet name, etc. ... ), booking appointments, verifies appointments, enables filling in symptoms, sending notifications to both clients and the vet after the verification of the appointments, conducting online follow-ups, enabling the client to purchase pet food, supplies and necessary medicine, displaying, updating and arranging animal data, displaying and updating staff’s data, specifying preferred suppliers, managing inventory, notifying the owner of the date of restocking, calculating offers for customers, managing all accounts that the clinic needs, registering accounts on the system, printing purchases and sales invoices for customers to facilitate the process of calculating profits for the clinic and ensuring the right of the customer. The clinic also provides internet marketing by creating an application to display all jobs available in the clinic.

## User Classes and Characteristics

- Customers, regular people.

- Vets that work at the clinic.

- Owner.

## Operating Environment

-The system is a website, named My Vet Clinic, which works on Google Chrome version 110.0.5481.180 (Official Build) (64-bit), and Firefox version 110.0.1 (64-bit).

-The minimum hardware requirements for a server are an Intel Xeon 5600 Series, a 16 GB RAM, 1 TB Dual HDD drives and a Gigabit Ethernet.

## Assumptions and Dependencies

The major issue is the internet connection, as it is the main factor that operates this website. A bad connection could make the website fail to load. This issue can’t be solved as it is from the company providing this service.

# System Functions

## Sign up

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR001 | If the customer visits the website for the first time, they must **sign up** by entering their mail and create a password. Then they must enter their name and mobile number. The user should add a password. | Must | None |

## Sign in

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR002 | If the customer already has an account, they can **sign in** by entering the password and email. | Must | None |

## Log out

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR003 | If the customer decides to end his dealings with the clinic or the vet, The customer will log out. | Must | None |

## Reset password

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR004 | Enables the user to reset the password in case he forgot it or wanted to change it. | Must | None |

## Handle Customers’ data

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR005 | The customer is required to enter all the **information** regarding their animal (Name, species, breed, sex, date of birth, coat color and type and vaccination history) if that was the first time for the animal to visit the clinic. | Must | None |

## Booking an appointment

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR006 | The customer can choose a **time** for their appointment (The hours/time displayed is the free time for the vet). After selecting it, the HR should verify the appointment. | Must | None |
| FR007 | The doctor can also choose a time for future follow ups and they should also be verified by the HR. | Must | None |

## Fill symptoms

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR008 | The customer can fill out the visual **symptoms** that appear on their animal. | Must | Helps the vet in expecting the case before the visit. |

## Visit Home

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR009 | The customer can have the option for **home visits.** It is desirable to choose it in emergency cases. | Must | The price of the examination depends on the distance. |

## Manage inventory

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR010 | Checks the quantities of the products by taking the purchased products’ information from the secretary and updates its data so that when the products reach their minimum limit, the system sends a notification to the suppliers to restock. | Must | None |

## Check for requested appointments

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR011 | The HR **verifies** the requested appointments. | Must | None |

## Send Notifications

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR012 | After the verification of the appointment, 2 **notifications** must be sent: one for the **customer** and the other for the **vet**. | Must | None |
| FR013 | A **notification** is sent to the **suppliers** to send specific products once they reach their minimum limit in the inventory. | Must | None |
| FR014 | The **follow up** time is decided by the vet but verified by the HR, and then the system sends a notification for the customer. | Should | None |

## Manage case history

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR015 | It’s **created** if it was the animal’s first visit. | Must | None |
| FR016 | Every time the animal visits the clinic, their **case history** is **updated**. | Must | None |
| FR017 | The **case history** is displayed to the vet in order of **the newest** to the **oldest** case. | Must | None |
| FR018 | The **case history** should be accessed by the customer. | Must | None |

## Order the case history list

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR019 | The **case history** is ordered from **the newest** to the **oldest** case. | Must | None |

## Send Feedback

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR020 | The customer gives **feedback** regarding the cleanliness of the clinic, the health of the animal after the appointment and the treatment of the staff. | Should | Optional, as the customer can choose not to send feedback. |

## Purchasing online

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR021 | **Drugs** are displayed for the customer to buy. | Must | None |
| FR022 | **Pet food** and **pet supplies** are also displayed for the customers. | Must | None |

## Identify staff’s data

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR023 | The staff’s **schedules** are made by the HR, considering the staffs’ work hours, workdays and holidays then uploaded to the website for the staff to view. | Must | None |
| FR024 | The HR is the only person who’s allowed to edit the staff’s **schedules. T**he edits should be viewed and saved. | Must | None |
| FR025 | The staff gets a 15% yearly raise in their salary | Must | New salary = old salary + old salary × 15 % |

