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Blood Bank and Donor Management system

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Abstract: The number of persons who are in need of blood are increasing in large number day by day. In order to help people who are in need of blood, my Blood Bank and Donor Management System can be used effectively for getting the details of blood donors having the same blood group and within the same city. With the help of my Blood Bank and Donor Management System people who are having the thought of donating blood gets registered in my Blood Bank and Donor Management System giving his total details. My site also helps people who are in need of blood by giving the details of the donors by searching, if at all there are no donors having the same group and within their own city they will be given the addresses with phone numbers of some contact persons in major cities who represent a club or an organization with free of cost.
Keywords: Antigens, Normalization , Reliability, Security, Blood cells.

Introduction

The process of building systems has always been complex with system becoming larger, the costs and complexities get multiplied. So the need for better methods for developing systems is widely recognized to be effective and the applied model should meet a few basic requirements. The model should be structured and cover the entire system development process from feasibility study to programming, testing and implementation. The model should utilize established methods and techniques like database designs, normalizations and structured programming techniques.

1.1Modules Description:

A module is a software component or part of a program that contain one or more routines. One or more independently developed modules make up a program. The project “BLOOD

BANK AND DONOR MANAGEMENT SYSTEM” consists of two main modules they are,

BLOOD DONOR:

The persons who like to donate blood registers in my site. The person, who is in need of blood searches for the persons having the same blood group and within the city. If he found a donor in his city then he gets the total details of the donor, if he doesn’t find any donor then he is given the contact numbers and addresses of the Life Saving Contact Persons for major cities.

BLOOD GROUP:

Blood group A – has A antigens on the red blood cells with anti-B antibodies in the plasma Blood group AB – has both A and B antigens, but no anti bodies. User can find any blood group from this website. Our bodies contain trillions of red blood cells. Each is covered in an array of proteins and sugars, inherited from our parents, which determine our blood group. We can all be classified into group A, B, AB or O, based on which sugars coat our red blood cells.

Administrator:

This module focuses on the both donor and acceptors. Each member in donor and acceptor is given user id and password, which identifies him uniquely. This option given to Change password, maintain donor details, Maintain acceptor details Update acceptor details, Logout.

Donor:

Each member in donor is given user id and password, which identifies him uniquely. This option given to Change password, find a blood group**,** why donate blood, Logout.

STUDY ABOUT THE SYSTEM

Existing System:

There are certain features limiting the process of the present system. The drawbacks of the present system are listed below. The increase in number of vehicles now a days. The increase in number of accidents now a days. The patients cannot get the information of donors easily

Disadvantages of Basic Scheme:

Without integrating the blood banks will lead to time consuming while searching of a particular group of blood. Without having proper information it is very difficult to supply the blood to the required people.
Information sharing is not possible among blood banks, hospitals about the required blood group in the case of urgency.

Proposed System:

The proposed system, Online Blood Bank site overcomes the drawbacks of the present system. The Blood Bank helps the people who are in need of a blood by giving them overall details regarding the donors with the same blood group and within their city. The advantages of the proposed system are listed below.. The person's time and work is reduced very much which prevails in the present system. The proposed system, Online Blood Bank site overcomes the drawbacks of the present system. The Blood Bank helps the people who are in need of a blood by giving them overall details regarding the donors with the same blood group and with in

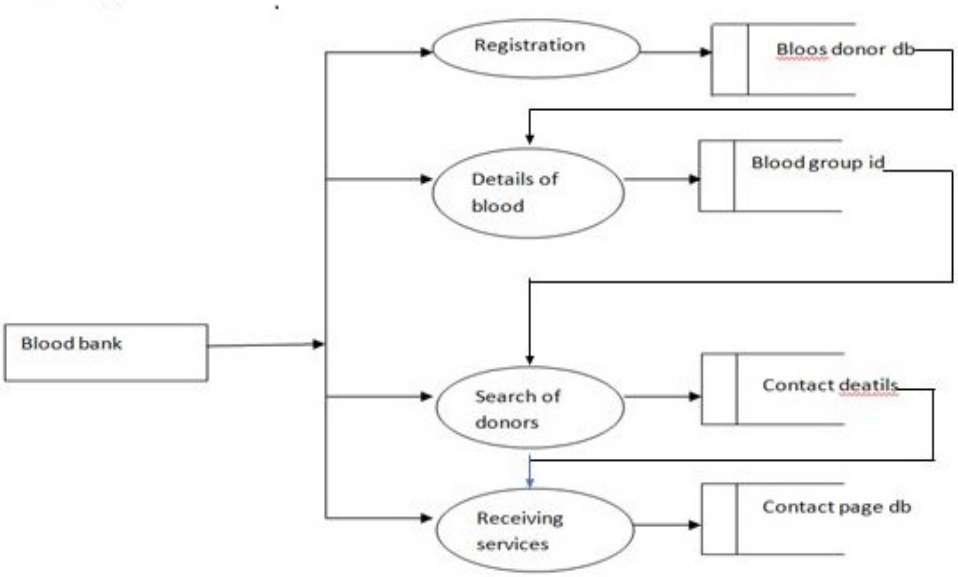
Advantages:

