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# ***BLOOD BANK MANAGEMENT SYSTEM***

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**PURPOSE:**

The purpose is to meet the challenging requirement of modern day blood to efficiently collect blood during emergency.

**SCOPE:**

This system presents an alert system to the donor about requirement of their blood to a person need and also provide online status of blood group wise availability of blood unit.

**DEFINITION , ACRONYMS AND ABBREVIATION:**

SRS- Software Requirement Specification

GUI- Graphical User Interface

Stack Holder- The person who will participate in system Ex. User, Administrator.

**REFERENCES:**

<https://www.blood.co.uk/the-donation-process/further-information/tests-we-carryout/>

<http://www.redcrossblood.org/donating-blood/donation-faqs>

<http://www.redcrossblood.org/learn-about-blood/blood-types>

<http://www.nhs.uk/Conditions/Blood-groups/Pages/Introduction.aspx>

<http://www.webmd.com/a-to-z-guides/blood-type-test#1>

<https://en.wikipedia.org/wiki/Blood_type>

<https://en.wikipedia.org/wiki/Rh_blood_group_system>

**OVERVIEW OF THE REMAINDER OF THE DOCUMENT:**

The project is a blood bank management system it is designed for the blood bank to gather blood from various sources and distribute it to needy people who have requirements for it. It also helps to register the donors details, hospital details, stack details, camp details, patient details, employee details, technician details, recipient details. This project aims at maintaining all the information pertaining to blood donors, different blood groups available in each blood bank and help them manage in a better way. New blood details are entered into the project. The details are stored in database . Blood bank has a lot of branches in all over India. Blood types are AB +VE , O +VE , A +VE ,B +VE and some of the rare blood groups are AB -VE , A -VE , B -VE , O -VE . Red cells are stored in refrigerators at 6ºC for up to 42 days . Platelets are stored at room temperature in agitators for up to five days. The purpose to organize a **blood donation camp** is to motivate people to **donate blood** and social works. The purpose of **blood donation camp** to select a suitable **donor** whose **blood** will be safe to the recipient and who himself shall not in any way be harmed by **blood donation.** Blood donation makes the work of blood banks easier. It stabilizes their collection which helps other people get blood urgently. The demand is still higher than the supply in blood banks, so we must donate more and more of it to help people. Donor donates blood in camp as well as blood bank.

This projected is developed to manage the blood stack in the “Blood Bank” and the blood prices are maintained in the database. Stack details gives how much blood groups are available in a blood bank. These project have many entities and each entities have many attributes. .There will be a link provided to find blood donors in the region of the user choice. All this is related to the blood bank system.Apart from this we will be using concept of database encryption to make sure that the users information is kept secure and confidential .

**2.GENERAL DESCRIPTION**

* **PRODUCT DESCRIPTION**

All databases for the BLOOD BANK MANAGEMENT SYSTEM will be configured using the database. These databases include donar , hospital, patient information, and other information.

* **HARDWARE INTERFACE:**

Operating system: Windows XP/Windows 7/ Windows 8

Processor: Pentium- II or higher

Hard Disk Space: 40 GB (min.)

RAM Memory: 512 MB (Min)

* **SOFTWARE INTERFACE:**

XAMPP Software v 3.2.1

Apache server 1.8.2

MySQL database Server 5.5

IDE: Kite

Browser: Google chrome or Mozilla firefox or Internet explorer.

**PRODUCT FUNCTIONS:**

**1.BLOOD BANK:** Blood bank has a lot of branches in all over India. In each state no of blood banks are located in each district. The blood bank is organized into branches . Each branch is located in a particular city and is identiﬁed by a unique name .If any one needs information about any blood bank you can mail them to the corresponding mail id. Those who want blood you can collect the blood from near by blood bank branches. Check the corresponding website for the blood bank to know the details of the blood bank , and also know which types of blood and it’s quantity available in blood bank .

**2.DONAR:** Those who interested to donate blood they are directly donate blood in blood bank and register some information like name , weight , address , gender , age , phone number , blood group , disease , date and donor id . Donor id should be unique and should not be null . The information that the public can get are related to blood donation such as advantages of donating blood , what blood group can donate to which blood group , and what are the advantages that the donor get from according to how frequent the donor donate their blood .

Donor’s age must be 18 or above and he/she hasn’t affected by any disease like cancer , jaundice etc . To donate **blood** or platelets, you must be in good general health, weigh at least 110 pounds, and be at least 16 years old. Parental consent is required for **blood donation** by 16 year old , 16 year old are NOT eligible to donate platelets . No parental consent is required for those who are at least 17 years old . Technician collects blood from donor . The Donor can view the blood donation schedule, blood donation history and also blood test results for each of the blood donation that has been made . The Donor can view the advance blood test that has been made to his or her blood during the donation .

**3.LABASSISTANT:** Labassistant collects blood from donor . Labassistant stores the donation date and expire date of blood . Donation date is nothing but the date in which the donor donates the blood . Technician can store the blood details like blood id , code , quantity , red cell count , price , types , platelets and count of each blood . Donations of whole blood where the bleed time exceeded 15 minutes are not suitable for platelet production.

**USER CHARACTERSTICS:**

Technical Expertise-little

**GENERAL CONSTRAINS:**

The document represents a study process, not a real life SRS and misses detailed descriptions and requirements.

**ASSUMPTIONS AND DEPENDENCIES:**

We stored records manually. There will be a overwrite of records or loss of information.

**3.SPECIFIC REQUIREMENTS:**

It should be at a level of specific requirements. It should be at a level of detailed sufficient and it is sufficient to enable designers and testers.

1. **EXTERNAL INTERFACE REQUITEMENTS:**

It contains detailed description of all inputs and outputs.

Registration: Register for donation of blood.

Donar checking: Check whether the donar is eligible for blood donation or not.

Recipient request: Recipient request for the availability of blood or not.

Display Information: Display the requested information.

1. **FUNCTIONAL REQUIREMENTS:**

Blood Bank: Blood Bank stores the blood as well as other details(Donar, Recipient, etc.,)

Donar: Donar can donate blood and their details are stored in database.

Recipient: Recipient can collect blood from blood bank and their details are stored in database.

1. **PERFORMANCE REQUIREMENTS:**

Performance requirements define acceptable response times for system functionality.

● The load time for user interface screens shall take no longer than two seconds.

● The log in information shall be verified within five seconds.

● Queries shall return results within five seconds.

**(iv) LOGICAL DATABASE REQUIREMNTS:**

The logical database requirements include the retention of the following data elements. This list is not a complete list and is designed as a starting point for development.

**DONATION/RESERVATION SYSTEM:**

● Donar name

* Donar age

● Recipient name

● Donar and Recipient address

● Donar and Recipient phone number

● Blood Donated(yes/no)

**DESIGN CONSTRAINTS**

The Blood Donar Database is the used to store the information related to it. The system shall be developed using PHP and MySQL database.

**STANDARDS COMPLIANCE**

There shall be consistency in variable names within the system. The graphical user interface shall have a consistent look and feel.

**RELIABILITY**

Specify the factors required to establish the required reliability of the software system at time of delivery.

**AVAILABILITY**

The system is an online web application and users can access in any latest browser.

**SECURITY**

The system has an encrypted password.

**MAINTAINABILITY**

The Blood Donar Database is being developed in PHP. PHP is an object oriented programming language and shall be easy to maintain.

**PORTABILITY**

The Blood Bank Management System shall run in any Operating system that uses the latest browsers.