
Software Requirements Specification

for

<Blood Donors Foundation>

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

A blood donation is when a person willingly consents to having their blood collected and used for transfusions or fractionated to create pharmaceutical drugs. Patients require blood for a variety of reasons. It's a prevalent misconception that patients who use the most blood are those who have been in accidents. Actually, individuals who require the most blood are those who: being treated for genetic blood diseases, cancer treatment, orthopedic surgery, cardiovascular surgery, and cancer treatment.

The goal of establishing a Blood Donors Foundation is to give donors a useful tool where they can learn about current blood donation camp timing as well as learn about upcoming blood donation camps so they can schedule a blood donation appointment that works for them.

The version of the document is 1.1

1.2 Document Convention

The document should justify fully.

Convention for main title:

- Font Name: Times New Roman.
- Font style: Bold
- Front size: 32

Convention for sub title:

- Font Name: Times New Roman.
- Font style: Bold
- Front size: 14

Convention for body:

- Font Name: Times New Roman.
- Font style: Normal
- Front size: 12

1.3 Intended Audience and Reading Suggestions

This document is written for aerial survey persons (users and testers of the system) and software developer to clarify the function and look of the software. Also, people planning surveys or using results might have wishes for functionality. Administrators of the SW will be able to perform special and rare functions with less obvious user interface.

Here is a list of collaborators to this document. The draft will be sent to this email list for feedbacks and comments.

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1.4 Product Scope

Scope-1: Admitting donors

Scope-2: Finding Blood

Scope-3: Tracking Donors

Scope-4: Finding Nearby Hospitals

Scope-5: Informing about blood campaign

1.5 References

<https://nammco.no/wp-content/uploads/2018/05/o04-software-requirements-draft-specification-for-supersurveyor-programme.pdf>

2. Overall Description

2.1 Product Perspective

Our system stores following information

1. Donor details
2. General user details
3. Other blood related organization description.
4. Donors history
5. Hospital details

2.2 Product Function

The functions are:

- All users can create account and login to the system.
- User can update their information.
- Admin can delete their information.
- Donors can update last donation date.
- User can see donor's locations.

2.3 User Classes and Characteristics

- As a blood donor
I want donate blood for healing an emergency blood needed patients.
- As a general user
I want to find doners so that they can be manage blood at an emergency situation.

- As a mobile bank
I want to transect money so that user can donate money in online.
- As a Hospital or Diagnostic
I want to admit patient for blood infusion

2.4 Operating Environment

- Client/server system
- Distributed database
- Operating system (Windows 32 bit or 64 bit)
- Database: MySQL

2.5 Design and Implementation Constraints

- Maintenance
- Security issues
- Financial support

2.6 User Documentation

- Policy manual
- Instruction Document
- Help button

2.7 Assumption and Dependencies

- Users are able to run an application
- Database takes huge space of storage

3. External Interface Requirements

3.1 User Interfaces

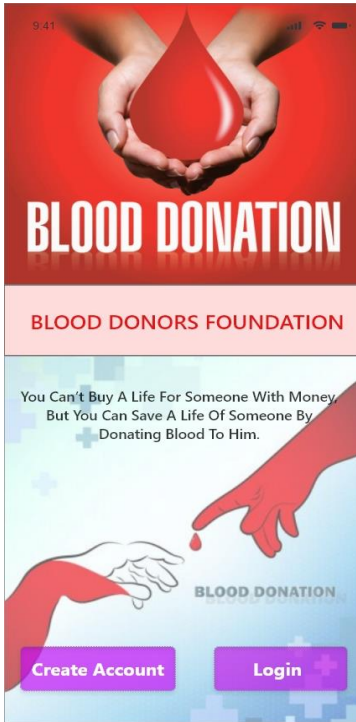


Figure: Home Page

Figure: User Registration

Figure: User Login



Figure: Menu Bar

Figure: Request for Blood

A+ 18	B+ 11	AB+ 14
A- 8	B- 5	AB- 6
O+ 12	O- 4	Total Donors 78
Total Donated Today 4	Today's Requests 4	Today's Approved Requests 4

