SOFTWARE REQUIREMENTS SPECIFICATIONS

FOR

ONE HEALTH POINT - ONE POINT FOR ALL YOUR HEALTH RELATED HELP

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Revision History

Name	Date	Reason For Change	Version
One Health Point	15/09/2023	Initial Version	1.0

1. <u>Introduction</u>

1.1 Purpose

The purpose of this document is to outline the system requirements for "One Heath point - one point for all your health related help". This Web Application would provide a one stop point for all your health related emergencies and daily needs. Our Web Application would provide a live ambulance tracking system along with notifications to ensure timely help to the victim. It also aims to provide contact with volunteers near pregnant women in rural regions for help in emergencies. Alongside, it aims to provide information regarding government schemes, disease prediction and other concerns as services.

1.2 Document Convention

Font Face	Arial
Heading font size	20px
Sub Heading font size	14px
Table / Sub sub-heading font size	13px
Content font size	12px

Apart from this, special highlighting of important keywords have been done to make it differentiable. Every requirement stated in this document has its own unique priority and every functionality is equally important.

1.3 Intended Audience and Reading Suggestions

This document is meant for the **users who will be using** this app. The initial requirements are thought by developers but depending on the users' feedback of the features, existing requirements can be modified swiftly.

This document shall also serve as the reference document for the Project Management and Development team who will **analyze, design and implement the system.**

The developers will coordinate every activity taking place in the Software Engineering process and will be guided by Prof. Rajesh Bhatia.

1.4 Definition and Acronym

Term	Full Description
One Health Point	One point for all your health related help
Admin	Person responsible for the upkeep, configuration, and reliable operation of the system
Users	Anyone using the system
DFD	Data Flow Diagram
API	Application Programming Interface
JS	Java Script (A programming language whose frameworks will be used to develop the application)
Python	A programming language which will be used for any machine learning aspect of application.
Firebase	Google backed application development software which provides services like real-time database and storage.
BS	Beautiful Soup (A python library which might be used for scraping data from various sites)
NPM	Package manager for NodeJs
NPX	Package executor for all packages installed using NPM.

1.5 Overview

The remaining part of document comprises of **4** sections as follows:

- **Section- 2:** It describes the product perspective, its functional requirements and stakeholders involved in the system, along with the non-functional requirements like scalability, performance etc.

- **Section- 3:** It describes all the interfaces comprising the user interface specifications, hardware interfaces and software interfaces.

- **Section- 4:** Index.

2. <u>Overall Description</u>

2.1 Product Perspective

The perspective of the system is to provide timely medical help to victims in case of emergencies. The **MVP of our product** is the ambulance tracking and request system. The system ensures that users might get timely help and those along the route might be notified so that ambulances get traffic free routes. There are additional services like disease prediction and list of volunteers to help in case of emergencies. The product also provides a chatbot that might help naive users to navigate through the platform.

2.2 Product Functions

The functions of our One Health Point platform are as follows:-

- **Real Time Ambulance Tracking** that provides for tracking and requesting ambulances in real time.
- A chatbot for helping naive users navigate through the platform.
- A display of current government schemes and other beneficiary schemes for the public.
- A **disease predictor** based on input symptoms.

2.3 User Requirements
- **Hardware:-**
    1. A computing device i.e. a laptop or a desktop, with a functional keyboard or a smartphone with GPS.
    2. A good internet connection.

3. Specific Requirements

3.1 Functional Requirements

Functional Feature	Remarks
Authentication	Authenticate users using their Google account.
Send Message	Users can send messages to chatbot.
See received messages	Messages (including brief error messages) from chatbot are visible to users.
See error messages	Detailed error message will be visible to the admin only.
Check Availability of Ambulance	Users can check the availability of ambulances near their location.
Check if An Ambulance passes by their route	Users will be able check if there is an ambulance passing by their route.

3.2 Non Functional Requirements

3.2.1 Performance Requirements

At the peak, the system should be able to **scale up to around 5000 users concurrently**. The response time for ambulances may depend on the population density, traffic density and ambulance availability.

3.2.2 Security Requirements

Since the APIs used are from a third party so users must agree to terms and conditions of it before using the system. To **ensure the integrity of users' privacy,** third party APIs used are from trusted vendors. User's data stored and transmitted is ensured that it is end to end encrypted and sensitive data such as password have been hashed.

3.3 Constraints

Hardware Requirement

- 1 GB RAM
- 0.5 GB memory to store data

Software Requirement

- **Node.js** (A Javascript runtime environment)
- **NPM** (A package manager)
- **NPX** (A package executer)
- **Python** 3.x

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