



BLOOD BANK ONLINE MANGEMENT SYSTEM

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1.ABSTRACT- As you know, this is very necessities for us. Maximum countries don't have enough do not to donate required blood. In paper we found the best way to overcome this problem. Our motive to fulfillment of required blood and search the information about donor. E.g., If someone wants the donate the blood then they need only register on our website and fill the details like email address, name, contact number, Blood group details and location etc. If the some wants the blood they need to search by location and blood group they will get all the details about donors. There is also a calling and report option for more information. This project helps us to keep the data safe and for longer time. Also hold the information and recipients and donor with all the contact details. It is having distributed architecture and centralized storage. Also, it will help to use of machine learning, Internet of things and Artificial Intelligence. Using this technology application will be very fast and too advance. This application will be developed using Python (Django, Taglit), HTML, CSS, Bootstrap, SQL lite and slightly JavaScript.

KEYWORDS: ML, AI, IoT, BBOMS, BBMS, Blood Bank

2.INTRODUCTION- This web application is used to contains the information of blood and this stored blood is tested blood. Suppose needs of blood then the needy person can reregister on web site and they can get the information about the blood bags and blood group. This website provide this facility all the time if anyone gets any issue in the website they can write us on given emailed this website help to track the information smoothly and very easily and provide the support all the time .there is a process for all types of users for example donor wants to donate the blood then he/she have to register on the website with first name, last name, Email address phone no. and address ,user name, password, Blood group then click on the submit button . This information will insert in the application database. If Donor wants to login on the application, they need to enter the username, password.

System will check entered User name and password if the username and password are correct. It will automatically redirect on home page and can access all the information about the application. There is another scenario is that suppose recipient needs the blood then recipient have to register on the website with user type as recipient and have fill the mandatory fields on the registration page like name, email address, phone no., Email id etc. Then they will click on the search donor option and fill the information like location and blood group. And then they have to click on the search button. Then they will find all the details about the donor in tabular format also if they want to get the information about the Blood bank, they will click on the blood bank option on home page and have to enter the nearest location then they will find all the Blood bank details in the tabular format which is available in searched location.

3.BACKGROUND- This application is like where you can search the store the blood and can search required blood group over the application and get the particular blood group and availability of blood after the fill registration form. This is very helpful to save the lives and.

4. OBJECTIVE

Our project motive is that to create the web application for blood bank management system.

It provides following facilities:

- 4.1.** User can verify the availability of bags of blood with respective blood group.
- 4.2.** It helps us for good supply - chain and storage of blood bank.

5.APPROACH

Project approach is that when someone need a blood bags of required blood group, they can easily search on our website for blood donor and this application serve many facilities like to register the user or donor on website and anyone can search the blood and find the donor details.

5.1 GOALS

Our project goals are as below:

- ✓ Reduce the manual work.
- ✓ Enhance the facility of existing system.
- ✓ User can search the blood in nearest city.
- ✓ Web application very simple and easy to use.

5.2 SCOPE

- ✓ On the application user can easily access the available blood information.
- ✓ There is a facility to add more donor frequently.

6. MODULES

6.1 BLOOD TYPE

This application provides the facility to those people who are looking for a blood and wants to donate the blood for others. We have covered many of the blood group for searching.

6.2 AREA WISE SEARCH

Develop the search option for the user who are looking for blood. It will help to get the blood in urgent situation and can get it in better way. It will save the people lives.

6.3 DONOR REGISTRATION FORM

We have integrated a form for donor parties to register themselves as donors. When you will click on registration button the form will open and have to fill name, blood group, email, contact, city, etc. After filling all the details, user can easily be registered by themselves.

It is having distributed architecture and centralized storage. Also, it will help to use of machine learning, Internet of things and Artificial Intelligence. Using this technology application will be very fast and too advance.

7. CHALLENGES AND LIMITATIONS

7.1 Privacy and data security:

We have taken care of data privacy and data security and we used like data retention, data storage and policy of data security to secure PI data.

7.2 Technical infrastructure and connectivity:

Comprehensive automated blood management systems powered by the latest web technologies, data analytics, Machine Learning (ML), and Internet of Things (IoT) devices are being increasingly used by blood collection and transfusion centres.

