# Software Requirement Specification (SRS)

## Blood Donation Website

## 1. Introduction

Purpose: This SRS describes the requirements for a web-based Blood Donation System that connects donors, recipients, and hospitals.  
Scope: The system will allow users to register as donors, request blood, and hospitals to manage donor/recipient data.  
Definitions:  
 - Donor: A person who donates blood.  
 - Recipient: A patient in need of blood.  
 - Hospital/Admin: Entity managing requests and approvals.

## 2. Overall Description

Product Perspective: A centralized platform accessible via web browser.  
Product Functions:  
 - Donor registration and profile management  
 - Search donors by blood group and location  
 - Request blood from registered donors  
 - Hospital/admin verification  
User Classes and Characteristics: Donor, Recipient, Hospital/Admin  
Operating Environment: Platform: Web (HTML, CSS, JS, PHP/Python/Node.js), Database: MySQL

## 3. System Features

- Donor Module: Register, update details, view request history  
 - Recipient Module: Request blood, view donor details  
 - Admin Module: Approve requests, manage database  
 - Notification System: SMS/Email alerts for donor-recipient matching

## 4. Functional Requirements

1. Donor must be able to register with name, blood group, age, contact details.  
2. Recipient must be able to search for donors by blood group and location.  
3. Admin must verify donor eligibility.  
4. System must notify matching donors when a recipient raises a request.

## 5. Non-Functional Requirements

- Performance: Search results should be retrieved within 2 seconds.  
 - Security: Data should be protected with authentication and encryption.  
 - Usability: User-friendly interface for non-technical users.  
 - Scalability: System must handle at least 10,000 users simultaneously.

## 6. External Interface Requirements

- User Interface: Simple web-based UI with forms, search bar, and dashboard.  
 - Hardware Interface: Works on PCs, tablets, and mobiles.  
 - Software Interface: MySQL Database, SMTP service for notifications.

## 7. Other Requirements

- System must comply with data privacy regulations.  
 - Availability: 24/7 access with 99% uptime.