Online Blood Bank Management System

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Abstract: *The purpose of the blood bank management system is to automate the existing manual system by the help of computerized equipment, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy access and manipulation of the same. The required software and hardware are easily available and easy to work with. Blood bank management systems, as described above, can lead to error-free, secure, reliable and fast management systems. It can assist the user to concentrate on their other activities rather to concentrate on record keeping. Thus it will help organizations in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant while being able to reach the Information.*

Keywords: Blood Bank

I. INTRODUCTION

Donation Management System is a web-based system used by the Blood bank. The system serves as a medium for the public to increase their awareness and to promote the importance of blood donation especially in saving lives. The system also provides many functions for the hospital staff to manage the blood packets and campaigns that have been created. This system also has the ability to keep track of donor records and the status of blood stock in the blood bank. Besides that, all information has been kept in the database and the user who wants to retrieve it is restricted only by the authorized user. A blood donation is a process whereby a person voluntarily has blood drawn to be used for future transfusions when in need at hospitals for treatment procedures that require them. Donations may be of whole blood (blood drawn directly from the body) or of specific components of the blood; such as red blood cells, white blood cells, plasma, and platelets. Blood banks often participate in the process of collecting blood and other procedures such as managing stocks, approving blood requests and updating donation information.

II. PROBLEM STATEMENT

Currently, the computer-based in blood donation management has not widely used in India ostly in rural area. Mostly, it is done manually. The first problem is to search for blood donation records. Staffs of the hospital have to search one-by-one and it may takes a lot of time. Besides that, the paper records can be lost or undefined. Donors also faced the same problem for their donation records recorded in Certifcate. Secondly is about location of blood donation campaign and planning. The staffs of the hospitals are having difficulty to make report for total blood packet by monthly basis. Missing and duplicate blood donation information records make the count inaccurate and this will be problem to detect critical blood demand.

The following problem arises when using a typical blood bank's existing system:

- Personal profile accessibility: The donor's information can only be updated by the administrators of the blood bank. A donor can update their information by calling, faxing, e-mailing, but not by themselves. This is a waste of time just for updating a piece of information and it may be troublesome for some donors.
- Donation record accessibility: The donor ID card is the only tangible evidence that contains the donor's recent donation records, if the card gets lost, donors may find it difficult to schedule their next appointment since they are not able to see the last time, they had donated blood.
- Blood stock management: Blood banks are required to maintain account of blood bags in the inventory. This increases with each blood donation recorded in our system, and decreases as they are checked out upon hospital requests.

III. LITERATURE SURVEY

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IV. PROJECT SCOPE

The proposed system will provide manage day to day blood donation managing information process easily.

The system functions and features of our system will include the following:

1. Registration: This function allows the donor and administrator to register as a user to interact with the system. The system requires the user to login before viewing and editing any information.
2. View and edit information: online Donors are allowed to view their blood donation records online by their given account. They can also edit their personal information through the system.
3. Data is input by the Administrators: The donor's information and donation records can be sent from the hospital to the administrator. The administrator is responsible for keying the received data into the system.
4. Blood requests: The hospital can request blood via e-mail and by calling to the blood bank.

V. SYSTEM IMPLEMENTATION PLAN

The implementation phase brings the project to the operational level. During this stage, all the activities defined within the project master plan are performed. Throughout this phase good communication between the project stakeholders is crucial, especially when facing unexpected issues that may jeopardize the project. Validation activities are important in order to ensure that any critical issues are identified and can be rectified in a timely manner. 14 Business processes that will be affected by the project, including the quality management system, must be updated. The business continuity plan will need to be extended to cover all aspects critical to the running of the CIMS, including recovery from infrastructure failure, network downtime or computer system failures. Before releasing the CIMS for operational use, it is essential to ensure that the deliverable corresponds to the project expectations and operates effectively with related business processes. Any open issues should be highlighted and approval for release can only be given once these have been addressed or determined to be non-critical. The go-live of the CIMS needs to be performed in a manner that ensures continuing safe operation of critical business activities.

