

# Web Based Blood Donation System

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**Abstract-** In web based blood donation system; it is mainly used for maintaining the stock record of the blood. In today's system first it is manual system and also it when person requires the particular type of blood and if that type is not available in that blood bank then it is time consuming to arrange the blood from other blood bank it may affect the patient health because time is very important in accidental cases. So in web based blood donation system is best for checking whether particular type of blood is available in stock or not and also it gives the location weather that available.

## I. INTRODUCTION

Web based blood donation system maintains the database of stock in centralized server system. All the blood bank update the regular stock on web server and when someone require any type of blood that person can easily check whether the blood is available and also cost. It will helpful for maintaining the database as well as cost so that no one will get more cost for the blood bag. Each hospital maintain the record of patient and record of blood bank so it is easily available. The main benefit of the web based system is to maintain the record and simplicity for the person for checking the availability of blood. Manual process is very time consuming process so by using web based system we can improve the clarity as well as simplicity of the work.

## II. IN TODAY'S SYSTEM

Blood donation divided into groups based on collected blood. An allogeneis donation is when donor gives blood for storage at a blood bank. Second in Directed donation, when a person or family member donates blood to a specific individual. Directed donations are relatively rare when an established supply exists when a person has blood stored that will be transfused back to the donor at a later date, after surgery, that is called as autologous donation. The blood that is used to make medications can be made from allogeneic donations or from donations exclusively used for manufacturing.

Blood donation actual process varies according to the laws of the country, and recommendations to donors vary according to the collecting organization. The World Health Organization gives recommendations for blood donation policies, but in developing countries many of these are not followed. For example, the recommended testing requires laboratory facilities, trained staff, and specialized reagents, all of which may not be available or too expensive in developing countries

## Obtaining the blood

In this there are two main methods of obtaining blood from a donor. The most frequent is to simply take blood from a vein as whole. This blood is typically separated into the parts, usually red blood cells and plasma, the most recipients need only a specific component for transfusions. A typical donation is 450 milliliters of whole blood, though 500 milliliter donations are also common. Historically, blood donors in India would donate only 250 or 350 milliliter and donors in the China would donate only 200 milliliters, though larger 300 and 400 milliliter donations have become more common.

The other method is to draw blood from the donor, separate it using a filter, store the desired part, and return the rest to the donor. This process is called apheresis, and it is often done with a machine specifically designed for this. This process is especially common for plasma and platelets.

## III. BLOOD TESTING

Donor's blood type must be determined if the blood will be used for transfusions. The collecting agency usually identifies whether the blood is type A, B, O, or AB and will screen for antibodies to less common antigens. More testing, including across match, is usually done before a transfusion. Group O is often cited as the 'universal donor' but this only refers to red cell transfusions. For plasma transfusions the system is reversed and AB is the universal donor .

Donated blood is tested by many methods, but core tests recommended by the World Health Organization are these four:

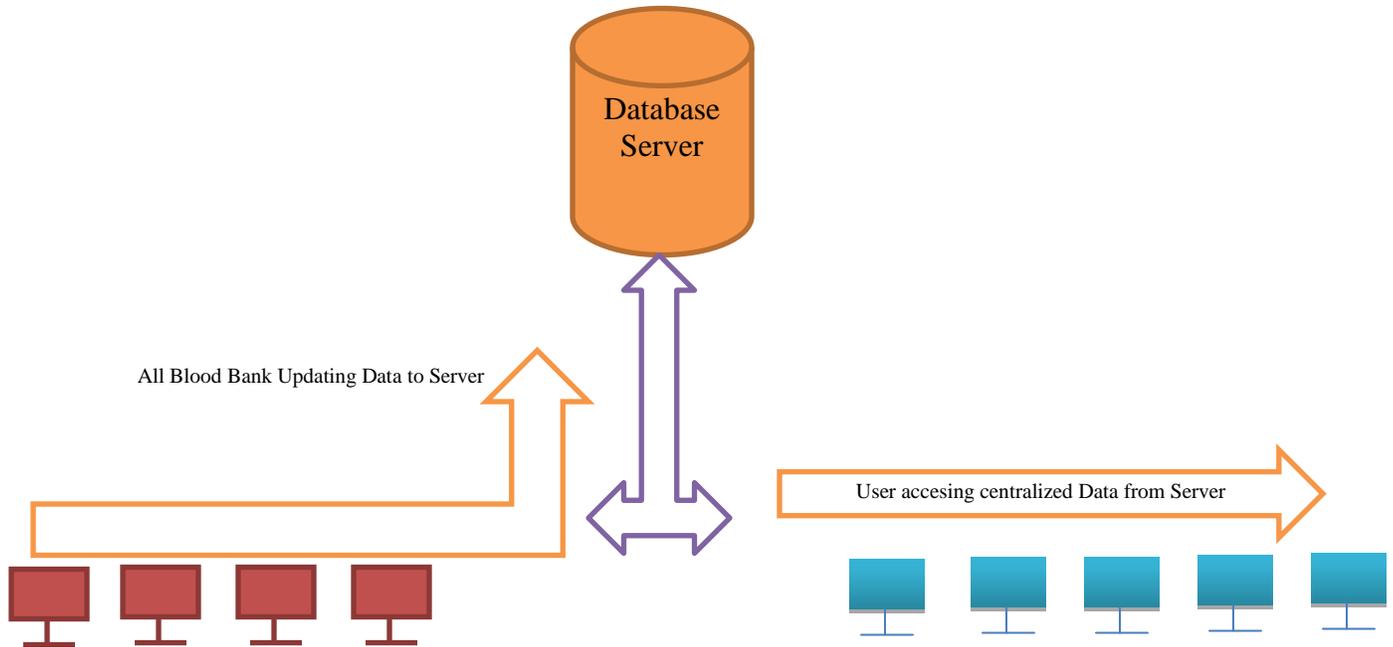
- Hepatitis B Surface Antigen
- Antibody to Hepatitis C
- Antibody to HIV, usually subtypes 1 and 2
- Serologic test for Syphilis

In 2006 WHO reported that 56 out of 124 countries surveyed did not use these basic tests on all blood donations.

## IV. PROPOSED SYSTEM

In web based blood donation system simple GUI (Graphical user Interface) is created. All blood bank will update the regular data on web site so that the stock is maintain on the centralized server. By using a unique ID, issuing of blood bag is done.

### Diagrammatic representation -



**Fig. Representation of web based donation system**

#### V. ADVANTAGE OF SYSTEM

First advantage is use of technology for maintaining the record and easily available the resource. Reduce the paper work and checking availability and keeping online record of stock and money required for blood.

#### VI. CONCLUSION

This system is easy to maintain the stock of the blood and also provide the easy way for making available blood to anywhere. Person can easily check the availability so that there is no shortage of blood and by checking whether it is available they can buy from that blood bank and also it reduce the time.

#### REFERENCES

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- [3] Heim MU, Mempel W (1991). "[The need for thorough infection screening in donors of autologous blood]"
- [4] "World Blood Donor Day". World Health Organization. Retrieved 2008-06-01.
- [5] "Give Blood". NHS Blood & Transfusion. Retrieved 2012-01-04. Blood is something we all expect to be there for us when we need it, yet only 4% of us give blood.

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