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# **Software Requirements Specification**

**for**

## **Veterinary Clinic**

**Version 2.0 approved**

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**March, 13<sup>th</sup> 2023**

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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

# 1. Introduction

## 1.1 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.

## 1.2 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.

## 1.3 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](https://docs.oracle.com/cd/E28385_01/en/E28377/html/STA102_Planning_Install_PreInst.5.5.htm)
- <https://albadrsales.com/ar/%D8%A8%D8%B1%D9%86%D8%A7%D9%85%D8%AC-%D9%83%D8%A7%D8%B4%D9%8A%D8%B1-%D9%84%D9%84%D9%85%D8%B3%D8%AA%D9%84%D8%B2%D9%85%D8%A7%D8%AA-%D8%A7%D9%84%D8%B7%D8%A8%D9%8A%D8%A9/>
- <https://www.altexsoft.com/blog/non-functional-requirements/#:~:text=Non%2Dfunctional%20requirements%20or%20NFRs,relability%2C%20data%20integrity%2C%20etc>
- <https://www.uptech.team/blog/non-functional-requirements>

## 2. Overall Description

### 2.1 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.

### 2.2 User Classes and Characteristics

- Customers, regular people.
- Vets that work at the clinic.
- Owner.

### 2.3 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.

### 2.4 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.

## 3. System Functions

### 3.1 Sign up

Code	Requirements statement	Must/should	Comments
FR001	If the customer visits the website for the first time, they must <b>sign up</b> by entering their mail and create a password. Then they must enter their	Must	None

	name and mobile number. The user should add a password that he can remember, and in case of forgetting, there is an option to reset the password.		
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### 3.2 Sign in

Code	Requirements statement	Must/should	Comments
FR002	If the customer already has an account, they can <b>sign in</b> by entering the password and email. They must both be right, or the Auto complete function will fill them in the fields.	Must	None

### 3.3 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
FR004	After a certain period, the account will be automatically deleted.	Must	None

### 3.4 Reset password

Code	Requirements statement	Must/should	Comments
FR005	Enables the user to reset the password in case he forgot it or wanted to change it.	Must	None

### 3.5 Handle Customers' data

Code	Requirements statement	Must/should	Comments
FR006	Once the customer signs up / signs in they are required to enter all the <b>information</b> regarding their animal	Must	None

	(Name, species, breed, sex, date of birth, coat color and type and vaccination history) (if this was the first time for the animal to visit the clinic).		
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### 3.6 Booking an appointment

Code	Requirements statement	Must/should	Comments
FR007	The customer can choose a <b>time</b> for their appointment (The hours/time displayed is the free time for the vet). After selecting it, the user will wait for the confirmation of the reservation process by the doctor.	Must	None

### 3.7 Fill symptoms

Code	Requirements statement	Must/should	Comments
FR008	The customer can fill out the visual <b>symptoms</b> that appear on their animal to help the vet in expecting the case before the visit.	Must	None

### 3.8 Visit Home

Code	Requirements statement	Must/should	Comments
FR009	The customer can have the option for <b>home visits</b> . It is desirable to choose it in emergency cases (The price of the examination depends on the distance).	Must	None

### 3.9 Manage inventory

Code	Requirements statement	Must/should	Comments
FR010	Help in preserving all tools, equipment, pet food and medical	Must	None

	supplies in an appropriate manner so that they are not damaged.		
FR011	It is considered one of the most important resources that clinics care about because it represents frozen funds.	Must	None
FR012	The function checks the quantities (food, drugs) by taking information from the secretary about the consumed quantities then it updates its data so that when the quantities reach its minimum limit the system sends a warning notification to the HR	Must	None

### 3.10 Check for requested appointments

Code	Requirements statement	Must/should	Comments
FR013	The HR <b>verifies</b> the chosen time of the requested appointments. Also depends on the doctor then the secretary keeps a record for it.	Must	None

### 3.11 Send Notifications

Code	Requirements statement	Must/should	Comments
FR014	After the verification of the appointment, 2 <b>notifications</b> must be sent: one for the <b>customer</b> and the other for the <b>vet</b> . Whether it was a message, an SMS, an email.	Must	None
FR015	For suppliers restocking at the end of each working day the system must check their inventory to update the consumed and expired supplies to see if they needed restocking (it reached a certain limit) then it sends a notification to the HR. Then, HR send notification to the suppliers to	Must	None

	restock the inventory (make up for stock shortage)		
FR016	The HR must receive a notification every 3 to 6 months for the <b>maintenance</b> . The time of the notification varies depending on the devices.	Must	None
FR017	The <b>follow up</b> time is decided by the vet, and then the system sends a notification for the customer.	Should	None

### 3.12 Manage case history

Code	Requirements statement	Must/should	Comments
FR018	It's <b>created</b> if it was the animal's first visit.	Must	None
FR019	Every time the animal visits the clinic, their <b>case history</b> (illness history) is <b>updated</b> .	Must	None
FR020	The <b>case history</b> is displayed to the vet in order of <b>the newest</b> to the <b>oldest</b> case.	Must	None