Speed and accuracy there is no redundancy of data.
It will be easily handle .
The proposed method maintenance of schedule erroneous and it is very easy to operate. Reduce the Time spend on the paper work .
The people in need of blood can search for the donors by giving their blood group and city name. It is very flexible and user friendly.

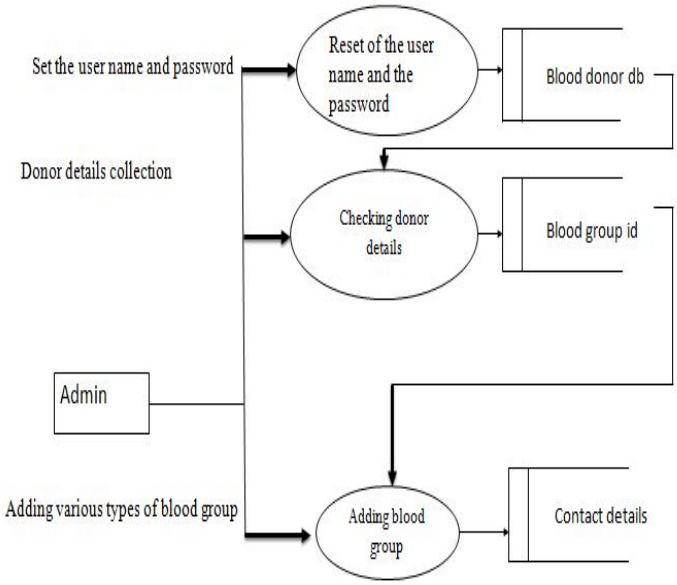
System Flow Diagram
LEVEL-0

LEVEL-1

Donor login



Level -2



SYSTEM IMPLMENTATION

System Implementation is the stage of the project when the theoretical design is tuned into working system. If the implementation system stage is not carefully controlled and planned, it can cause chaos. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the users a confidence that the system will work and be effective.

The implementation stage in a project involves,

Careful Planning investigation of the current system, checking constraints and the implementation.

Training the staffs in the newly developed system.

A software application in general is implemented after navigating the complete life cycle method of a project. Various life cycle processes such as requirement analysis, design phase, verification, testing and finally followed by the implementation phase results in a successful project management. The software application which is basically a Windows based application has been successfully implemented after passing various life cycle processes mentioned above.

As the software is to be implemented in a high standard industrial sector, various factors such as application environment, user management, security, reliability and finally performance are taken as key factors throughout the design phase. These factors are analysed step by step and the positive as well as negative outcomes are noted down before the final implementation.

Security and authentication is maintained in both user level as well as the management level. The data is stored in MySQL, which is highly reliable and simpler to use, the user level security is managed with the help of password options and sessions, which finally ensures that all the transactions are made securely.

The application's validations are made, taken into account of the entry levels available in various modules. Possible restrictions like number formatting, date formatting and confirmations for both save and update options ensures the correct data to be fed into the database. Thus all the aspects are charted out and the complete project study is practically implemented successfully for the end users.

IMPLEMENTATION PROCEDURES

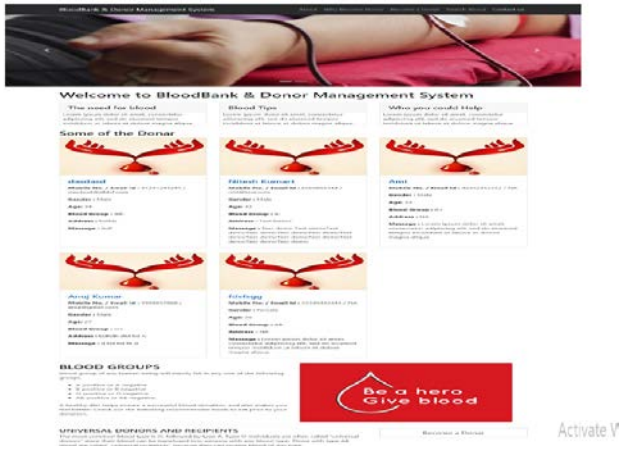
During the software-testing phase each module of software is thoroughly tested for bugs and for accuracy of output. The system developed is very user-friendly and the detailed documentation is also given to the user as online help wherever necessary. The implementation phase normally ends with the formal test involving all the components.

