

BLOOD BANK MANAGEMENT SYSTEM

(BBMS)



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

DECLARATION


BLOOD BANK MANAGEMENT SYSTEM

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STUDENT :  Date: 24 AUGUST 2017
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I hereby declare that I have read this project report and found this project report is
sufficient in term of the scope and quality

for the award of Bachelor of Computer Science (Database Management) With
Honours.

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BLOOD BANK MANAGEMENT SYSTEM

(BBMS)



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This report is submitted in partial fulfilment of the requirements for the Bachelor of
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SESI PENGAJIAN: 2017/2018

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**Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

DEDICATION

To my beloved mother and father whom I love so much,

Study in IT is hard.

This is for you.



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Assalamualaikum w.b.t. It is a new knowledge that I got when working on my final year project. A special thanks to the committee for Projek Sarjana Muda I (PSM I) whose help stimulating suggestions and encouragement, helped me to coordinate my project especially to develop the Blood Bank Management System (BBMS). Besides, for all the resources provided by the committee of PSM I especially the project documentation for how to write the report.

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ABSTRACT

Blood Bank Management System (BBMS) is a system which is proposed to improve the efficiency in managing blood donated by the donor. The hospital is still used manual system and there are problems in managing the donors' records. The records of the donor is not be kept safely. This problem will lead to the missing of donor's records due to human error or any disasters. Besides, errors might occur when the staff keeps more than one record for the same donor. Since there is also no centralized database used to keep the donors' records, the data duplication of the donor's record might be occur. In addition, there are also problems in keeping track of the actual amount of the blood in the blood bank. There is also no alert available when the blood in the bank has expired. Because of that, this system is proposed. The primary aims of this project is to enhance the efficiency of blood department in the hospitals. BBMS is a computer-based system. The user of this system is the administrator and staffs who worked at the blood bank. This system will save the information of the staff, the donors and the receiver of the blood. With this system, the records of all donors and receiver of blood and their history are store in one centralized database and thus reducing duplication of data in the database. The record of donation is maintained by the system. The blood bank staff can manage the blood stock. All the blood will be stored in the blood bank according to the blood type. When blood is removed from the blood bank to a receiver in need, the quantity of blood is updated. The system will also provide an alert system to the staff whenever the blood when the blood in stock has expired. In the other hand, the system is able to generate pre-defined reports such as the list of donor, volunteers, the blood receiver and the amount of blood donated according to the blood type.

ABSTRAK

Sistem Pengurusan Darah Bank (BBMS) adalah sistem yang dicadangkan untuk meningkatkan kecekapan dalam menguruskan darah yang disumbangkan oleh penderma. Hospital masih digunakan sistem manual dan ada masalah dalam menguruskan rekod penderma. Rekod penderma tidak disimpan dengan selamat. Masalah ini akan mengakibatkan hilangnya rekod penderma kerana kesilapan manusia atau sebarang bencana. Selain itu, kesilapan mungkin berlaku apabila kakitangan menyimpan lebih daripada satu rekod untuk penderma yang sama. Memandangkan tidak ada pangkalan data terpusat yang digunakan untuk menyimpan rekod penderma, duplikasi data rekod penderma mungkin berlaku. Di samping itu, terdapat juga masalah untuk menjejaki jumlah sebenar darah di dalam darah. Tidak ada juga waspada apabila darah di bank telah tamat. Oleh itu, sistem ini dicadangkan. Matlamat utama projek ini adalah untuk meningkatkan kecekapan jabatan darah di hospital-hospital. BBMS adalah sistem berasaskan komputer. Pengguna sistem ini adalah pentadbir dan kakitangan yang bekerja di bank darah. Sistem ini akan menyelamatkan maklumat kakitangan, penderma dan penerima darah. Dengan sistem ini, rekod semua penderma dan penerima darah dan sejarah mereka disimpan dalam satu pangkalan data berpusat dan dengan itu mengurangkan pendua data dalam pangkalan data. Rekod sumbangan dikekalkan oleh sistem. Kakitangan bank darah boleh menguruskan stok darah. Semua darah akan disimpan di dalam bank darah mengikut jenis darah. Apabila darah dikeluarkan dari bank darah kepada penerima yang memerlukan, kuantiti darah dikemas kini. Sistem ini juga akan menyediakan sistem amaran kepada kakitangan apabila darah apabila stok darah telah tamat tempoh. Sebaliknya, sistem ini dapat menghasilkan laporan yang telah ditetapkan seperti senarai penderma, sukarelawan, penerima darah dan jumlah darah yang disumbangkan mengikut jenis darah.