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VI. SYSTEM ARCHITECTURE
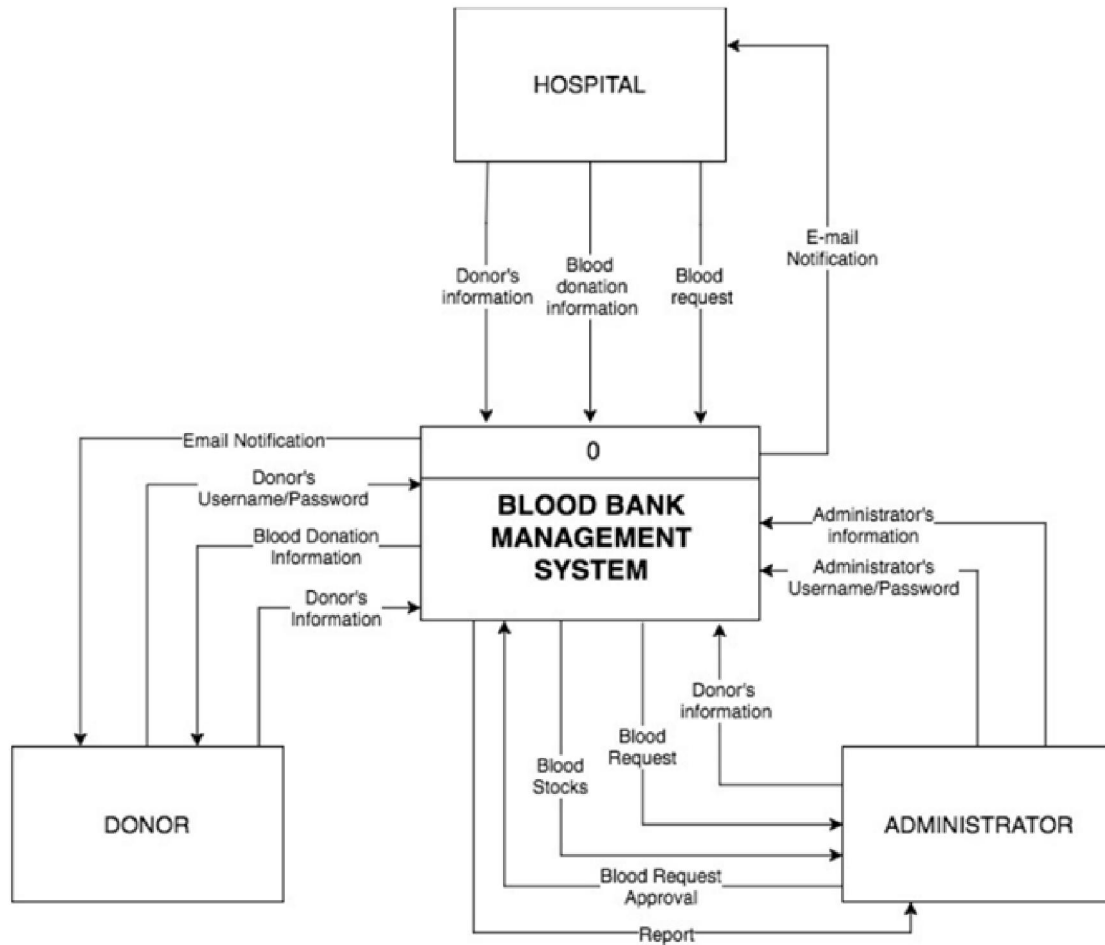
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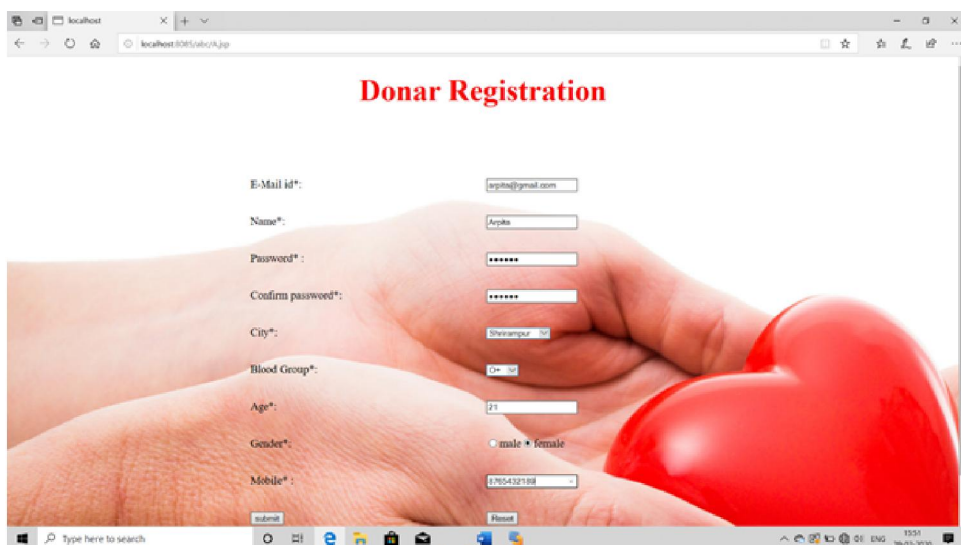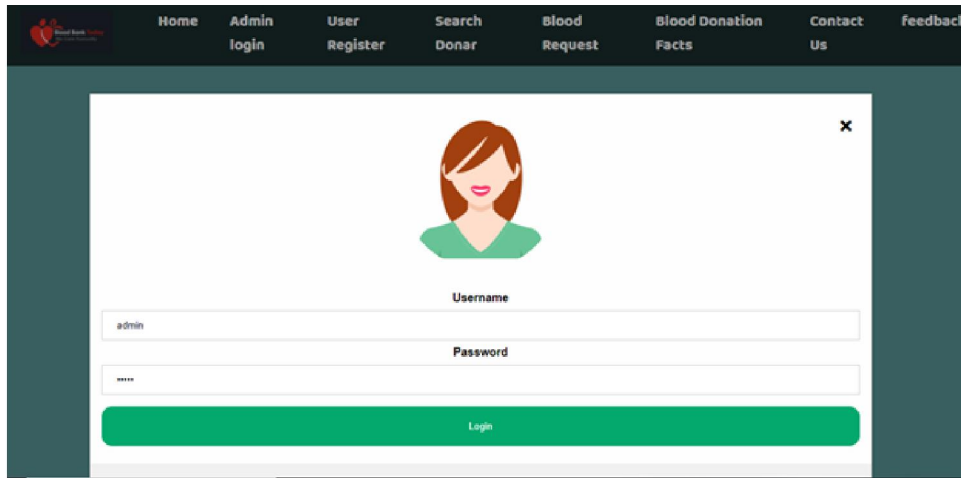
VII. ADVANTAGES