## Managing online payment

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR026 | The online purchasing the payment can be done by using **cash** where the customer gets an online bill that he must use to receive the order,the customer needs to pick up the things they bought, as they would be giving the money to the secretary | Should | None |
| FR027 | For the **Credit Card,** you will be prompted to choose how you want to pay. Other options could include debit card, PayPal then you’ll enter the 16-digit number, the expiration date and the 3 digit numbers found on the back. Then finally, confirm your payment. | Should | None |

## Managing offline payment

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR028 | The secretary adds the information of the offline purchase in the inventory. | Must | None |

## Offers

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR029 | Regular customers get a 10% discount for any non-medical services if it reached 800+ L.E. for the online purchases. | Should | (n\*10)/100 where “n” is the spent money |

## Create a purchase receipt

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR030 | The secretary creates a purchase receipt for each customer, in which the supplies that were purchased, the prices of the supplies, product brands, the date of purchase, the discounts that were added, and the customer’s data are added, and the full cost is calculated. | Must | Two copies of the invoice are printed, one for the customer and another copy to be placed on the clinic system to calculate the monthly income. |

## Take out a payment receipt

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR031 | The secretary prints a receipt for the buyer by taking some data such as the name, phone number, card number, and calculating the full cost, and then puts it on the system and prints it so that the system can keep a backup copy. | Must | The receipt is printed online or directly to the customer. In both cases, a copy is kept on the system. |

## Create a sales receipt

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR032 | A receipt that contains a unique number for each customer called UUID, in which the price of the purchases is determined at the price of the tax added to it, and all the information related to the customer is placed in it and the valid period for retrieving the purchases is specified. | Must | None |

## Calculate customer price

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR033 | Examination in the clinic depends on the medical tools used in addition to the price of the basic examination | Must | The clinical examination costs 90 L.E. |
| FR034 | The price of a home examination depends on the location’s distance from the clinic, the time it takes, and the medical tools used | Must | The home service is decided by the vet. |

## Calculate the customer service

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR035 | The doctor adds the diagnostic services’ to the system then the secretary calculates the total cost. | Must | The price varies depending on the device/tools that are used. |

## Calculate net profits

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments |
| FR036 | The system calculates the net profit then sends it to the government to send the taxes. | Must | None |

# Nonfunctional Requirements

## Capacity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR001 | How well the service performs these functions, networks. | Must | None | Can have 500 user at a time |

## Reliability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR002 | Specifies how likely the system or its element would run without a failure for a given period of time under predefined conditions. | Must | None |  |

## Compatibility

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR003 | It must be ensured that the website is properly working across different browsers, devices, operating systems, networks, and hardware. | Must | None |  |

## Speed and performance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR004 | What are the required response times, benchmark specifications, and other attributes related to performance? How fast does the system provide results, and how will the performance change with higher workloads? | Must | None | Normal Response time is 3 seconds.  In case of higher workloads  It becomes 6 to 10 seconds. |

## Security

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR005 | How much time and effort does it take to break into the system, and how can you mitigate these exposures? | Must | None |  |
| NFR006 | The system must be fully accessible to specific users only and protect the system from any attack or theft, and thus protect customers' information and private clinic information. | Must | None |  |

## Usability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR007 | **Learnability**. How fast is it for users to complete the main actions once they see the interface?  **Efficiency**. How quickly can users reach their goals?  **Memorability**. Can users return to the interface after some time and start efficiently working with it right away?  **Errors**. How often do users make mistakes?  **Satisfaction**. Is the design pleasant to use? | Should | None | Takes few minutes to fully understand how to use the system. |
| NFR008 | The system should be easy to use and not complex so that a user with basics in computer skills could use it efficiently (Clear and easy words are chosen for the user to be able to understand what is required). | Must | None |  |
| NFR009 | This system supports the Auto complete feature to avoid the user repeating the password and Gmail each time he registers. It is designed to help people with disabilities use technology more easily. | Should | None |  |

## Portability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR010 | The list of supported operating systems and their versions. Network specifics, the list of supported browsers and their versions. Devices and other hardware requirements. | Should | None | Available on all the commonly used browsers and operating systems. |

## Availability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Code** | Requirements statement | Must/should | Comments | Unit |
| NFR011 | How often does the system experience critical failures, how much time does it take to fix the issue when it arises, and how is user availability time compared to downtime? | Should | Takes few minutes to fix any appeared issues. |  |