



## Blood Bank Management System

*Dere Sanjana<sup>1</sup>, Tangadkar Payal<sup>2</sup>, Prof. Nawale. S. K<sup>3</sup>*

<sup>1,2,3</sup> Department of Computer Engg, Samarth Polytechnic Belhe, Pune, Maharashtra, India.

### ABSTRACT

Blood Bank Management System (BBMS) is a windows based system that is designed to store, process and analyze information concerned with the administrative and inventory management within the blood bank. This project aims at maintaining all the information related to blood donors, different blood groups available in each blood bank and help them to manage in a better way. Main aim is to provide transparency in this field, make the process of obtaining blood from a blood bank is a corruption free and make the system of blood bank management effective. Client is not interested in blood stocking instead we are maintaining blood donors information. The donors who are interested in donating blood has to register in the database. There is no storage of blood so no difficulties in the project. It is developed in a manner that is easily manageable, time saving and comforting one from manual works. As per the requirement of the blood has to be requested and we supply the information of the donor. The donors can update their status whether they are available or not.

### INTRODUCTION

Safety during blood transfusions is still a major public health issue. The public's confidence in the country's top-notch healthcare system is ensured by the availability of blood products for all blood types and the provision of its safety. Today's human health is still affected by the scarcity of certain blood products and the supply of dangerous blood products. Blood transfusion safety is anticipated to be improved or increased by the deployment of an online blood bank management system. By using this programme, the dangers associated with inaccurate documentation of blood donors are reduced, and the possibility of lost data is reduced or eliminated. Additionally, procedures for collecting, storing, and inventorying blood bags will be systematised and managed; this will aid in enhancing healthcare administration. The primary goal of this programme is to manage all blood bank operations. They have thousands of records to keep up with. To find the necessary information rapidly, searching should also be done much more swiftly. This application is designed in a way that it ought to work with any form of blood bank in the future. Therefore, every effort is made to implement this initiative in this blood bank, with the goal of making it successful.

### LITERATURE SURVEY

Some of the projects are discussed in the literature review. All of these initiatives focus on blood bank management systems, which entails organising blood banks such that recipients of blood may get it more easily than they could using earlier, more archaic techniques. These are some of the methods used by the many people who try to make blood banks work better.

- a) In "Automated online blood bank database" by Muhammand Arif; Sreevas; K. Nafseer; R. Rahul(2012). They come up with direct call routine technique by using asterisk. In this every blood bank consist of a database and that will be managed by central server. When someone in need of blood call on their toll free no. they will directly get connected to a donor and after receiving blood from that donor name of that donor will be kept on hold for 8 weeks.
- b) In "Benefits of management information system in blood bank" by Dr. Sharad Maheshwari and Vikas Kulshreshtha. They discuss about the beneficiaries of the blood bank management information system. They show advantages and benefits of these systems.
- c) In 'MBB: A life saving application' by Ramakant Gawande; Narendra Gupta; Nikhil Thengadi. They come up with a system to link all donors and help in controlling blood transfusion process. Their system will also maintain database which hold data of donors and blood according to their city and further by their locality.
- d) In "Blood donation and life saver: blood donation app" by Anish Hamlin M.R; Albert Mayan J. They introduced as a system where someone wants blood they login into their app and by GIS they can get details of near by blood donors. They also can donate blood by registering themselves.

- e) In “Android blood bank” by professor Snigdha, Pratiksha Lokhande, Siddhi Kesar and Pranita More. Came up with an android app in which updates information about donors time to time and also it shows all the blood banks near to user location. In this admin controls and have all information of the app.
- f) In “A study on blood bank management system” by A.Clemen Teena, k. Sankar, S. Kannan. They made a system through which they can manage information about donors and patients. So that whenever blood is needed they can use this information as blood bank authorized officers have access to this information.

## PROPOSED SYSTEM

The proposed system(Blood Bank Management System) is build to help the Blood Bank administrator to meet the demand of blood by sending and/or serving the request for Blood as and when needed. The proposed system gives the methodical approach of how to bridge the gap between Recipient, Donor, and Blood Banks. This Application will provide a common ground for all the members(i.e Recipient, Donor, and Blood Banks) and make sure that the demand Blood requested by Recipient and/or Blood Bank is fulfilled .

### a) MODULES

#### 1. Appointment Scheduling

This module allows reception to fix an appointment for patient for the blood donation. Effective scheduling technique makes proper utilization of management time and reduces the waiting time of patients.

#### 2. Internal Communication

This module is an innovative and special feature in Blood Bank Management System. It allows all staff users to communicate among themselves electronically for official reason rather than visiting the concerned person for any such discussions. Departmental message can also be sent by the administrator which is common to the staff of that particular department.

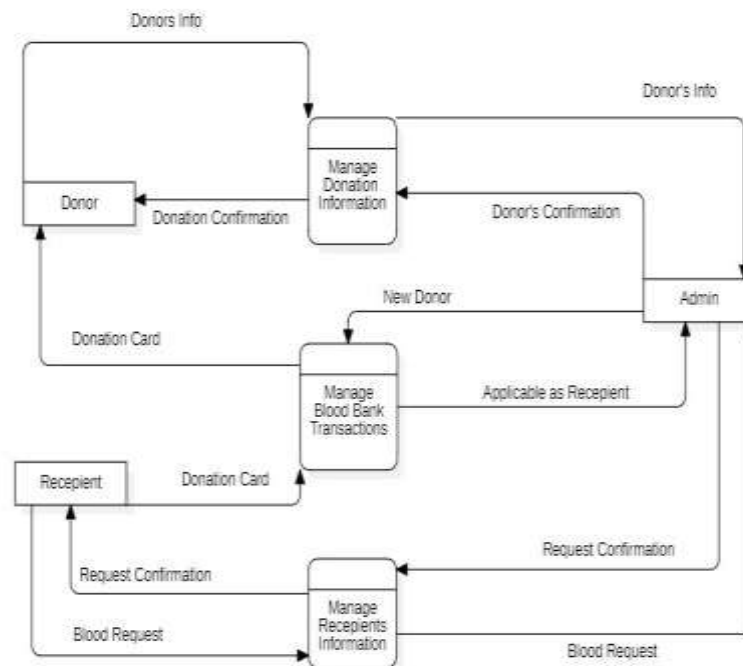
#### 3. Outpatient Management

This module is actually an entry point to schedule an appointment to buy the blood bags which are required by a patient. This module allows to take better patient care and timely issuance of blood to the needy patient.

#### 4. Inventory Management & Purchase

This module deals with the purchase of items that is requires in Blood Bank, issue of those items into various departments, Maintenance of stock and setting up minimum stock level for each stock.

### b) DATA FLOW DIAGRAM



---

## CONCLUSION

This purposed Blood Bank Management System gives a reliable platform to the both donors and acceptors. The BBMS is a window-based application that helps to minimize human errors and problems pertaining to data redundancy. It is a fast and efficient way to communicate without any security threats as the data entered will be verified and frequently updated thereby increasing the probability of saving one's life. Besides, the availability of a location-based system where the nearest blood bank can be located through Google Maps makes it more accessible.

---

## REFERENCES

- <https://www.irjet.net/archives/V8/i6/IRJET-V8I668.pdf/>
- [https://www.researchgate.net/publication/282557014\\_Development\\_of\\_a\\_Blood\\_Bank\\_Management\\_System/](https://www.researchgate.net/publication/282557014_Development_of_a_Blood_Bank_Management_System/)
- <https://www.ijraset.com/research-paper/blood-bank-donation-and-management-using-danjgo>
- <https://www.sciencedirect.com/science/article/pii/S187705092102500X>