The blood bank management system provides a unique identification number to the donor at the time of the blood donation camp. This number will help the donor in subsequent future correspondence. Bagmo blood bank software supports Fingerprint and Aadhaar Card numbers as a unique identification number.

- Blood banks can appreciate the donors by checking their previous donations.
- Blood centers can provide a printed certificate for voluntary blood donors.

The blood bank software enables the patients to get details of the required blood group from the central inventory.

- A centralized blood bank information helps the patients to get the list of donors area-wise or blood group-wise if the blood group required is not available in the central inventory. Hence, a fast arrangement of blood is possible.
- The main advantage of a blood bank management system is easy and effective information retrieval. Hence, the staff can view precise information quickly.
- The staff can now store all the details in the blood bank management system. Therefore, they can get rid of the manual procedures.
- The blood monitor from Bagno reduces the error probability to a minimum.
- The Blood Monitor dashboard lists the blood bags that are nearing the expiry date and those that are expired. Therefore, the staff can manually discard those units which have become unhealthy due to some technical fault. Also, it will prompt the in-charge to consider the soon expiring blood bags for upcoming transfusions, thereby preventing wastage.

As said before, the software generates a unique identification number for each donor. After that, this number helps blood banks track the donor donations and retrieve donor details

VIII. CONCLUSION

Convenience and time saving:

This is definitely the most convenient way for time saving. In any type of system manually take more time for user work. But this application is less time consuming & see online blood information at any time.

Since we have developed system for a online blood we have to adapt their standard. Although the system is not build by a single person, these are building by a team or several teams. But I have tried by best to make this system all purpose user friendly.

This study concluded that online blood bank management system is much better than the manual system. The findings showed that respondents prefer to use online blood bank management system rather than the manual system because it offers many advantages and benefits that lead to its effectiveness, and efficiency. Because of the increased confidence on the users on the system, it can be concluded that the online blood bank management system enhances blood transfusion safety because it provides better ways of handling the various processes in blood bank.

IX. FUTURE SCOPE

Adding following future enhancement in the system are as follows.

- Create attractive separate web sites for each branches using data collect in current version
- Create appointment booking using mobile app
- Enhance the features of the system
- Need to add more feature location near map
- Want to create separate video session in the web site. (How the blood donating to blood transfusing things works)
- To provide a stronger platform for the users to look at the closest blood donors, hospitals, blood banks anywhere as well as anytime so that they can connect there easily.

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