7.3 User adoption and acceptance:

The first stage of effectively using technology is acceptance. This is the stage when the user acknowledges that technology has a role to play. This does not mean that user is going to use that device.

8. RESULT

This web application will help the recipients to search the required blood group in your city and they can easily get the information about the donor and the availability of blood bags, on this application three types of users can come like Recipients, donor and administrator, Donor can register with the user type as donor and go on the location to donate the blood. And other is recipients – Recipients can register with the user type as recipients and last is the admin that will be handle the application from the backend. All process is very smooth and very easy to handle from the backend as well as from the frontend perspective.

8.1 RESULTS OF THE WEB APPLICATION

Fig.1 Registration form

Description: On clicking donate button this form will open. In this form there are various fields like name, blood group, email, contact, and city. After filling all the details, a person can easily register.

Fig.2 Blood Donor Form

Description: On Clicking Blood Donor button (heart ♥), the above form will open. This form contains fields like blood group and city name to search a person with their blood group and city name on clicking the search button.

9. RESULTS AFTER IMPLIMENTATION

9.1 B+ Blood Group Donor Details

Fig.3 Registration Form

Description: After filling the details, click on the register button for registration.

Be the reason for someone's heartbeat. A single drop of blood can make a huge difference. Stay fit and eat right and donate blood because once a blood donor, always a lifesaver.

Blood Group: B+

City Name: Bulandshahr

Donate Search

Warning: Do not pay any amount to any person promising supply of blood packets or arranging donors.

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Fig.4 Blood Donor Page

Description: After filling the blood group and city, click on the search button. The donor information is shown.

9.2 A+ Blood Group Donor's Details

Registration Form

Name: Dolly Sharma

Blood Group: A+

Email: dollysharmamail@gmail.com

Contact: 7505900284

City: Noida

Register

Warning: Do not pay any amount to any person promising supply of blood packets or arranging donors.

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Fig.6 Registration Form

Description: After filling the details, click on the register button for registration.

Be the reason for someone's heartbeat. A single drop of blood can make a huge difference. Stay fit and eat right and donate blood because once a blood donor, always a lifesaver.

Blood Group: A+

City Name: Noida

Donate Search

Warning: Do not pay any amount to any person promising supply of blood packets or arranging donors.

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Fig.7 Blood Donor Page

Description: After filling the blood group and city, click on the search button. The donor information is shown.

1 donor found in Bulandshahr...

Jyoti Mahur	Active	9759129132	Call Report
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Warning: Do not pay any amount to any person promising supply of blood packets or arranging donors.

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Fig.5 Donor Page

Description: After click on search button, it displays the one donor in BULANDSHASHAR with her name and contact number.

1 donor found in Noida ...

Dolly Sharma	Active	7505900284	Call Report
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Warning: Do not pay any amount to any person promising supply of blood packets or arranging donors.

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Fig.8 Donor Page

Description: After click on search button, it displays the one donor in Noida with her name and contact number.

10. FUTURE DIRECTIONS AND IMPROVEMENTS:

10.1 Integrating with mobile applications and wearable devices:

As we know pharma sector is increasing gradually so we need many of the device to track the records, there should be system can hold the information of patient and can give the facility to users and the customers Also It will help to improve the quality of lives.

10.2 Artificial intelligence and predictive analytics:

Using AI-based predictive analytics solutions, the healthcare sector can block high-risk activity, monitor their data in real-time and implement multi-factor authentication (MFA) to enhance cybersecurity.

11. CONCLUSION

Under this paper, we are aware of the today's generation that Maximum countries don't have enough do not to donate required blood. In paper we found the best way to overcome this problem. Our motive to fulfillment of required blood and search the information about donor. E.g., If someone wants the donate the blood then they need only register on our website and fill the details like email address, name, contact number, Blood group details and location etc. There is also a calling and report option for gathering more information. This paper is based on web application that is very beneficial for those who are not able to arrange the blood at right time for the patient. Due to which, the patient has to face so many difficulties at the time of disease from which he/she has suffered. So, to overcome from this problem, we have made this web application so that anyone can registered as donor to donate the blood to the needy person. The person who wants the blood he/she can call to the donors who has registered in

this app. So that he/she will get the blood as soon as possible. This application is time consuming and easily usable.

12. REFERENCE

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