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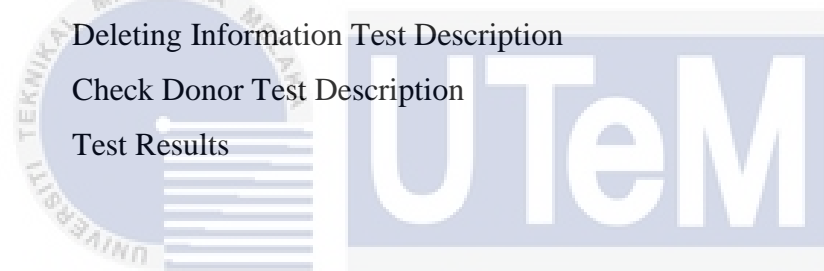
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LIST OF ABBRIVATIONS

BBMS	-	Blood Bank Management System
DBMS	-	Database Management System
DCL	-	Data Control Language
DDL	-	Data Definition Language
DML	-	Data Manipulation Language
GUI	-	Graphical User Interface
ID	-	Identity
PSM	-	Projek Sarjana Muda
SDLC	-	System Development Life Cycle
DBLC	-	Database Life Cycle
SQL	-	Structured Query Language

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CHAPTER I

1.0 INTRODUCTION

1.1 Introduction



Nowadays, the public can know about the blood donation events through conventional media means such as radio, newspaper or television advertisements. With all the advertisement, people would love to donate their blood as they can help person who need blood to save life. Usually, hospitals or clinics is the organization that manages the blood donation campaign. After the donation, all the blood will be stored in a place called blood bank for people in need.

For the staff who manage the blood bank, it becomes difficult for the staff worked in the blood bank to search blood in case of emergency. The only option is to manually search and match donors and then make phone calls to every donor. This is because all the records of the donor is not store in the centralized database.

The hospital is having their own records of donors but the donor's record is save in the books. If a donor makes donation in different days, no previous records can be traced except if the donor brings along the donation certificate.

Hence, the donor is considered to be a first-timer if they make blood donation. Besides, without an automated management system, there are also problems in keeping track of the actual amount of the blood in the blood bank.

1.2 Project Background

Since there are problems faced by the staff worked in the blood bank department in managing the blood bank management, so I have been come out with a new solution. The idea is to develop a new system named Blood Bank Management System (BBMS). BBMS is a computer-based system that has been develop to solve the problems faced while managing the blood bank in the same time to change the way of blood department management from the manual system to the automated system.

1.3 Problem Statements

- i. The current system in managing donors' records are still using manual system (paper-based) and there is no guarantee of safety because no centralized database to keep the donors' records.
- ii. Difficult to find list of donors when needed.
- iii. The actual amount of blood in the blood bank is difficult to keep track.
- iv. Staff do not know the expired date of the blood in the blood bank because no alert are available when the blood is expired.

1.4 Objectives

- i. To develop a system that can save all the records of donors in a centralized database.
- ii. To provide an efficiency searching platform of the donors when needed.
- iii. To easier the staff to keep track actual amount blood in the blood bank.
- iv. To provide a platform that can help staff checking blood that will be expired by providing an alert system in the system.

1.5 Scopes

The project scope is divided into two section which are the module to be develop and the target user for the system.

1.5.1 Module to Develop

a) Human Recourse

- Store the information of manager (administrator) and the staff.

b) Donor/Receiver Management

- The records of all donors and receivers and their history are stored in one centralized database. This reducing duplicate data in the database. The record of donation is maintained by the system.

c) Blood Management

- All the blood donated by the donors will be saved in this system. The system will provide a feature of alert for the blood if the blood is going to be expired within one week. So that the staff can get the notification and as a reminder the next process of the blood.

d) Blood Bank Management

- This module is developed for the manager or staff who manage the blood bank. All the blood will be stored in the blood bank according to the blood type. When blood is removed from the blood bank to a receiver in need, the quantity of blood is updated. The system will also raise alert to the staff whenever the blood when the blood in stock has expired.

e) Reporting

- The system is able to generate pre-defined reports such as the list of donor, volunteers, the recipient and the amount of blood donated according to the blood type. Besides, this system can also generate the repost of analysis how many blood have been transferred to the receiver for every month.

1.5.2 Target User

i. Manager

- Manager is the administrator of the system.
- Manager has the full privileges of the function in the system.
- Manager can view the report according to what they want to see.

ii. Staff

- The staff is person who worked in the blood bank.
- Staff are responsible in managing the registration of donor, the blood stock in blood bank and the transfer of blood to the receiver.

1.6 Project Significance

1. To develop a system that can replace the current system in managing the blood bank effectively.
2. To make sure all the donors' record stored in the centralized database to avoid the duplication of data.
3. To prevent the blood bank from stores blood that has expired and cannot be used again.

1.7 Expected Output

Output 1: The total blood that have been transferred to the receiver in every month can be calculate accurately and printed through the system.

Output 2: System can display the alert to remind the expired date for the blood stored in the blood bank.

1.8 Conclusion

As a conclusion, Blood Bank Management System (BBMS) is a computer-based system that is develop to replace the current system in managing the blood bank. This system is allow the manager and the receptionist as the user of the system. The system provide a new platform for the receptionist to store record of the donor in the centralized database. This will avoid system from store the duplicate data of donors. This system also have the new features which is can give alert to the receptionist when the blood in the blood bank has expired. This is a very effective way to maintain the availability of the blood bank. With this new system, the management of the blood bank will became more convenient compare to the current system. The next chapter will discuss about the project methodology and system planning.

