

# Software Requirement Specification

## CRATE

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Version [1.5]

**Presented To: Dr. Mohammed Ramadan**

**Submitted By:**

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# 1.0 Introduction

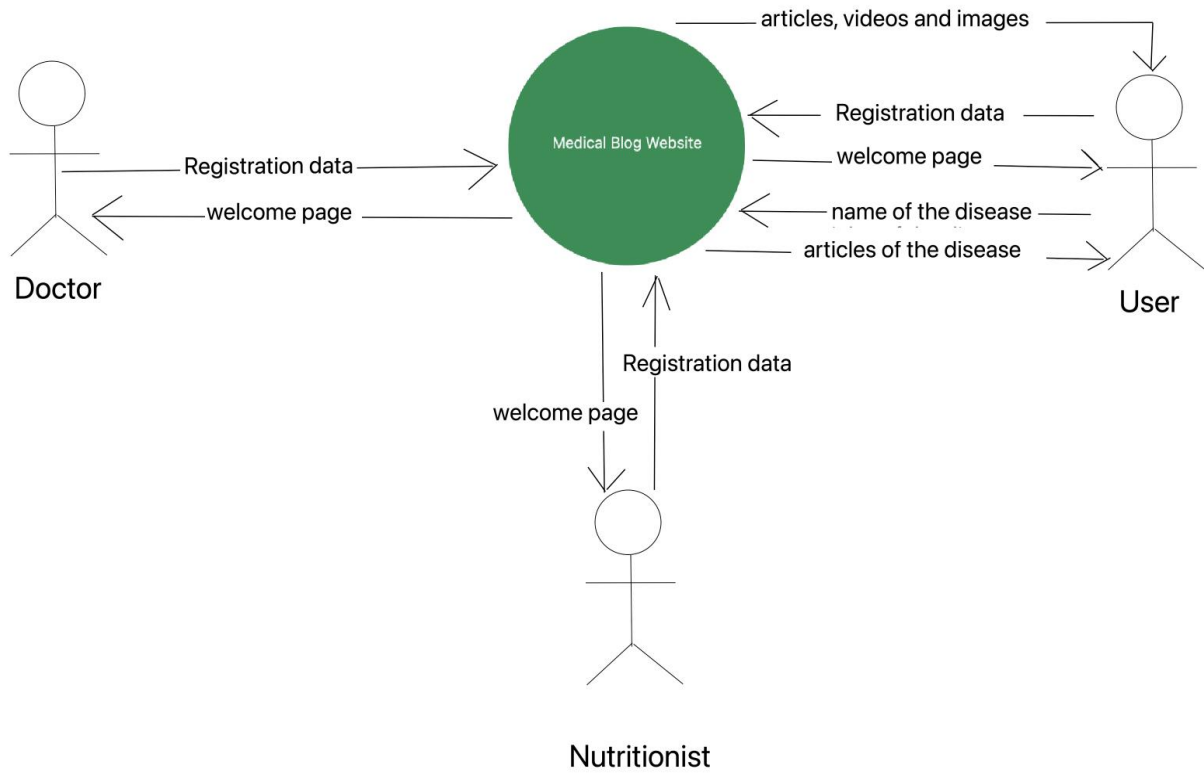
Finding reliable information and support for chronic conditions can be challenging, especially when resources are scattered across various platforms and may be issued by people who are not specialists in this field. Our goal is to create a comprehensive website that connects individuals living with chronic conditions to relevant resources and healthcare providers.

The potential audience for this website includes individuals living with chronic conditions such as diabetes, arthritis, asthma, heart disease, and more, healthcare providers, nutritionists and dieticians, fitness and physical activity experts and medical researchers and experts. Our platform aims to provide accessible and informative content tailored to each chronic condition.

**Purpose:** The purpose of the chronic conditions' website is to provide individuals living with chronic health conditions access to reliable information and resources to effectively manage their health and improve their quality of life.

**Goal:** To enhance the overall user experience and support for individuals with chronic conditions by providing a user-centric platform with access to resources, healthcare professionals resulting in improved health management, increased knowledge, and enhanced well-being.

