# Software Requirements Specification

**For**

# <Blood Donation BD>

**Version 1.0 approved**

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**<Blood Donation BD>**

**<26/07/2018>**

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# Revision History

| Name | Date | Reason For Changes | Version |
|---|---|---|---|
| Blood Donation BD | 26/07/18 | The site was transferred from .com to .org | 1.0 |
| | | | |

# 1. Introduction

## 1.1 Purpose

This document is specified for the software requirements of Blood Donation BD. Compiled for describing the scope of the system. And how and what used to develop the system. Currently it is in version 1.0.

## 1.2 Document Conventions

The software requirements specification for Blood Donation BD system is written using Standard English Language. And also it is written in a simpler way. Any types of complex things are avoided. Font used Times new Roman and Font size is 12. Main points are written in bold font and the descriptions of those points are written in regular font.

## 1.3 Intended Audience and Reading Suggestions

This documentation is intended for a wide range of audience. System end-users, Managers, System engineers, System test engineers and System Maintenance engineers are main targeted audience. To avoid any complexity and confusion among the audience we suggest everyone to read the documentation from beginning to end.

## 1.4 Product Scope

Blood Donation Bd website is being developed because our goal is to help people with shortest and easiest way. To aid them the system will require a registration from the user. After that the user will input their needed blood group. From that information system will query among hospitals and volunteers who have the same blood group. And if the system is successful in finding any, then it will respond the user with a confirmation message. And this system is a volunteer project. No business or corporate strategies being used.

## 1.5 References

The website is live on the given address:

https://www.blooddonationbd.org/

# 2. Overall Description

## 2.1 Product Perspective

Blood Donation Bd website is completely developed from scratch. It is not a part of any existing system. If any user wants to use the site he/she has to register first. If he/she is registered then they have to login. And then they can query their needed blood group.

## 2.2 Product Functions

Three major functions will work in this project. First the user can interact with the system. Second the system interacts with the other required part of the system (IE database). And third it gives result back to the user. Below is the list of main functions:

- Registration of user
- Login of user
- Query For Blood group
- Return of the result from the system

## 2.3 User Classes and Characteristics

If a medical emergency occurs where the particular user is going to need blood he can use the system to find it easily. The site will respond him with the blood group holder or in other case any nearby hospital from where he can get the blood. Here the user will only get in touch with the blood group holder if and only if the person is willing to donate blood. Otherwise the system will try to find another way to respond to the corresponding blood needed user.

## 2.4 Operating Environment

This system is developed to intend to run 24/7 across the country. User can access the site from their cell phone or from any other device which can run an internet browser. The system is designed to serve from every browser.

## 2.5 Design and Implementation Constraints

The system is currently developed using only 1 GB disk space. And its ram power is 4 GB. So the issue here is when the user base will grow the disk space might not be able to hold all data also the computing speed might not complete all the transaction that will require at that period of time. So taking precaution is mandatory. Also the ssl certificate is issued for 3 months only. After this period it will require the update of the certificate. Otherwise transaction and the security of this site may be compromised.

### 2.6 User Documentation

To use the site properly and all the information about the site is given in the below link. Users are advised to read the entire document.

https://www.blooddonationbd.org/help_desk.html

### 2.7 Assumptions and Dependencies

The website is assumed to be working 24/7. And should process all the transactions as required. But the hosting company is responsible for its uptime. Also the disk space shouldn't be flooded. And precaution has to take before any kind of data overflow occurs. From user perspectives, device with working internet browser is assumed.

## 3. External Interface Requirements

### 3.1 User Interfaces

User Interface designed with html and css. Also bootstrap is used where it was necessary. From login to registration every page has headers, footers. CSS box model is used to develop the site. By using standard input user can interact with the site from various devices.

### 3.2 Hardware Interfaces

To access the site user will only require a web browser. And that web browser should perform both http and https requests. And from device perspectives, user should have a device which might be a cell phone, tablet, pc, ipad that supports web browser.

### 3.3 Software Interfaces

Blood Donation BD site is developed using php, html, and css. And for database mysql is used. Site is hosted using a third party host service. SSL certificate included so that it can communicate through secure way. Currently it is assumed that the site should perform across the country. But in future the range might spread.

### 3.4 Communications Interfaces

As it was described earlier the site is designed with php. And file transfer is used through FTP. Also connection to the site is secured with HTTPS. Even though it can be accessed through HTTP. But

the site will redirect the connection to HTTPS version. For mailing system SMTP method is used. Bandwidth per year is 30 GB.

# 4. System Features

The system is designed in request response cycle. User will request their query. System will process the query and then it will give response as it is designed.

## 4.1 System Feature 1

### 4.1.1 Description and Priority

The main priority of the system is it has to deliver what the user has asked for. Even if it fails to find the answer user is asking for. The system should deliver a response of failure. And if it finds the correct response it should do as specified.

### 4.1.2 Stimulus/Response Sequences

First the user has to register himself if not registered in the system. And if they're registered then all he has to do is to login. After login he can query for their required blood group. The system will response with correct option. And also if correct option is not found it will respond with a failure message.

### 4.1.3 Functional Requirements

If the user inputs wrong email or password the system will give them a option to correct them. Also there will be password change option.

**REQ-1: Correct Mail.**
**REQ-2: Correct Password.**

## 4.2 System Feature 2 (and so on)

# 5. Other Nonfunctional Requirements

## 5.1 Performance Requirements

The system should design in a way that will be as much optimized as possible. For example if a user has a slow net connection even in that case the system should response with correct information. Even if it takes a while. And also atomicity should keep in mind. The transaction has to happen in both way. So if user didn't receive the message the system should detect it and resend the message again.

## 5.2 Safety Requirements

Data should be backed up regularly. All types of data specially user's credentials. Here RAID method can be used to backup data.

## 5.3 Security Requirements

The site is supposed to receive http and https, SMTP request. But it should always use https for interaction with user. And also there should some precaution for sql-injection attack, cross-scripting attack, ddos attack. So when user is putting their mail address and password these functionality should work.

## 5.4 Software Quality Attributes

The site should access from anywhere in the country. And anyone can use it. Also the system can be used as many times as necessary. But only if emergency occurs. And total training time shouldn't be more than half hour for any user.

# 6. Other Requirements

Currently the site is written in English language. But it can be translated using Google translator. And in future the whole site might be redesigned in Bangla language as well.

# Appendix A: Glossary

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