The entire system was developed using the PHP, HTML, JavaScript, Personal Web Server, and MYSQL as back end. The HTML is used to design the web page. The Personal Web Server is used to understand the client's request and to send response to them. The JAVASCRIPT are used for client-side validations so that the user can enter only appropriate input in the input fields. The MYSQL is the back end tool where the database resides. Hence the design of the entire system is user-friendly and simple the implementation has been quite easy.

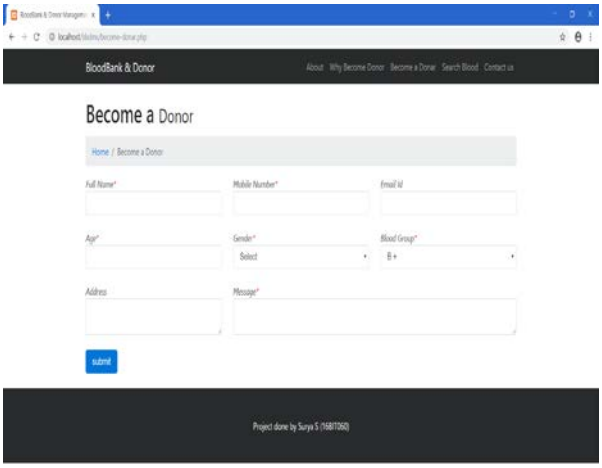
Experimental Results

Main Form Design: **Screens**

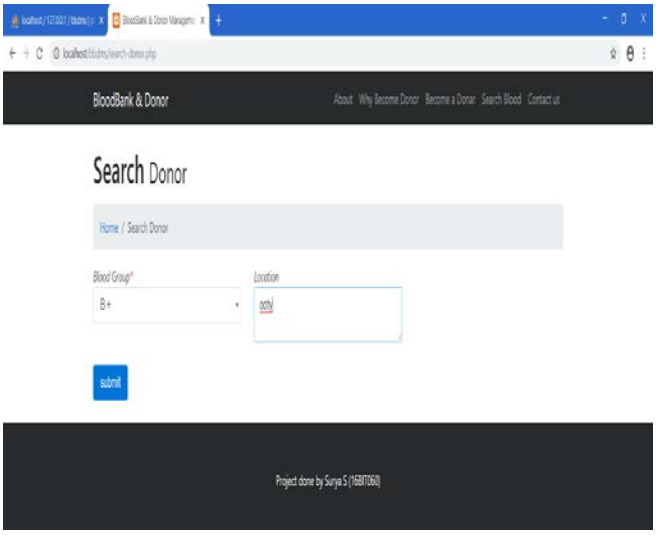
Become Blood donor Page



Become a Donor

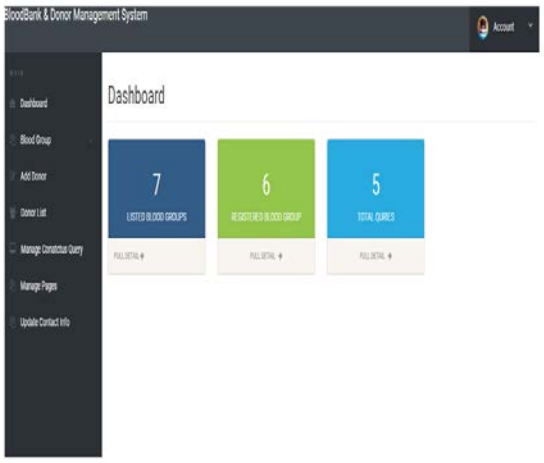


Search Panel



sign in page

Admin Dashboard



CONCLUSION

This project has given me an ample opportunity to design, code, test and implements an application. This has helped in putting into practice of various Software Engineering principles and Database Management concepts like maintaining integrity and consistency of data. Further, this has helped me to learn more about MYSQL, PHP, HTML, JAVASCRIPT, Adobe Photoshop 7.0 and Personal Web Server. The other features, which the Blood bank services provide, can also be incorporated into this blood bank. The encryption standards can also be used to make the transaction more secure. The socket secure layer protocol can also use in implementing the system, the socket secure layer protocol can also use in implementing the system, which gives highest security in the Internet.

SCOPE FOR FUTURE ENHANCEMENT

As there was a little number of contact person's information given, some people may face difficulty in getting blood fast. So, i like to gather more information regarding the contact persons in other cities as well as villages and will provide much more services for the people and help everyone with humanity.

We can give more advance software for "BLOOD BANK AND DONOR MANAGEMENT SYSTEM" including more facilities

Create the master and slave database and structure to reduce the overload

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