## 1.2 Scope



website

## 3.0 Requirements

As a User I want to:

- Create account (Sign Up)
- Login
- Access disease information
- Access Nutritional information

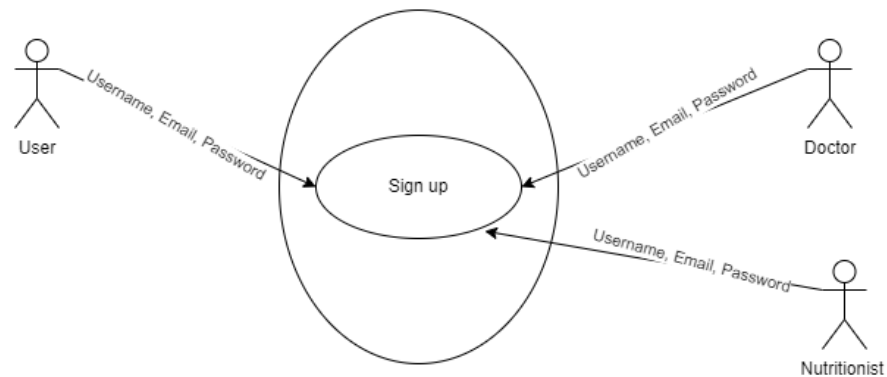
As a Doctor I want to:

- Create account (Sign Up)
- Login

As a Nutritionist I want to:

- Create account (Sign Up)
- Login

## 3.1 Sign up



**Use Case:**

**Name:** Sign up

**Participating Actor:** User, Doctor, Nutritionist

**Entry conditions:** Website is opened by browser

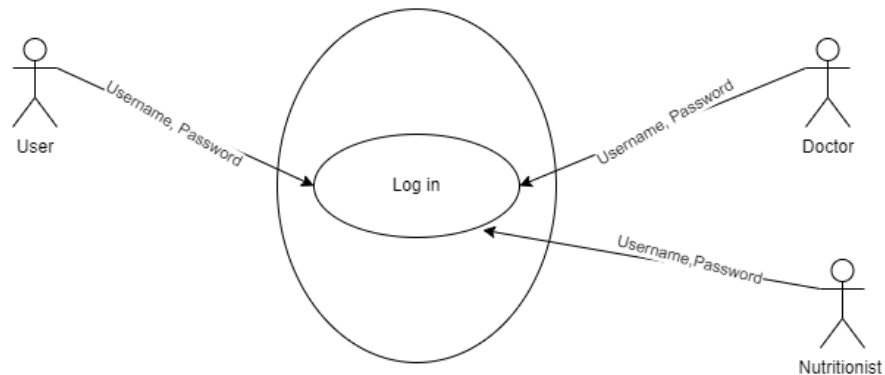
**Exit conditions:** Account is created

**Flow of Events:**

- 1-User enters his / her data
- 2-The data is validated
- 3-New account is created

**Special Requirements:** if the data is invalid display error message and try again.

## 3.2 Log in



### Use case:

**Name:** Login

**Participating Actor:** User

**Entry conditions:** Account exists

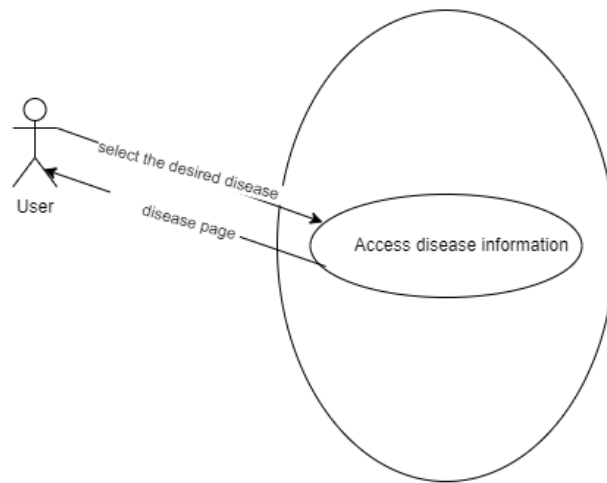
**Exit conditions:** User access his/her account

### Flow of Events:

- 1-User enters his/her information
- 2-The information is validated
- 3-User sent to main page

