

Design and Implementation of Blood Bank Management System

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Abstract—In this paper the purpose of Blood Bank Management System is to automate the existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. As described can lead to error free, secure, reliable, and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help the organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information. The aim is to automate its existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically, the project describes how to manage for good performance and better services for the clients.

I. INTRODUCTION

The goal of this project is to design and implement Blood Bank, it is a place where blood bag that is collected from blood donation events is stored in one place. The term “**Blood Bank**” refers to a division of a hospital laboratory where the storage of blood product occurs and where proper testing is performed to reduce the risk of transfusion related events.

Pathology Department is one of the most important departments in **Dnyan-Pushpa Yojana Patil Hospital (D. Y. Patil Hospital)**. It processes blood that will be supplied to the patients in D. Y. Patil Hospital according to their needs. Before the blood is supplied to the patients, the blood will undergo several tests to ensure that the blood receiver is not infected by serious diseases. There are a few units operating in this department such as Blood House Unit, Blood Transfusion Unit, and Blood Distribution Unit.

Every month, D. Y. Patil Hospital will organize blood donation event which is one of the ways they can increase the blood stock. After the blood donation events, the blood bags that they obtained will undergo tests. All the blood received at the blood donation events must be managed thoroughly and systematically to avoid patient who need the blood infected by any viruses or diseases.

Blood Bank Management System (BBMS) is a web-based system that can assist the information of blood bag during its handling in the blood bank. With this system, the user of this system can key in the result of blood test that has been conducted to each of the blood bag received by the blood bank.

The result of test will indicate whether the blood bag can be delivered to patient or not.

From this system, there are several types of report that can be generated such as blood stock report, donor’s gender report and blood cell according to months and year. The system also can give the information to the donor about blood analysis test result for each time the donor makes contribution.

Hence, **Blood Bank Management System (BBMS)** will make the blood bank stock more systematic and manageable.

II. WORKING

The master page comprises of various sections:

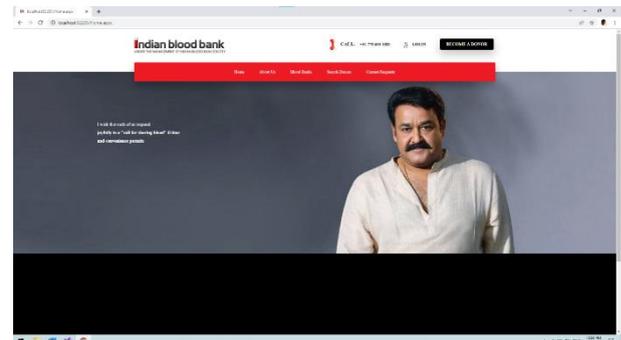


Fig.1 Home

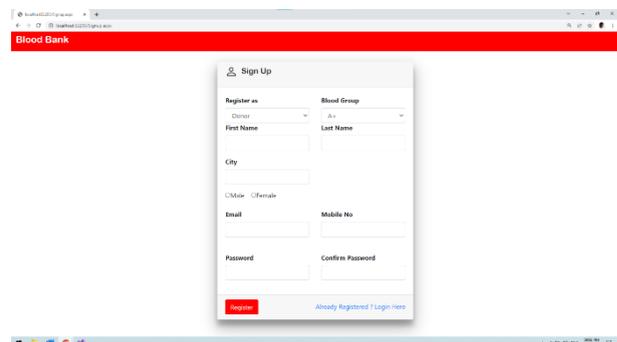


Fig.2 Registration

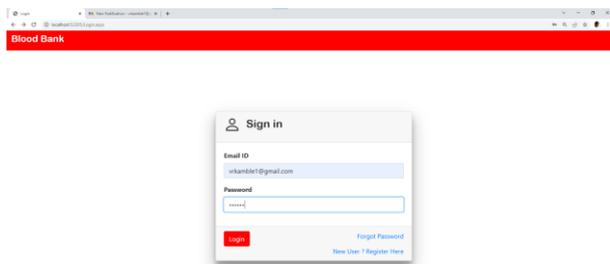


Fig.3 Login

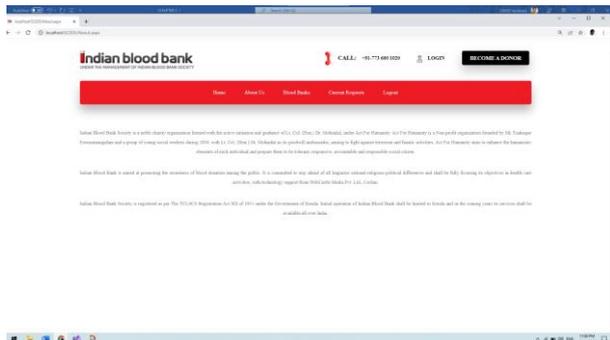


Fig.4 About Us

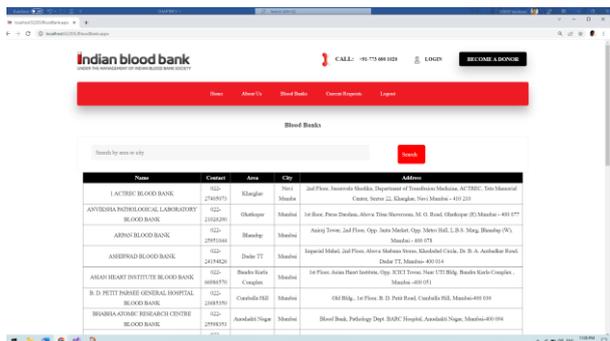


Fig.5 Blood Bank

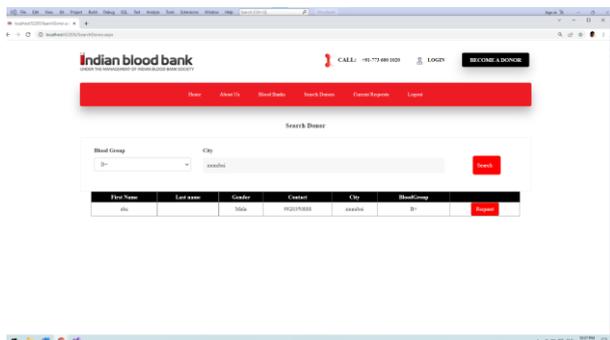


Fig.6 Current Request

III. RELATED WORKS

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in ASP.NET and VB.NET web-based application and not some extent Windows Application and SQL Server, but also about

all handling procedure related with “Blood Bank Management System”. It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

In this world of Information Technology where whole world becomes global village, where end user can get the information just sitting at home on one click.

This project has given me an ample opportunity to design, code, test and implement an application. This helped in putting into practice of various Software Engineering Principles and Database Management concepts like maintaining integrity and consistency of data. Further, this helped me building skills about SQL SERVER 2008, ASP 4.0, HTML, BOOTSTRAP and many other.

IV. APPLICATION

As it is a web-based application, its index page encourages the donor to donate the blood.

Donor can check the status of the blood group just on one click sitting at home.

Seeker can get the information of the desired blood group from the central inventory.

Seeker can get the list of donors’ area wise, blood group wise if the desired blood group is not available in the central inventory.

Seeker can get the information of the blood group available in the blood bank.

The probability of error should be minimal.

Information retrieval should be precise and effective.

V. FUTURE SCOPE

By using the software, I am making and be able to maintain the records properly.

Installing the software and working on it is not a time-consuming process.

Paperwork is avoided.

Admin can manage all user details.

Security is provided due to the presence of login and password.

Many validations at many places to prevent invalid data entries

Admin can change and update the input data easily.

Time will be served.

CONCLUSION

This paper explained the proposed Blood Bank System, which is linked the blood bank with the donors by sending messages to the donor who registered in the blood bank as a constant donor. To inform them of a shortfall in one of the blood groups by his platoon. It characterized by ease of use in organizing the blood donation.

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