**Quest Global Case Study**

Blood Bank Management System

Software Requirements Specification Version <1.3.2>

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| <04/01//2023> | <1.0> |  | Team1 |
| <06/01/2023> | <1.1> |  | Team1 |
| <08/01/2023> | <1.2.1> |  | Team1 |
| <11/01/2023> | <1.3.2> |  | Team1 |

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# Software Requirements Specification

## Introduction

The project blood bank management system is known to be a pilot project that is designed for the blood bank to gather blood from various sources and distribute it to the needy people who have high Requirements for it. The Software is designed to handle the daily transaction of the blood bank and search the details when required. It also helps to register the details of donors, blood collection details as well as blood issued reports. The software Application is designed in such a manner that it can suit the needs of all the blood bank requirements in the course of future. It will help us to find the Blood group with its most efficient time to take care of the blood and blood and it is more easy more easy to hand to hand over the blood he blood to the hospital to hospital to help people help people to get  blood on time. This all thing has been stored and been seen in this blood bank management system. To help more people trying best to do so.

* 1. **Purpose**

The Blood Bank Management system is a great project. This project is designed for successful completion of a project on blood bank management system.

The basic building aim is to provide blood donation service to the city recently. Blood Bank Management system is a web-based application that is designed to store, process, retrieve and analyse information concerned with the administrative and inventory management within a Blood Bank.

This project aims at maintaining all the information pertaining to blood donors, different blood groups available in every Blood Bank and help them manage in a better way.

Project aim is to provide transparency in this field, make the process of obtaining blood from a Blood Bank hassle-free and corruption-free and make the system of Blood Bank Management effective.

* 1. **Scope**

The specification builds on the experience of IT technology in blood transfusion that is currently available and informs both Connecting for Health (CfH) and commercial companies producing both hardware and software.

The main objective of this specification is to support the automated tracking of blood products from the initial collection of the blood unit to the final ordering and purchase of the units by hospitals.

* 1. **References**

The references are:

* <http://www.bharatbloodbank.com>
* <http://www.lionbloodbank.net/>
  1. **Overview**

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product. General description of the project is discussed in section 2 of this document.

Section 3 gives the functional requirements, data requirements and constraints and assumptions made while designing the Blood Band Management System. It also gives the user viewpoint of product. Section 3 also gives the specific requirements of the product. Section 3 also discusses the external interface requirements and gives detailed description of functional requirements. Section 4 is for supporting information.

## Overall Description

This document contains the problem statement that the current system is facing which is hampering the growth opportunities of the company. It further contains a list of the stakeholders and users of the proposed solution. It also illustrates the needs and wants of the stakeholders that were identified in the brainstorming exercise as part of the requirements workshop. It further lists and briefly describes the major features and a brief description of each of the proposed system.

The following SRS contains the detail product perspective from different stakeholders. It provides the detail product functions of Blood Band Management System with user characteristics permitted constraints, assumptions and dependencies and requirements subsets.

## Specific Requirements

The specific requirements are –

* 1. **Functionality**

### **3.1.1 Access Website:**

User should be able to access web-application through either an application browser or similar service on the mobile phone or computer. There should not be any limitation to access web-application.

### **3.1.2 User Registration:**

Given that user has accessed web-application, then the user should be able to register through the web-application. The donor user must provide first name, gender, blood group, location, contact , username and password.

### **3.1.3 User log-in:**

Given that the user has registered, then the user should be able to login to the web-application. The login information will be stored on the database for future use.

### **3.1.4 Search result in a list view:**

Search result can be viewed in a list. Each element in the list represents a specific donor. Each element should include first name, gender, blood group, location, contact according to the user position. There should be maximum of ten result display.

### **3.1.5 Request Blood:**

User should be able to request for blood at emergency situation, user need to define blood group, location, required date, contact. The order requested will be sent to blood bank and then to the Inventory to check the availability. If available, the requested blood will be sent to the requested donor.

### **3.1.6 View Request:**

The Blood Bank should be able to view received request and then respond to them and can search requests by selecting option select blood group.

### **3.1.7 Search Blood Bank Stock:**

Receiving the order from place, the blood stock in the Blood Bank Inventory will be searched to match the requested order. Thus matched blood units will be sent to the Hospital.

### **3.1.8 View Order Details:**

The Blood Bank should be able to view the OrderId, order placed location and the address of the order.

### **3.1.9 View Delivery Status:**

The Blood Bank should be able to view the status of the delivery. If the delivery seems to be delayed then the hospital manager must to able to call the delivery person to get the update on the delivery.

* 1. **Usability**
     1. ***Graphical User Interface***

The system shall provide a uniform look and feel between all the web pages. The system shall provide use of icons and toolbars.

* + 1. ***Accessibility***

The system shall provide English language support.

* 1. **Reliability & Availability**

* + 1. **Reliability**

Blood bank management system have robust data validation and error handling mechanisms to prevent data corruption or loss. It also have regular backups and disaster recovery plans in place to minimize the risk of data loss due to system failures.

* + 1. **Availability**

To ensure availability, the system have a high uptime and be accessible from multiple locations. It is only accessible from one location is vulnerable to outages due to power failures, network issues, or other problems at that location. Additionally, the system have a scalable infrastructure that can handle increased traffic or user demand.

* 1. **Performance**

The product shall be based on web and has to be run from a web server.

The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is running.

* 1. **Security**
* The system uses SSL (secured socket layers) in all transactions that include any confidential customers Information.

* The system must automatically log out all customers after a period of inactivity.

* 1. **Supportability**
     1. **Configuration Management Tool**
* A website or mobile app for donors to register, schedule appointments, and complete necessary health screenings.
* A database to track donations and donor information.
* Security and privacy measures to protect donors' personal information.
  1. **Design Constraints**
     1. ***Standard Development Tools***

The system shall be built using a standard web page development tool that conforms Microsoft’s GUI standards.

* + 1. ***Web Based Product***

There are no memory requirements. The computers must be equipped with web browsers such as Internet explorer. The product must be stored in such a way that allows the client easy access to it. Response time for loading the product should take no longer than five minutes. A general knowledge of basic computer skills is required to use the product.

* 1. **On-line User Documentation and Help System Requirements**

As the product is Blood Bank Management System, On-line help system becomes a critical component of the system which shall provide –

It shall provide specific guidelines to a user for using the Blood Bank Management System and within the system.

* 1. **Interfaces**

There are many types of interfaces as such supported by the Blood Bank Management System software system namely; User Interface, Software Interface and Hardware Interface.

The protocol used shall be HTTP. The Port number used will be 80.

There shall be logical address of the system in IPv4 format.

* + 1. **User Interfaces**

It has been required that every form’s interface should be user friendly and simple to use.

* + 1. **Hardware Interfaces**

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

* + 1. **Software Interfaces**
* A user-friendly and intuitive navigation structure, to make it easy for donors to find the information they need.
* A registration and login system for donors to create an account.
* A dashboard or profile page for donors to view their upcoming appointments, past donations, and account information.
* A system to provide donation history and track the donors' donation status.
* A contact form or customer support system for donors to get in touch with the blood bank staff in case they have any questions or issues.
  + 1. **Communications Interfaces**

The Blood Bank Management System shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

* 1. **Licensing Requirements**

Not Applicable

## Supporting Information

Please refer the following document:

1. Vision document for E-store.
2. Use case analysis.
3. Structural models.
4. Behavioral models.
5. Non-functional requirements model.
6. Project Plan.