**Special Requirements:** if the account is invalid display an error message and try again.

### 3.3 Access disease information



**Use case:**

**Name:** Access disease information

**Participating Actor:** User

**Entry conditions:** User is logged in to his/her account

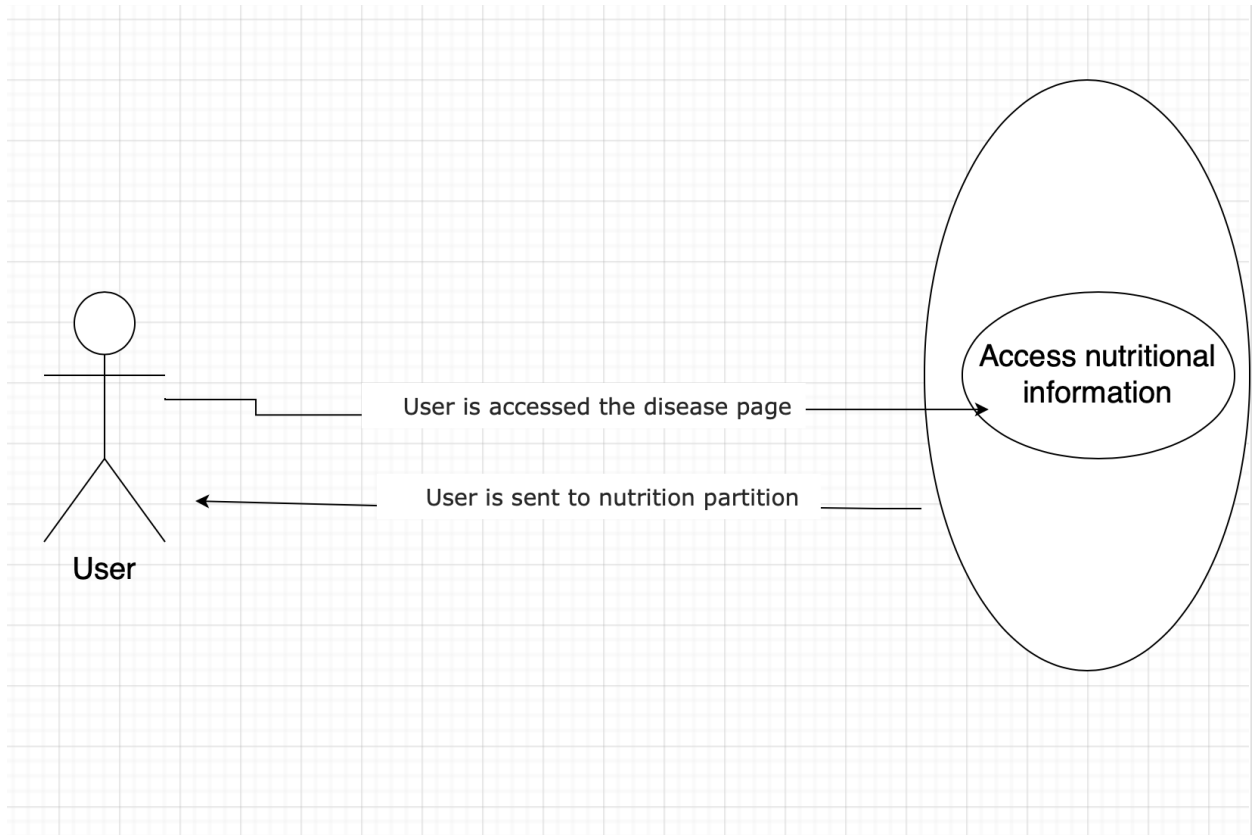
**Exit conditions:** User obtained the disease information

**Flow of Events:**

- 1-User logged in to account
- 2-select the desired disease from the list
- 3-User sent to disease page

