Apollo Blood Donation System

Software Requirement Specification (SRS) Document

Sprint 1 Implementation

Project Timeline: 19-10-22 to 26-10-22

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1.Introduction

The introduction of the software requirement specification provides an overview of the entire software. The entire SRS overview description purpose, scope, tools used and basic description.

The blood donation system will help the receivers to check the availability of the blood packets. This software is able to gather the blood donor's information.

The aim of this document is to gather, analyze and give an in-depth insight into the Blood Donation System. The detailed application of the Blood donation system is provided in this document.

1.1 **Purpose :-** The purpose of this document is to show requirements for the Blood Donation System, in which the donor will increase units by donating number of times and this will be automatically updated by the admin in the system.

1.2 **Intended audience :-** This can be accessed by admin by giving username and password into the system.

1.3 **Intended Use:-** 1)Admin

2)Registration

- Donor registration
- Receiver registration

1.4 **Scope :-** This project aims to create the development of Blood Donating system which takes the donor information such as Aadhar Number. Name, age, type of the blood group donated.

- It also provides the support for new donor's and receiver's registration.
- It also provides the support to delete, update, view the donor's information.
- It also provides the support to delete, update, view and search the receiver's information.
- It provides the support to check how many units are available of the particular blood group.

2.Overall Description

It is a system to store the history of the donors and to keep the track of donor's units whenever donated. This consists of database which will store information of the donor. The receiver can also view the information about the availability of the blood group. It will create the reports of the donor on demand to check availability. The admin/user can view the details of the donor database. The admin is able to view the donor's information. The strong password also plays a vital role if the password entered wrong then the system is not allowed to view the data or to do any kind of modifications. The password should be matched. The main purpose of this system is to view donor database, receiver database.

2.1 Assumptions and Dependency

- System should have any flavour of Linux installed.
- System should have either 4GB or more RAM.
- The system is used preferably on a desktop or laptop.

3.System Features and Requirements

3.1.1 main( ) : This is the first main function that provides the flexibility about the System.

3.1.2: menu( ) : This is the function to go for admin menu or to go for the registration.

3.1.3: admin( ) : The admin can enter by giving the username and the password. By giving the proper details the Admin can login successfully.

3.1.4: menu_admin( ) : This function is for admin to go for donor, receiver, records, donate and exit.

3.1.5: registration( ) : If the person is new to the system the person has to be registered.

- If the person is donor Press 1 for donor registration.
- If the person is receiver Press 2 for receiver registration.

3.1.6: donor_reg( ) : This function is used for donor's registration.

The donor should register by giving the Aadhar number, name, age, blood group.

3.1.7: receiver_reg( ) : This function is used for receiver's registration.

The receiver should register by giving the Aadhar number, name, age, blood group.

3.1.8: donor( ) : This function is used to delete, update, view the donor's information.

Enter your choice 1. Delete donor

2. Update donor

3. View donors

4. Go back to main menu

3.1.9: del_donor( ) : This function is used to delete the donor's information.

By entering the Aadhar Number the specified Aadhar Number person's details will be deleted successfully.

3.2.0: update_donor( ) : This function is used to update the donor's information.

By entering the Aadhar number the specified Aadhar Number person's details like donor name, age, contact number, gender.

3.2.1: view_donors( ) : This function is used to view the donor's information.

The Aadhar number, name, age, blood group, phone number of all the donor's can be viewed.

3.2.2: receiver( ) : This function is used to view the receiver's information.

Enter your choice 1. Delete receiver

2. Update receiver

3. View receiver

4. Search

5. Go back to main menu.

3.2.3: del_receiver( ) : This function is used to delete the receiver's information.

By entering the Aadhar Number the specified Aadhar number receiver details will be deleted.

3.2.4: update_receiver( ) : This function is used to update the receiver's information.

By entering the Aadhar Number the specified Aadhar number details like Name, age, contact number can be updated.

3.2.5 : view_receiver( ) : This function is used to view the receiver's information.

By entering the Aadhar Number the specified Aadhar number person's details can be viewed.

3.2.6: records ( ) : This function is used to search for the particular blood group Availability and the number of units.

3.2 System requirements :-

3.2.1 Tools to be used:

- Valgrind
- Splint
- Gdb
- Make
- Ctags

3.2.2 Technical Requirements :-

- C programming Language.
- Use file input/output operations to read and write the Donor and transaction details.
- Use data structure of your choice and dynamic memory allocation for all Operations.

3.2.3 System Features:

- Supporatablity: The System is easy to use.
- Design Constraints: The System is built using only C language.
- Usability: The automatic updation of the records of donor after donating blood. Recording the details of the donor like name, age, gender, contact details. The number of units of the donor will be given based on the donated times. The important one is the Aadhar number is the unique identity number. The donor and the receiver Aadhar number can never match.
- Readability & Availability : The system is available 24/7 that is whenever the user would like to use the system, they can use it to its functionalities.
- Performance: The system will work on the user's terminal.

4.DataFlow Diagram

DFD Level 0 :