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A Blood Donor Management System Web Application

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ABSTRACT: Blood Donation is a tedious process where it involves lot of manual work with the expense of time. Requesting blood is a highly critical task for the patients who are victims of several kinds of accidents. Their compatible blood types should be made readily available for their further treatment. Blood Donors should also be intimated appropriately for faster blood availability for a specific request of blood. Our project focusses on this blood donation process where Emergency situation, such as accidents, creates immediate and critical needs for specified blood type. The blood bank won't give blood for free unless you provide them another blood. Due to lack of communication between blood receivers and donors, people face problems in the blood transfusion. The donor has to forward the blood request with ease and his/ her privacy should be maintained.

KEYWORDS: online blood bank Management system, blood bank management ,blood donation.

I. INTRODUCTION

Blood Donation is a tedious process where it involves lot of manual work with the expense of time. Requesting blood is a highly critical task for the patients who are victims of several kinds of accidents. Their compatible blood types should be made readily available for their further treatment. Blood Donors should also be intimated appropriately for faster blood availability for a specific request of blood.Our project focusses on this blood donation process where Emergency situation, such as accidents, creates immediate and critical needs for specified blood type. The blood bank won't give blood for free unless you provide them another blood. Due to lack of communication between blood receivers and donors, people face problems in the blood transfusion. The donor has to forward the blood request with ease and his/ her privacy should be maintained.The project "A Blood Donor Assistance Application" is an application that is developed to help patients who are in need of blood.

The existing system involves hospital authorities calling each blood donors whether they are willing to donate blood. This is a time consuming process where requisition of blood is a time critical one. The proposed system involves an application in which the recipient of blood sends a blood requesting notification to all available blood donors. The application is a user friendly one that anyone can access for free cost. The basic idea for this project is to help the donor for the blood. The main idea behind this project is to provide blood timely to the recipient and maintain privacy 0f donors. The request forwarding will be automated . Users will be able to register as donors with geo location information and thus receive an SMS request to donate blood in cases of need . The victim can quickly request blood that enables our application to send SMS and E-mail about user's request to the nearer donors based on geo distance. There will be option to extend the request circle.The main objective of developing this system is to save work and time. The process of blood requisition and blood donation should be fast and reliable. Another thing one has to note is the security of the details of donors. This system mainly focusses on providing privacy to each donor

II. BACKGROUND WORK

The Online Blood Donation management System is to create an e-Information about the donor and organization that are related to donating the blood. Through this application any person who is interested in donating the blood can register himself in the same way if any organization wants to register itself with this site that can also register. Moreover if any general consumer wants to make request blood online he can also take the help of this site. Admin is the main authority who can do addition, deletion, and modification if required.Online Blood Donation management System project is aimed to developing an online Blood Donation Information. The entire Online Blood Donation management System

project has been developed keeping in view of the distributed client server computing technology, in mind. The Blood D
onation Agent is to create an e-Information about the donor and organization that are related to donating the blood. Through this Online Blood Donation management System application any person who is interested in donating the blood can register himself in the same way if any organization wants to register itself with this site that can also register. Moreover if any general consumer wants to make request blood online he can also take the help of this site. Admin is the main authority who can do addition, deletion, and modification if required.Online Blood Donation management System project is designed such that it follows the view of distributed architecture having centralized storage of the database part. By using the constructs of MS-SQL Server and all the user interfaces have been designed using the ASP.Net technologies.The database connectivity is planned using the "SQL Connection" methodology.
The existing system involves hospital authorities calling each blood donors whether they are willing to donate blood. Calling volunteers one by one manually be a time consuming and difficult task in emergency situations. In this existing system, the volunteers contact details are visible publicly. This may affect the volunteer's privacy and may lead to unwanted disturbances.

Drawback
*   More human power
*   More strain in manual labour needed
*   Repetition of same procedure for every request
*   Low security
*   Difficult to handle

III. METHODS

In the proposed system, blood donation process is made easy. The recipient of blood posts the type of blood and required units. The compatible blood donors are notified through SMS and e-mail. This system also has the advantage of providing
privacy to each donor, like one donor doesn't know the details of other donor. Every time when the donor logs in the current location is updated for receiving blood requests. This system also has the advantage of extending blood request if the blood donors are not available within the specified geographical boundary or if the response doesn't arrive within time.

Advantages
*   Privacy should be maintained
*   Free of cost
*   It organize a blood camps

MODULES DESCRIPTION
*   Module 1(DONOR)
*   Module 2(VICTIM)
*   Module 3(BLOOD DRIVE)

In donor module, people who are willing to donate blood enrolls himself/herself for the first time with his/her blood type and with his/her permanent address/location which can be selected via map also. When a blood request arrives, people with compatible blood types are notified. The current location of donor is saved automatically whenever he/she logs in. Donors can also schedule willing days to donate blood so that blood requestor's can contact them in case of emergency or based on the count of blood donors, blood donation drive can be organized in any of their willing days.
In this module, the victim posts the blood type and required number of units. These details of victim will be sent to compatible donors as an SMS and e-mail. Blood Donors based on their willingness can accept or ignore. There is a functionality to extend blood request which will increase the geographical distance between blood requestor and blood donor in case if the response from blood donors doesn't arrive within time or if there is no donor with the compatible blood type.
In blood drive module, the count of volunteers to donate blood on their willing days in an area are consolidated. Based on the count, Blood Drive organizers schedule camps in that area for the donors to donate blood common willing day.

IV. CONCLUSION

This project is developed using HTML,PHP,CSS and is based on the requirement specification of both blood requestor and blood donor. MySQL is the database used in this system. "A Blood Donor Assistance Application" is very useful for people who are victims of accidents where they need blood of compatible types for further treatment. This software is designed with maximum privacy to donors and with the intent to save more time. Since blood requisition is a time critical task, this system allows users to request blood instantly without the need of calling each donor separately. This system also has the advantage of providing privacy to donors by hiding details of other available donors. The system is designed to be user friendly and more GUI oriented.

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