**Special Requirements:** No special conditions

## 3.4 Access the nutritional information



**Participating Actor:** User

**Entry conditions:** User is accessed the disease page

**Exit conditions:** User obtain the nutritional information

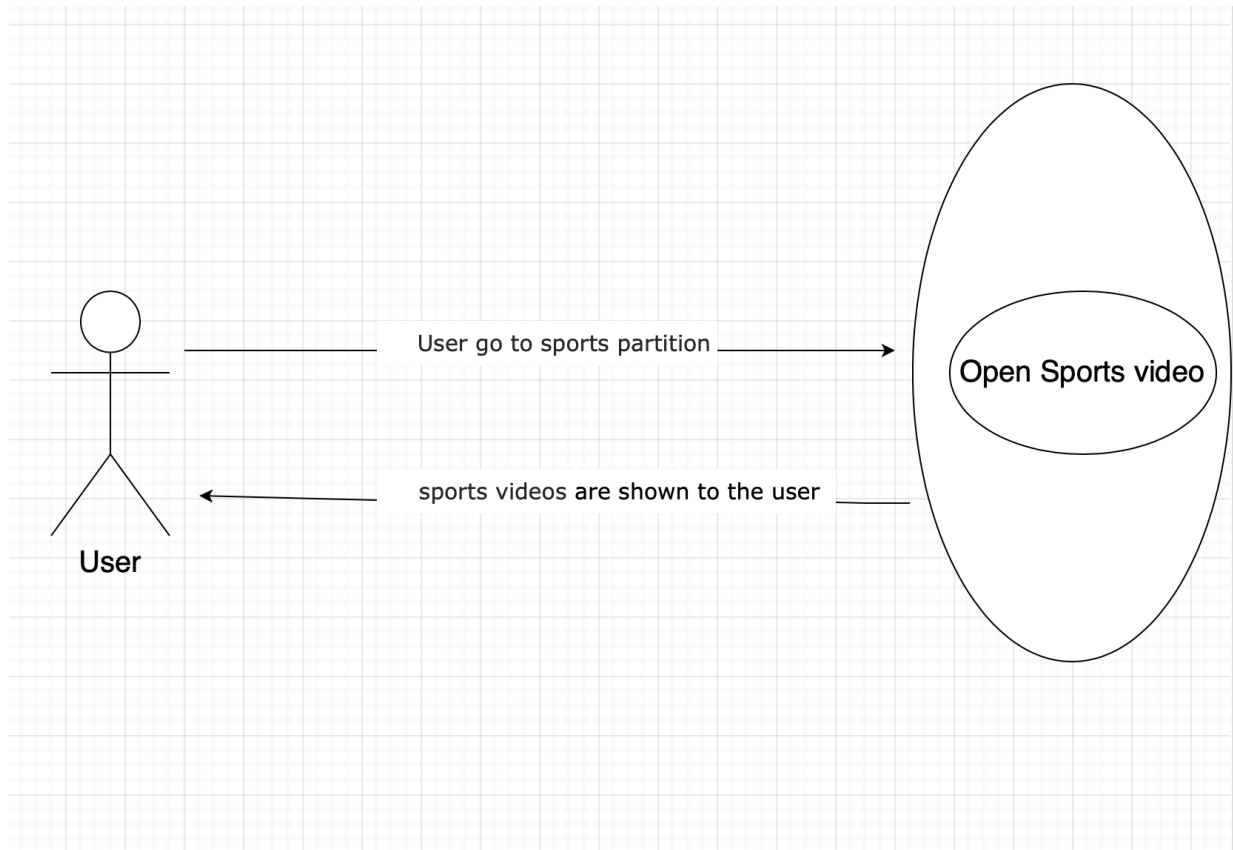
**Flow of events:**

- User is accessed the disease page
- Go to nutrition partition

**Special Conditions:** No special conditions



## 3.4 Open Sports Video



**Participating Actor:** User

**Entry Condition:** User is accessed the disease page

**Exit Condition:** User watch sports Video

**Flow of events:**

- User is accessed to the disease page
- Go to sports partition
- Open the video

**Special requirements:** No special requirement

## 4.0 Non-Functional Requirements

### 4.1 Performance

The website should load quickly to ensure a seamless user experience. Response time for search functionalities should be kept minimal.

### 4.2 Security

Implement robust security measures to protect user data, especially in the case of appointment scheduling and user accounts. Regularly update and patch security vulnerabilities to prevent unauthorized access.

### 4.3 Scalability

Design the website architecture to accommodate potential future expansions, such as the addition of new sections or features.

### 4.4 Accessibility

Ensure the website is accessible to users with disabilities, following relevant accessibility standards (e.g., WCAG).

### 4.5 Reliability

The website should be available 24/7 with minimal downtime for maintenance. Implement a backup and recovery system to safeguard against data loss.

### 4.6 Usability

Design an intuitive and user-friendly interface to enhance the overall usability of the website. Provide clear instructions and guidance for users interacting with different sections of the site.

### 4.7 Collaboration

Establish efficient communication channels with medical professionals, nutritionists, and other collaborators to ensure the timely update of content and information.

