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Research Paper

# WEB-BASED BLOOD REQUISITION SYSTEM WITH USER SIGNATURE

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The intention of this project is to shorten the time delay in searching the hospital for blood availability. The fingerprint scanner is used to scan the fingerprint of a particular person and the information is displayed by matching the fingerprint that is scanned with the already stored information in database. When the information is displayed the blood group is noted and requested to the blood bank for the availability of blood in the nearby hospital. Thus the hospital name can be displayed and the patient can be taken to the particular hospital. The major merits is that the efficiency of data communication within the blood bank can be improved and also the response time for each blood demand request can be reduced. The project aims to develop a web-based system to manage blood requisition and to retrieve the signature based information.

**Keywords:** Fingerprint scanner, Database, Online

## INTRODUCTION

Blood bank has a major task to collect blood from donors, monitor blood quality and supply, and distribute blood and blood components to hospitals within the network. Blood distribution is an important activity within this blood supply chain. If the blood bank is able to deliver blood supply to its respective demand in a timely manner, patients' lives will be saved. Nowadays, many regional blood banks in Thailand confront. With ineffective communication channel and insufficient information to fulfill its obligation. Thus, this leads to an inaccurate blood distribution and a waste of time, which can be harmful to patients with critical conditions. It is our goal to develop a

web-based system to manage blood requisition within the blood supply chain. The system was designed to cope with this problem. The main objective is to improve the efficiency of data communication within the supply chain to reduce response time for each blood demand request. We also focused on managing blood inventory at each blood bank effectively. The results have shown that the proposed system helps enhancing the communication among blood partners within the supply chain network. The blood bank staffs are able to fulfill blood demand request in a timely manner. Blood donation and transfusion service is an indispensable part of contemporary medicine and healthcare. As a consequence, it

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is of vital importance to coordinate and administer various activities involved in blood donation and transfusion service. Nevertheless, blood management has been recognized as a challenging task: the life-threatening nature of blood products entails the punctilious administration while its perishable nature necessitates the timely processing. At the same time, the decentralized affairs involved in this procedure further complicate the effective administration of blood donation and transfusion service. Fortunately, such terrific challenge has been considerably alleviated with the development of information and computer technology. As a matter of fact, many successful stories have been reported in the field of computerized management of blood donation.

#### **A) Specific role play of blood**

- Red blood cells- transport oxygen around the body and remove carbon dioxide and other waste products.
- White blood cells-are part of the immune system and help fight infection.
- Platelets help the blood to clot to stop bleeding.

#### **B) Types of blood**

Blood having four types,

**Group A-** has A antigens on the red blood cells with anti-B antibodies in the plasma.

**Group B-** has B antigens with anti-A antibodies in the plasma.

**Group O-** has no antigens but both anti-A and anti-B antibodies in the plasma.

**Group AB-** has both A and B antigens but no antibodies.

## **PURPOSE OF BLOOD BANK**

Online Blood Bank is aims serving for human welfare. We have all the information, you will ever need. Many people are here for you, to help you, willing to donate blood for you anytime. We have done all job, rest is yours search the blood group need. It can help us by registering on Online Blood Bank if you are willing to donate your blood when needed. As a proud member of Online Blood Bank and a responsible human being, you can help someone in need. So donate blood in online and registered.

## **EXISTING BLOOD BANK**

To find person donor at time is difficult. A SMS based system or simply internet based database system. Connect to the internet to look into the online blood database system. Immediately connected to the donor. This kind of a system is more advantageous compared to present systems available as immediate contact with the donor is provided every time. This helps in getting a immediate response rather than a SMS based system or simply internet based database system. An immediate fulfillment of the blood requirement made possible through this system can help same a number of human lives.

## **DISADVANTAGES**

- Time delay
- To find the availability it difficult.

## **PROPOSED BLOOD BANK**

Finger print technique is used to find the blood group of a particular person. Fingerprint upload and medical information are stored in the database. Easily save person life. A technique is used to identify the blood group of a particular person by using a fingerprint scanning and the

