

## A Study on Blood Bank Management

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**Abstract:** 'Blood Bank Information System' will be an information management system which helps to manage the records of donors and patients at a blood bank. The system will allow the authorized blood bank officer to login using a secret password and easily manage the records of the blood donors and the patients in need of blood. The key features of the system will be the following:

- Centralized database architecture.
- Access to the system secured by login.
- Search facility for finding blood donors based of various search criteria.
- Search facility for finding Patients (acceptors) based of various search criteria.
- Easy addition and updating of donor's details.
- Easy addition and updating of details of acceptors.

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**Key words:** Information Management • Authorized Blood Bank • Blood Donors • Manage the Records

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### INTRODUCTION

The project entitled Blood Bank Management is a pilot project for new Blood bank to be start soon in the city. The management planned this blood bank to operate on the next month. They have a big plan to collect the blood from many different sources and distribute the same for the needy. To manage all thesethey require full-fledged software which will take care all these. Blood Bank Management is a software application to maintain day to day transactions in a blood bank. This software help to register all the donors, Blood collection details, blood issued details etc [1-5].

The main objective of this application is to automate the complete operations of the blood bank. They need maintain hundreds of thousands of records. Also searching should be very faster so they can find required details instantly [2-9].

This application is built such a way that it should suits for all type of blood banks in future. So every effort is taken to implement this project in this blood bank, on successful implementation in this blood bank, we can target other blood banks in the city.

**Proposed System:** It provides reliable security measures, which protect the data and the package from accidental of deliberate threats that could cause unauthorized modifications [10], disclosures of destruction of the data and protection of the information system by the use of password.

It provides an automated registration of donor code for each type of blood, thus, storing information on the system rather than using bulky files.

Set up forms records all the information of blood category and its donor, recipient and quantity etc. Here we can add edit and search records information according to need.

On site Observations, for collecting data, did on-site observation. In this, I observe the activities of system directly. My purpose of on-site observation was to get as chose as possible to the real system being studied [11]. During on-site observation, I see the office environment, work load of the system and the users, methods of work and the facilities provided by the organization the users, which can.

### Module Description

**User Login Screen:** User will enter the user password and login name to enter application. After successful

login and password the application will load the entire database and its modules. If username or password is incorrect a message will appear 'Invalid Password or Username'. Application Manager: This form is loaded first if the user is an authorized user [12].

**Menu Form:** It is an MDI form i.e. it is the parent form from which all other forms can be referenced. It has the following menus and submenus. This application has been divided into separate four sub modules: These sub modules are

**Donor Management:** This is the module of the system which have sub menu also. This module records donor registration and donor test.

**Donor Registration:** In this form we keep track of all the donor registration information and its details which are entered in the system. It is also useful in searching the donor member information. Donor ID will be auto generated. To enter a donor registration enters name, address, city and phone number and email id. Click on Save to Save the records. To Search the records enter the donor id and click on search, respective donor details will show. User can also edit the records and click on modify to save the modified records.

**Donor Blood Test:** This module keeps the records of that donor blood test which are registered for blood donation. Before taking blood of any donor test of his/her blood required. Enter donor id, test id, Test name, Test date, blood type and test result. Click on Save to Save the records. To Search the records enter the donor id and click on search, respective donor details will show. User can also edit the records and click on modify to save the modified records.

**Recipient Management:** This module records recipient registration details.

- Recipient Registration-In this form we keep track of all the recipient registration information and its details which is entered in the system. It is also useful in searching the recipient member information. Recipient ID will be auto generated. To enter a recipient registration enters name, address, city and phone number and email id. Click on Save to Save the records. To Search the records enter the recipient id and click on search, respective donor details will show [13]. User can also edit the records and click on modify to save the modified records.

**Blood Management:** This is the module of the system which have sub menu also. This module records blood stock, blood reservation and blood issue.

**Blood Stock:** In this form we keep track of all the blood stock quantity donated by donor. Stock is mentioned on blood type and its number of bags donated by donor. Also each bag has expiry date set so that after certain period this blood is expired. It is also useful in searching the blood stock information. Blood Bag ID will be auto generated. To enter a blood stock enters blood type, donor ID, number of bags, stock date and expiry date. Click on Save to Save the records. To Search the records enter the donor id and click on search, respective donor details will show. User can also edit the records and click on modify to save the modified records [14-16].

**Blood Reservation:** In this form we keep track of all the blood reservation donated by donor or any other recipient for the certain period. Reservation is made on blood type and its number of bags donated by donor or as per requirement of the recipient. Also each bag has reservation up to date set so that after set period if this blood is not issue then it will be discarded. It is also useful in searching the blood reservation information. Blood reservation ID will be auto generated. To enter a blood reservation enters blood recipient id, blood type, donor id, number of bags, reserve stock up to date. Click on Save to Save the records. To Search the records enter the reservation id and click on search, respective donor details will show. User can also edit the records and click on modify to save the modified records [17-19].

**Blood Issue:** In this form we keep track of all the blood issue to recipient. If reservation is made on blood type and its number of bags donated by donor or as per requirement of the recipient then select reservation id and update the records by entering the issue date. Or enter the fresh issue records Blood issue ID will be auto generated. To issue blood enter a blood reservation enters blood recipient id, blood type, donor id, number of bags, reserve stock up to date. Click on Save to Save the records. To Search the records enter the reservation id and click on search, respective donor details will show. User can also edit the records and click on modify to save the modified records.

## CONCLUSION

A Blood Bank is a software product suite designed to improve the quality and management of blood bank and

hospital health care management in the areas of health process analysis and activity-based costing. Blood Bank Manager enables you to develop your organization and improve its effectiveness and quality of work. Managing the key processes efficiently is critical to the success of the pharmacy. Blood Bank Manager helps you manage your processes. A Blood Bank Manager provides all process management tool elements: modeling, analysis, and simulation. Documentation though an important part of a blood bank management, is a non-productive exercise for the intellectual human being, whose ability lies in core areas of excellence. Hence a systematic approach to the way documents are managed, can transform your pharmacy retailing resources to its highest utility and advantage.

**Future Enhancement:** We have already entered the age of Information Technology, where all the paper work / manually managed files are about to finish, now with the help of this user friendly software all the files stored in the computer can be very well formatted. With little more modifications it will become the good software for Blood Bank. The present 'Blood Bank' project may be further developed for more complex transactions and to meet the requirements of modern day dynamic System Operation. New options and their respective implementation may be done for this purpose.

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