#### 4.8 Regulatory Compliance

Adhere to relevant medical and healthcare regulations and standards to ensure the website's compliance with legal requirements.

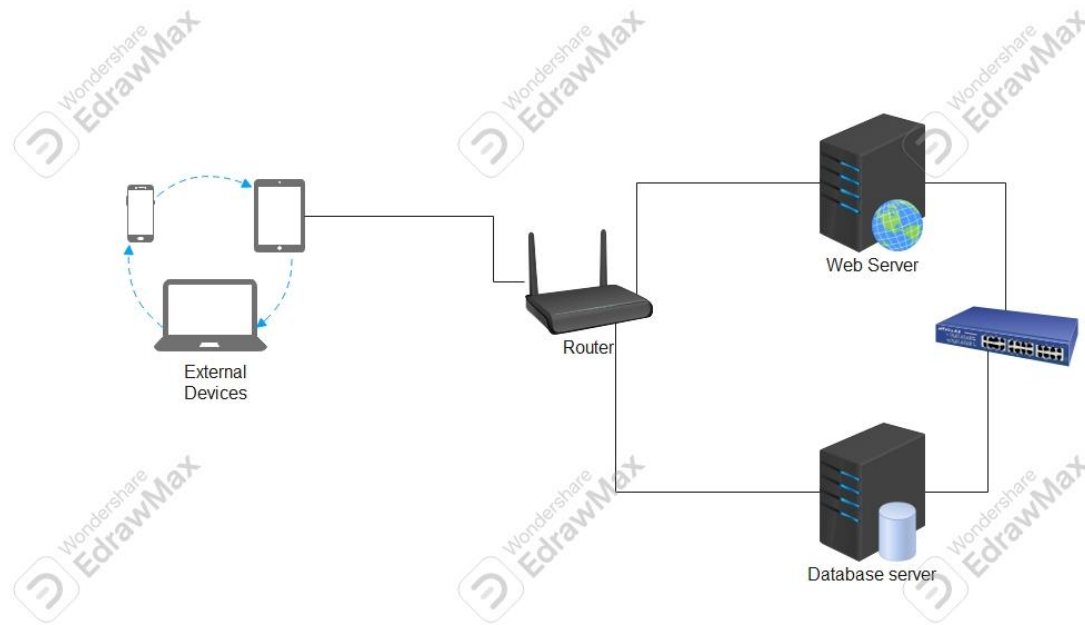
#### 4.9 Mobile Responsiveness

Optimize the website for mobile devices to cater to users accessing the platform from different devices and screen sizes.

#### 4.10 User Training and Support

Provide user documentation and support to help users navigate and make the most of the website's features. Include a feedback system to gather user opinions for continuous improvement.

# 5.0 Architecture



## 5.1 Web Servers:

### Use Cases:

- Hosting the website's files and serving web pages to users.
- Handling user requests for accessing content, submitting forms.

### Functionality:

- Web server software to process incoming HTTP requests and serve web pages.
- Execution of application code to generate dynamic content and handle user interactions.
- Integration with backend services to retrieve and store data required for website functionality.

## 5.2 Database Servers:

### **Use Cases:**

- Storing and managing user data, including profiles.
- Storing content metadata, such as articles, resources, and user-generated content.

### **Functionality:**

- Database management system (DBMS) software create, read, update, and deletes data.
- Data storage and indexing mechanisms to optimize query performance and ensure data consistency.
- Data backup and recovery mechanisms to protect against data loss and ensure data integrity.

## 5.3 Networking Equipment:

### **Use Cases:**

- Facilitating communication between hardware components within the system.
- Managing external network connections and routing traffic between the internet and internal network components.

### **Functionality:**

- Routers and switches to route and switch network traffic between devices and networks.
- Firewalls and intrusion detection/prevention systems, to protect against unauthorized access and malicious activity.
- Load balancers to distribute incoming network traffic across multiple web servers and optimize performance and scalability

## 5.4 External Devices:

### **Use Cases:**

- External devices serve as primary access points for users to interact with the chronic conditions' website while on the go.
- Users can access resources and communicate with healthcare providers through responsive web interfaces.

### **Functionality:**

- Development of user-friendly web interfaces to provide seamless access to website features and content.
- Offline capabilities to allow users to access certain features and content even without an internet connection