

EMERGENCY BLOOD BANK MANAGEMENT SYSTEM

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ABSTRACT

Looking for an online centralized web-portal where blood banks and hospitals can look for donors in their nearby area who will be available in quick time. And also keep record of donor's health report to evaluate quickly.

1. INTRODUCTION

The population of the world is multiplying with each coming year and so are the diseases and health issues. With an increase in the population there is an increase in the need of blood. The growing population of the world results in a lot of potential blood donors. But in spite of this not more than 10% of the total world population participates in blood donation. With the growing population and the advancement in medical science the demand for blood has also increased. Due to the lack of communication between the blood donors and the blood recipients, most of the patients in need of blood do not get blood on time and hence lose their lives. There is a dire need of synchronization between the blood donors and hospitals and the blood banks. This improper management of blood leads to wastage of

the available blood inventory. Improper communication and synchronization between the blood banks and hospitals leads to wastage of the blood available. These problems can be dealt with by automating the existing manual blood bank management system. A high-end, efficient, highly available and scalable system has to be developed to bridge the gap between the donors and the recipients and to reduce the efforts required to search for blood donors.

2. OVERVIEW OF THE SYSTEM

2.1 About Existing System

The existing system is a manual system. In this system if a Blood seeker wants blood, he has to go the hospitals, blood banks or clinics available in his location or nearby. In the same way if donor wants to give blood he has to search for blood donation centers manually. It is very risky process and it will take lot of time. Here Organizations (Hospitals/Blood Banks/Clinics) maintains all the donors/seekers details in the form of books. The manual system gives us very less security for saving data; some data may be lost due to mismanagement.

In this system report generation is very tough means it will take lot of time. It's a limited system and fewer users friendly. Searching of particular information is very critical it takes lot of time. The users cannot able to restrict the information.

2.2 SOLUTION OF THESE PROBLEMS

The development of this new system contains the following activities, which try to automate the entire process keeping in the view of database integration approach.

- User Friendliness is provided in the application with various controls provided by system Rich User Interface.
- The system will make the interaction between the Admin, Organization, Donors and Seekers very quickly which saves lots of time.
- The system makes the overall project management much easier and flexible.
- In this system Donor can search the blood donation centers through online.
- By using this system Donor can make a request to an Organization to give the blood.
- Seeker can easily search the blood available centers.
- The Donor's and seeker's information can be stored in centralized database which can be maintained by the system.
- Seeker can make a request for required blood group to an organization.

- This can give the good security for user information because data is not in client machine.
- Authentication is provided for this application only registered Users can access.
- There is no risk of data management at any level while the project development is under process.
- Report generation is provided.

2.3 About Proposed System

In this system Donor can search the All India All India Blood Donors Helplines Helpline centers through online. By using this system Donor can make a request to an Organization to give the blood. Seeker can easily search the blood available centers. The Donor's and seeker's information can be stored in centralized database which can be maintained by the system. Seeker can make a request for required blood group to an organization. Authentication is provided for this application only registered Users can access. Report generation is provided. The system makes the overall project management much easier and flexible.

2.4 Functional Requirements

- 1) Administrator should have access to all details of Online Blood Bank Management System Hiplines
- 2) While filling the personal information page for any donor, only Name, Region, contact details which could be phone number / email and blood group should be made mandatory. Other details should not be made mandatory. The details of donors should be saved in such a way

- 3) Blood seekers could browse for All India Blood Donors Hiplines in their nearby area
- 4) No user could access any details of donors without being a member of website.
- 5) Only hospitals, blood banks etc should be able to see the contact details of donors (like phone number / email)
- 6) All India Blood Donors Helpline should be allowed to see only the name and region they live in.
- 7) The search for blood should be made flexible.
- 8) Non-members can also look for All India Blood Donors Hiplines or Bloods in any particular banks and then do quick register and make a request for Blood requirements.

2.5 Non-Functional Requirements

- Secure access of confidential data (user's details). SSL can be used.
- 24 X 7 availability
- Better component design to get better performance at peak time
- Flexible service based architecture will be highly desirable for future extension

2.6 No of Modules

1. Administrator
2. Blood Banks, Hospitals, Clinics
3. Donors
4. Seekers
5. Report
6. Authentication
7. Registration

8. Search

Modules Description

Admin:

He is the super user of the site. He can accept the registration of an organizations, donors and seekers. He can add the country, state and city information in to the system. He can generate the organizations, Donors, Seekers reports.

Organization:

An organization must be login in to system with its credentials. It can receives requests from donors and add the donation details into the system. In the same way it can receives the seekers requests and accepts their requests based on the blood availability.

Donor:

He must be login into the system with his credentials. He can make a request to donate blood to an organization. He can view the status of his request also. Finally he can view his blood donation details. He can change his password.

Seeker:

He must be login into the system with his credentials. He can make a request for blood to an organization. He can view the status of his request also. He can change his password.

Reports

Different kind of reports is generated by the system.