Figure: Available Donors

Figure: Donor Profile

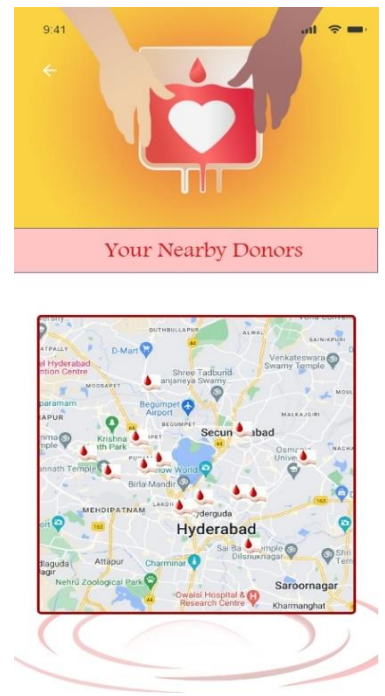


Figure: Nearby Donors

3.2 Hardware Interfaces

- Android
- Web browser which supports HTML, React. Javascript

3.3 Software

- Operating system: Windows operating system
- Front-end software: HTML, React
- Back-end software and Database: ASP.net, MySQL database

3.4 Community Interface

- All type of web browsers
- chatting system
- Email
- Phone number
- Google map

4. System Features

4.1 System Feature 1

4.1.1 Description and Priority

- Information of all blood banks donor details, donate blood with their interest and others will do future.
- Interested in donating the blood can register.
- Checking pre-transfusion samples and request.
- Safe delivery and handling of blood components.
- Cost is in medium priority
- Benefit is in High Priority
- A feature to store and manage data in a database in accordance with a data-structure template must be provided by the software system.

4.1.2 Stimulus/Response Sequences

- System user clicks on the blood groups button => donors nearby recipient appears
- Choose a doner from the map => donors profile show from the database
- Click on the request button => a message send to the donor and recipient can contact with donor

4.1.3 Functional Requirements

- REQ-1: The system should enable users to complete and submit forms.
- REQ-2: The program should get information from the database.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- Proper Internet connection
- Proper device to run the system
- User should know how to run

5.2 Safety Requirements

The database may get crushed at any certain time due to virus or operating system failure. There for it is required to take the database backup so that the database is not lost

5.3 Security Requirements

- The system will employ a secure database.
- Different user kinds will be present in the system, and each user will have access restrictions.

5.4 Software Quality Attributes

- One administrator may start the project, and that administrator will have the authority to make system changes. However, members or other users are unable to make modifications
- The project should be open source.

5.5 Business Rules

Anything that records and puts into practice business policies and practices is referred to as a business rule. A rule can implement corporate policy, reach a conclusion, or extrapolate new information from the past. This comprises the policies and guidelines that system users must follow. This contains the project's price as well as the discounts that were offered. Users should refrain from using unlawful rules and procedures. Both administrators and members should adhere to the laws and regulations

6. Other Requirements

The system in the blood donor's foundation can manage the ambulance calling system to ensure that the ambulance gets to its location as soon as possible.

Appendix A: Glossary

The following is a list of the conventions and acronyms used in both this text and the project:

User: All users can create account and login to the system, update their information and also user can see donor's locations.

Admin: Admin can add, update and delete their information.

Donor: Donors can register and update last donation date.

Blood Recipient: Recipient can register and also blood request to the system.

Bank: Bank can give the money receipt to the system.

Layer: Exemplifies a portion of the project.

SQL: Structured Query Language used to reclaim information from a database.

SQL Server: A server for organizing and storing data structured format.

Database: It can take the data from the system and also store it.

User Interface Layer: The portion of the layer that discusses the user's direct interactions.

Application Logic Layer: This part of the layer that mentions the web server. Here, all calculations are done.

Data Storage Level: Where all data is recorded is described in this area of the layer.

Use Case: A high-level diagram of the project that provides a fundamental overview.