### 3.13 Order the case history list

Code	Requirements statement	Must/should	Comments
FR021	The <b>case history</b> is in the order of <b>the newest</b> to the <b>oldest</b> case.	Must	None

### 3.14 Send Feedback

Code	Requirements statement	Must/should	Comments
FR022	The customer gives <b>feedback</b> regarding the cleanliness of the clinic, the health of the animal after the appointment and the treatment of the staff.	Should	None



### 3.15 Purchasing online

Code	Requirements statement	Must/should	Comments
FR023	<b>Drugs</b> are displayed for the customer to buy.	Must	None
FR024	<b>Pet food</b> and <b>supplies</b> are also displayed for the customers.	Must	None

### 3.16 Identify staff's data

Code	Requirements statement	Must/should	Comments
FR025	The staff's <b>schedules</b> are made by the HR, considering the staffs' work hours, workdays and holidays then uploaded to the website for the staff.	Must	None
FR026	HR and the owner are the only people allowed to edit the staff's <b>schedules</b> , the edits will be viewed and saved.	Must	None
FR027	The staff gets a 15% yearly raise in their salary	Must	New salary = old salary + old salary × 15 %

### 3.17 Managing online payment

Code	Requirements statement	Must/should	Comments
FR028	The website has an <b>online wallet</b> that can be charged when needed using your VISA or cash money you paid at the clinic, the money is automatically transferred from/to the Wallet.	Should	None
FR029	For the online purchasing the payment can be done by using <b>cash</b> 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
FR030	In case of using <b>Vodafone Cash</b> , make sure you follow the instructions written on <b>Vodafone Egypt</b> site, and make sure to remember the pin number.	Should	None
FR031	For the <b>Credit Card</b> , you will be prompted to choose how you want to	Should	None

	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.		
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### 3.18 Managing offline payment

Code	Requirements statement	Must/should	Comments
FR032	<b>Cash</b> payment can be used in the clinic. The payment details will be discussed with the secretary.	Should	None
FR033	In case of paying using a <b>visa</b> in the clinic it must be activated and have 150+ L.E the customer should finish the payment details with the secretary	Should	None

### 3.19 Offers

Code	Requirements statement	Must/should	Comments
FR034	Regular customers get a 10% discount for any non-medical services if it reached 800+ L.E.	Should	$(n*10)/100$ where "n" is the spent money

### 3.20 Marketing

Code	Requirements statement	Must/should	Comments
FR035	The HR does the marketing for the clinic by creating an application that displays video clips, photographs, and good designs, in which all the services available in this place are advertised, and it also contains information about the doctor's experience.	Must	A specific duration is specified for the advertisement, which does not take more than 12 minutes

### 3.21 Create a purchase receipt

Code	Requirements statement	Must/should	Comments
FR036	The clinic 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. This is calculated either by secretary or by barcode.	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.

### 3.22 Take out a payment receipt

Code	Requirements statement	Must/should	Comments
FR037	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.

### 3.23 Create a sales receipt

Code	Requirements statement	Must/should	Comments
FR038	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

### 3.24 Calculate customer price

Code	Requirements statement	Must/should	Comments
FR039	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.
FR040	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.

### 3.25 Calculate the customer service

Code	Requirements statement	Must/should	Comments
FR041	The doctor add the diagnostic services' to the system then the system send notification to HR to calculate the total cost.	Must	The price varies depending on the device/tools that are used.

### 3.26 Calculate the external service

Code	Requirements statement	Must/should	Comments
FR042	HR is looking for a cleaning company suitable for the price specified for the clinic system, and the notification is sent every week in order to clean the clinic, and the cost is subtracted from the monthly income	Must	None
FR043	The maintenance team visit every 3 months to check the machine and fix the machines that need so, and the cost is subtracted from the clinic's income.	Must	None

### 3.27 Calculate taxes

Code	Requirements statement	Must/should	Comments
FR044	The government sends a representative to calculate taxes every six months to check the latest update of the clinic, and the representative calculates taxes through the annual net profit through the Talent program.	Must	When adding any device or any component not previously agreed upon, taxes will be increased.

### 3.28 Calculate net profits

Code	Requirements statement	Must/should	Comments
FR045	HR subtracts the suppliers account, employee salaries cleaners and maintenance workers from the monthly income and the bank account income to calculate the net profit.	Must	Profit calculation differs according to the method

## 4. Nonfunctional Requirements

### 4.1 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

### 4.2 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	

### 4.3 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	

### 4.4 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.

### 4.5 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	

## 4.6 Usability

Code	Requirements statement	Must/should	Comments	Unit
NFR007	<b>Learnability.</b> How fast is it for users to complete the main actions once they see the interface? <b>Efficiency.</b> How quickly can users reach their goals? <b>Memorability.</b> Can users return to the interface after some time and start efficiently working with it right away? <b>Errors.</b> How often do users make mistakes? <b>Satisfaction.</b> 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	

## 4.7 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.

## 4.8 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.	