1. Donors Report
2. Seekers Report
3. Organizations Report

Registration

The system has a process of registration. Every user need to submit their complete details including user name and password in the form of registration. Whenever a user registration completed then only a user can get log in into the system by using his user id and password.

Authentication:

Authentication is nothing but providing security to the system. Here every must enter into the system throw login page. The login page will restrict the UN authorized users. A user must provide his credential like user Id and password for log into the system. For that the system maintains data for all users. Whenever a user enters his user id and password, it checks in the database for user existence. If the user is exists he can be treated as a valid user. Otherwise the request will throw back.

No. of Users

- Admin
- Organization
- Donor
- Seek

2.7 Input & Output

Inputs

- Admin can accept the registration of donors, organizations and seekers.
- Admin can add the country, state and city details in to the system.
- Donor can make a request to an organization to give the blood.
- Seeker can make a request to an organization to

get the blood.

Outputs

- Admin can view the organizations, donors and seekers requests.
- Organization can view the donors and seekers requests.
- Donor and seeker can view their requests status.
- Admin generates the reports.

3.SYSTEM DESIGN

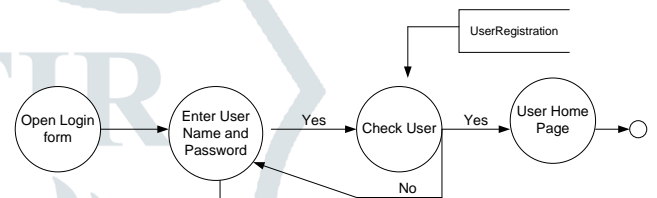


Fig 3.1: Login DFD

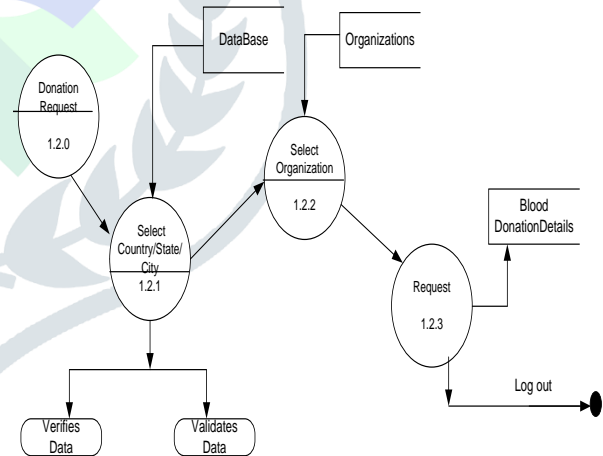


Fig 3.1: Donor DFD

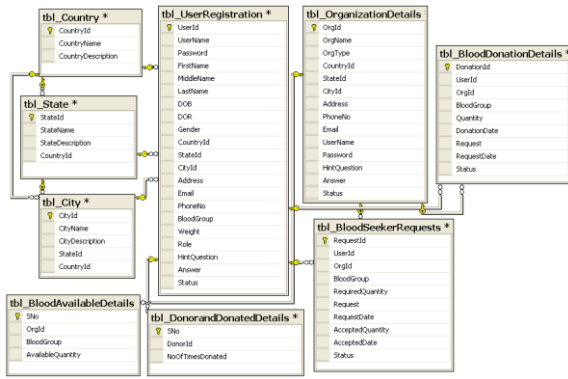


Fig 3.2: ER Diagram

4. OUTPUT SCREEN SHOTS

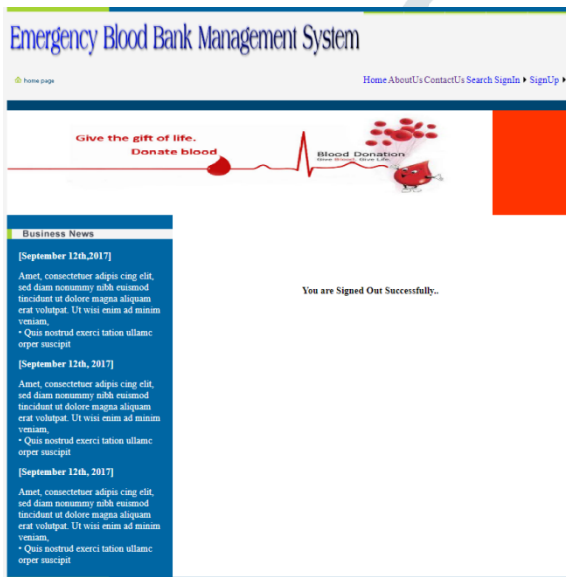


Fig 4.1: Home Page

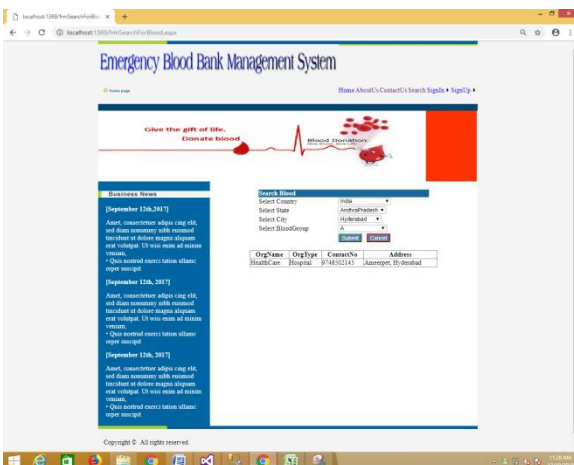


Fig 4.2: Search Blood Page

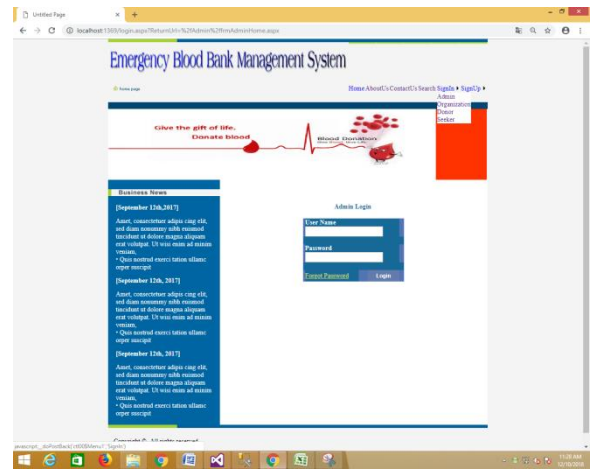


Fig 4.3: Admin Login Page

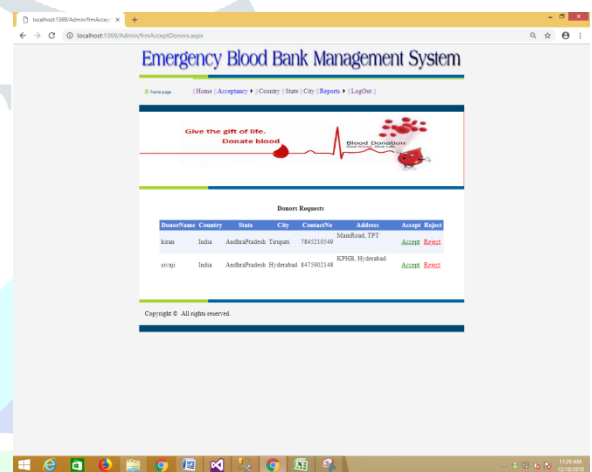


Fig 4.4: Donor Requests Page

5. CONCLUSION AND FUTURE ENHANCEMENT

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 C#.NET web based application and no some extent Windows Application and SQL Server, but also about all handling procedure related with “Emergency 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.

BENEFITS:

The project is identified by the merits of the system offered to the user. The merits of this project are as follows: -

- It's a web-enabled project.