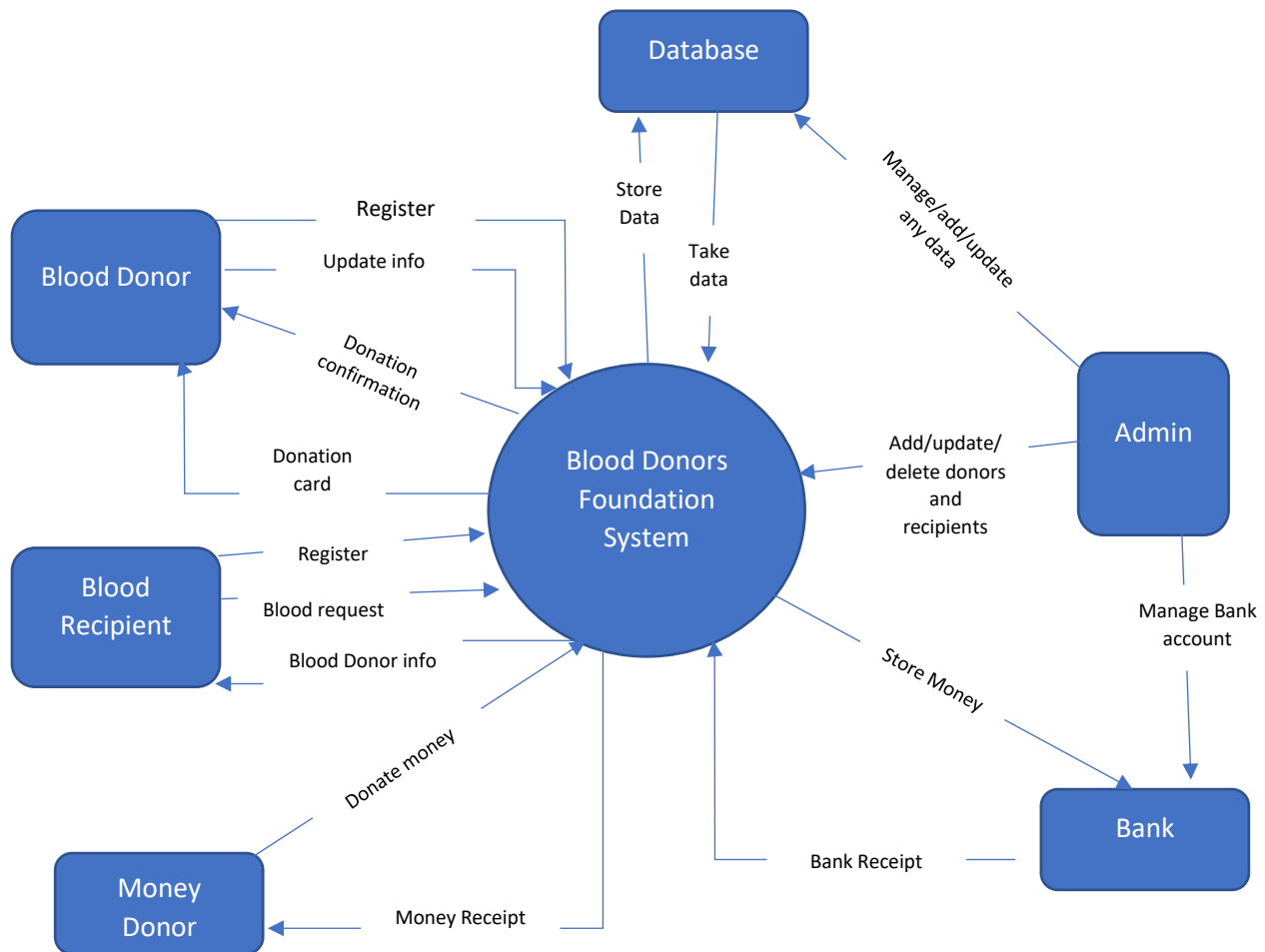
Data flow diagram: The DFD gives details information on the inputs, outputs, and process itself for each entity. The modeling tools for structured analysis include the data-flow diagram.

Unique Key: It is utilized to separate database entries.

Interface: It is something that can used to communicate across different mediums.

Appendix B: Analysis Models

Data flow diagram for Blood Donors Foundation System



Appendix C: To Be Determined List

- [1] "Blood Donation Research Paper," *Essayempire.com*, 11-Aug-2017. [Online]. Available: <https://research-paper.essayempire.com/examples/argumentative/blood-donation-research-paper/>. [Accessed: 06-Dec-2022].
- [2] "Blood donation research paper," *Ipl.org*. [Online]. Available: <https://www.ipl.org/essay/Blood-Donation-Research-Paper-FJJCSZKUU>. [Accessed: 06-Dec-2022]
- [3] *Researchgate.net*. [Online]. Available: https://www.researchgate.net/publication/284368323_Knowledge_Attitude_and_Practices_of_Blood_Donors_toward_Blood_Donation. [Accessed: 06-Dec-2022]