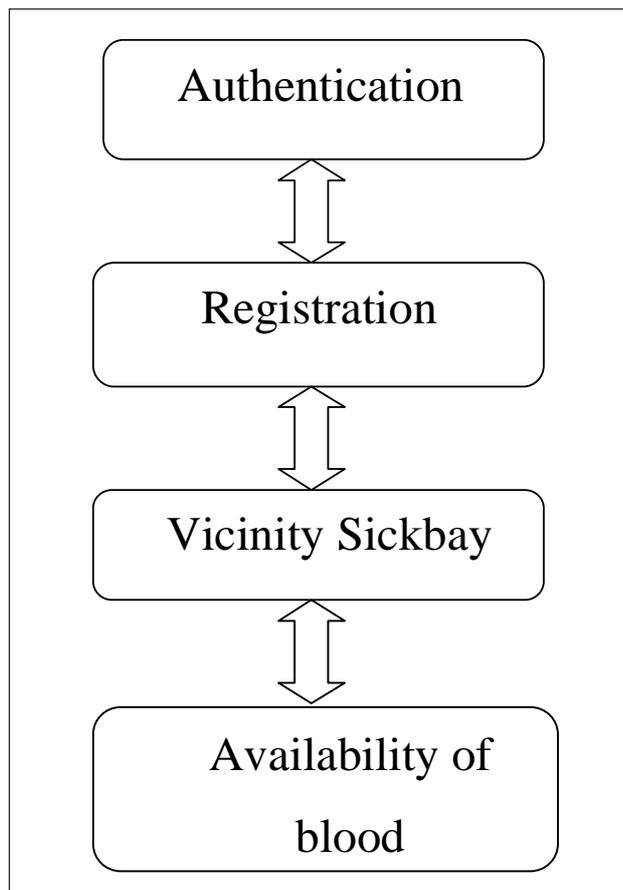
medical information and stored in the database. By using this technique we can save time and a person life.

### PROCESSING STEPS

- Home
- Authentication
- Registration
- Vicinity Sickbay
- Availability of blood
- Admin

### FUNCTIONAL BLOCK DIAGRAM

Authentication module new user going to register their details and uploading their information. So



registration user can't access this service. In this module, the server enters the values in the text fields in the registration form, and then authorized person detail to store entire detail about the particular is included into the server. In this module to register for the user detail based on the required field and uploads the signature and photo for a individual person. In this module find the availability based on the finger print and if the person in already registered. The full information about the person and their blood group type and find which hospital the blood is avail. In this module the detail information about the blood availability in the hospital based on the type of blood wants immediately and the hospital to find were nearby place to reach quickly and save immediately.

### CONCLUSION

All are well know blood is a primary necessity of life. There are lots of scenarios where immediate availability of blood can save human lives. This ensures that automatically the nearest donor is contacted and immediate fulfillment of blood requirement is done. In other similar systems, there is no such provision, which again adds on to the delay in getting a donor. In this project makes one step in this direction. Online database aided with automatic check routing facility can is an alternative choice for immediate fulfillment of blood requirements.

### REFERENCES

1. Qadeer M A and Imran A (2008), "Asterisk Voice Exchange: An Alternative to Conventional EPBX", *International Conference on Computer and Electrical Engineering, ICCEE*.
2. Kapicak L, Nevlud P, Zdralek J, Dubec P,

- Plucar J (2011), "Remote control of Asterisk via Web Services", 34th International Conference on Telecommunications and Signal Processing (TSP).
3. Voznak M, Kapicak L, Zdralek J, Nevlud P and Plucar J, "Multimedia services in Asterisk based on VoiceXML", *International journal of mathematical models and methods in applied sciences*.
  4. Peter Marbach, Oliver Mihatsch, and John N Tsitsiklis (2000), "Call Admission Control and Routing in Integrated Services Networks Using Neuro-Dynamic Programming", *IEEE Journal on selected areas in communications*, Vol. 18, No. 2.
  5. Sripanidkulchai K, Shu Tao, Zon-Yin Shae (2010), "DA VINCI: A tool to improve VoIP call routing configurations", *IEEE Network Operations and Management Symposium (NOMS)*.
  6. Bing-Nan Li, Taipa Ming-Chui Dong Vai M (2005), "From Codabar to ISBT 128: Implementing Barcode Technology in Blood Bank Automation System", 27th Annual International Conference of the Engineering in Medicine and Biology Society, IEEE-EMBS.
  7. Spyropoulos B, Botsivaly M, Tzavaras A, Spyropoulou P (2009), "Towards "digital blood-banking"", ITU-T Kaleidoscope: Innovations for Digital Inclusions, K-IDI.
  8. Adetunji I A and Larijani H (2008), "Routing with a bandwidth based algorithm in virtual call centres", *IEEE Network Operations and Management Symposium, NOMS*.
  9. Meza M and Tasic J F (2005), "Support of the blood transfusion diagnostic process with telemedicine", *The International Conference on Computer as a Tool, EUROCON*.
  10. Soo-Jung Kim, Sun K Yoo, Hyun-Ok Kim, HaSuk Bae, Jung-Jin Park, Kuk-Jin Seo and ByungChul Chang (2006), "Smart Blood Bag Management System in a Hospital Environment", *International Federation for Information Processing*.



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