- This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity.
- The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry or updating so that the user cannot enter the invalid data, which can create problems at later date.
- Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent.
- User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him.
- From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned.

That is, we can say that the project is user friendly which is one of the primary concerns of any good project.

- Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database.
- Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time than manual system.
- Allocating of sample results becomes much faster because at a time the user can see the records of last years.
- Easier and faster data transfer through latest technology associated with the computer and communication.
- Through these features it will increase the efficiency, accuracy and transparency.

LIMITATIONS:

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.

6. REFERENCES

- [1] JavedAkhtar Khan and M.R. Alony, "A New Concept of Blood Bank Management System using Cloud Computing for Rural Area (INDIA)", TIT Group of Institute of Engineering, Bhagwant University Ajmer, (RJ) INDIA, International Journal of Electrical, Electronics

[2] A. ClemenTeena, K. Sankar and S. Kannan, “A Study on Blood Bank Management”, Department of MCA, Bharath University, Selaiyur, Chennai-73, Tamil Nadu, India, Middle-East Journal of Scientific Research 19 (8): 1123- 1126, 2014 ,ISSN 1990-9233,DOI: 10.5829/idosi.mejsr.2014.19.8.11202

[3] K M Akkas Ali, IsratJahan, Md. Ariful Islam, Md. Shafaat Parvez, ”Blood Donation Management System”, Institute of Information Technology, Jahangirnagar University, Dhaka, Bangladesh , Department of Computer Science and Engineering, Jahangirnagar University, Dhaka, Bangladesh.

[4] Aware SachinB, Arshad Rashid, Ansari Adil, Bombale R.R., “Web Based Blood Donation System”.

[5] André Smith, Ralph Matthews, Jay Fiddler, “Blood Donation and Community: Exploring the Influence of Social Capital”, International Journal of Social Inquiry, Volume 4, Number 1, 2011 pp. 45-63.

[6] ShyamSundaram,Santhanam , “Real-Time Blood Donor Management Using Dashboards Based on Data Mining Models”, Dept. of Computer Science, DG Vaishnav College Chennai 600106, Tamil Nadu,India.

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