



International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435(Online) Volume 11, Issue 09, September 2022)

A Study on Development of Blood Bank Management System

Suhel Ansari¹, Prof. Sarwesh Site²

¹M.Tech Scholar, ²Assistant Professor, Department of Computer Science and Engineering All Saints' College of Technology, Bhopal, India

Abstract: 'Development of Blood Bank Information System' will be an information management system which the records of donors and patients at a blood bank. The system will allow the authorized blood bank officer to login using a secure 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.

Keywords: Information Management , Authorized Blood Bank , Blood Donors , Manage the Records

I. INTRODUCTION

The project entitled Blood Bank Management is a pilot project for new Blood bank to be started soon in the city. The management planned this blood bank to operate on the next month. They have a big plan to collect blood from many different sources and distribute the same for the needy. To manage all full-fledged software which will take care of these. Blood Bank Management is Software application to maintain day to day transaction in a blood bank. This software helps 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. Need to 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 suit all types 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 or deliberate threats that could cause unauthorized modifications [10], disclosures of destruction of them and protections of the information system by the use of password.

It provides an automated registration of donor code for each type of blood, thus, storing info and to call 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 in information according to need.

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

Module Description

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



International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435(Online) Volume 11, Issue 09, September 2022)

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

II. BACKGROUND

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 information and its details which are 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 or id and click on search, respective donor details will show. Users can also edit the records and click on modify to save the modified records.

Donor Blood Test: 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. Enter donor id, test id, Test name, Test date, or details will show. User can also edit the records and dt type and Test result. Click on Save to Save tck on modify to save The modified records [17-19]. records. To Search the Records enter the donor id and click on search, respective Donor details will show.

fresh issue records Blood issue ID will be auto generated. To issue blood enter a blood reservation enters blood

Recipient Registration- In this form we keep track all the recipient registration and its stock up to date. Click on Save to Save there records. details which is entered in the system. It is also the save records. To Search the records enter the recipient and click on search, respective donor details will show [13]. User can also edit there records and modified records.

Blood Management: This is the module of the which have sub menu also. This module blood is 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 discard. It is also useful in searching the blood reservation information [18].

Blood Catalogue: 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 there 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.

III. CONCLUSION

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



International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435(Online) Volume 11, Issue 09, September 2022)

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 the material 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.

REFERENCES

1. <http://www.occ.gov/publications/publications-by-type/comptrollers-handbook/mis.pdf>
2. Scott Armstrong, J., 1986. The Value of Formal Planning for Strategic Decisions: A Reply. *Strategic Management Journal*, 7: 183-185.
3. Polack, Jennifer, 2009. Planning a CIS Education Within a CS Framework. *Journal of Computing Sciences in Colleges*, 25(2):100-106. ISSN 1937-4771.
4. Hayes, Helen and Onkar Sharma, 2003. A decade of experience with a common first year program for computer science, information systems and information technology majors. *Journal of Computing Sciences in Colleges*, 18(3): 217-227. ISSN 1937-4771. In 1988, a degree program in Computer Information Systems (CIS) was launched with the objective of providing an option for students who were less inclined to become programmers and were more
5. Cohen, M.A. and W.P. Pierskalla, 1975. Management interested in learning to design, develop and implement Information Systems and solve business problems using the systems approach. policies for a regional blood bank. *Transfusion* 15: 58-67.
6. Cohen, M.A. and W.P. Pierskalla, 1979. Target inventory levels for a hospital blood bank or a decentralized regional blood banking system, *Transfusion*, 19:444-454.
7. Tutorial on semi-structured data by Peter Buneman from Symposium on Principles of Database System, 1997.
8. Croft, W.B., H.R. Turtle and D.D. Lewis, 1991. The use of Phrases and Structural Query in Information Retrieval, pp: 32-45. In Proc. 14th Int. SIGIR Conf. On Research and Developments in Information retrieval.
9. Kerana Hanirex, D. and K.P. Kaliyapurthie, 2013. Multi-classification approach for detecting thyroid attacks, *International Journal of Pharma and Bio Sciences*, 4(3):B1246-B1251.
10. Khanaa, V., K. Mohanta and T. Saravanan, 2013. Comparative study of uwb communications over fiber using direct and external modulations, *Indian Journal of Science and Technology*, 6(6): 4845- 4847.
11. Kumar Giri, R. and M. Saikia, 2013. Multipath routing for admission control and load balancing in wireless mesh networks, *International Review on Computers and Software*, 8(3): 779- 785.
12. Kumaravel, A. and K. Rangarajan, 2013. Routing algorithm over semi-regular tessellations, 2013 IEEE Conference on Information and Communication Technologies, ICT 2013.
13. Kumaravel, A. and K. Rangarajan, 2013. Algorithm for automaton specification for exploring dynamic labyrinths, *Indian Journal of Science and Technology*, 6(6).
14. Tatyana Nikolayevna Vitsenets, 2014. Concept and Forming Factors of Migration Processes Middle-East *Journal of Scientific Research*, 19(5):620-624.
15. Shafaq Sherazi and Habib Ahmad, 2014. Volatility of Stock Market and Capital Flow Middle-East *Journal of Scientific Research*, 19(5):688-692.
16. Kishwar Sultana, Najmul Hassan Khan and Khadija Shahid, 2013. Efficient Solvent Free Synthesis and X Ray Crystal Structure of Some Cyclic Moieties Containing N-Aryl Imide and Amide, *Middle-East Journal of Scientific Research*, 18(4):438-443.
17. Pattanayak Monalisa and P.L. Nayak, 2013. Green Synthesis of Gold Nanoparticles Using Elettaria cardamomum (ELAICHI) Aqueous Extract *World Journal of Nano Science & Technology*, 2(1):01-05.
18. Chahatary Rajashree and P.L. Nayak, 2013. Synthesis and Characterization of Conducting Multi Walled Carbon Nanotube-Chitosanposites Coupled with Poly (P-Aminophenol) *World Journal of Nano Science and Technology*, 2(1): 18-25.
19. Parida, U.K., S.K. Biswal, P.L. Nayak and B.K Bindhani, 2013. Gold Nano Particles for Biomedical Applications, *World Journal of Nano Science and Technology*, 2(1):47-57.