



UNIVERSITI
PENDIDIKAN
SULTAN IDRIS

اونيورسيتي قنديديقن سلطان ادريس

SULTAN IDRIS EDUCATION UNIVERSITY

SEMESTER 2 SESSION 2018/2019

MTD3033: DATABASE SYSTEM

ASSIGNMENT 3: BLOOD DONATION SYSTEM (BLOODSTER DONATION)

GROUP E



LECTURER'S NAME: DR NOOR ANIDA ZARIA BT MOHD NOOR

PREPARED BY:

PICTURE	NAME	MATRIC NUMBER
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	WAN NURUL NADIRAH BINTI W.MAZLAN	D20181083630
	WAN NUR ASIFA BINTI ZANURIN	D20181083632
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CHAPTER 1: DATABASE PLANNING

1.1 SYSTEM BACKGROUND

Blood Donation System is a system that will be built to replace the existing manual system. Blood donation is remarkably safe medical procedure. It will store the personal data of blood donors, blood donate reports, staff that handle the blood donation process and also provide a blood donation campaign advertising that will happened surrounds blood donors who have registered with the system. Previously, blood donors will be given a red book as a certificate that stores history of their donated blood. Through the certificate, blood donors will be rewarded by their frequency of blood donation.

In addition, this system also provides accurate reports to the admin and staff. The report includes the number of blood collected by blood type, the number of blood donors that came to donate their blood in each blood donation event and also a reports on staff who had conducted the event. Donated blood can be lifesaving for persons who have lost large amounts of blood because of serious accidents, new medical and surgical procedures, civil conflicts, and military wars as well as for patients who have become severely anemic because of serious hematological diseases or treatments such as cancer therapy. Therefore, availability of blood is an important concern to the society.

What are the process to donate blood? Firstly, when you arrive at the Blood Donation Centre you will be asked to complete a donor registration form, which includes your name, address, phone number, and various other types of demographic information. You will also be asked to show your donor card or the type of identification required by the particular blood bank you visit.

During pre-donation screening, a blood bank employee will ask you some questions about your health, lifestyle, and disease risk factors. All of this information is confidential. Next, an employee will perform a short health exam, taking your pulse, temperature and blood pressure. A drop of blood from your finger will also be tested to ensure that your blood iron level is sufficient for you to donate. All medical equipment used for this test, as well as during the donation process, is sterile, used only once and then disposed.

Once the pre-donation screening is finished, you will proceed to a donor bed where your arm will be cleaned with an antiseptic, and a professional will use a blood donation kit to draw blood from a vein in your arm. If you are allergic to iodine, be sure to tell the phlebotomist at this point. During the donation process, you will donate one unit of blood; this takes about six to ten minutes.

Following your donation, you will receive refreshments in the canteen area, where you can stay until you feel strong enough to leave. After donating, it is recommended that you increase your fluid intake for the next 24 to 48 hours; avoid strenuous physical exertion, heavy lifting or pulling with the donation arm for about five hours; and eat well balanced meals for the next 24 hours. After donating, smoking and alcohol consumption is not recommended.

Although donors seldom experience discomfort after donating, if you feel light-headed, lie down until the feeling passes. If some bleeding occurs after removal of the bandage, apply pressure to the site and raise your arm for three to five minutes. If bruising or bleeding appears under the skin, apply a cold pack periodically to the bruised area during the first 24 hours, then warm, moist heat intermittently. If you have any questions concerning your donation or experience any unexpected problems, please call the center where you donated blood.

1.2 PROBLEM STATEMENT

Problems often faced by donors and staff involved is when the certificate is lost. The data of blood donors and blood donation records were lost. Because of that, they have to register for the second time and also the reward will be recalculated. To overcome this problem, the system has been designed to minimize the problem. Blood donor and donated blood information is kept only in the book which can create a problem when that book is missing. Besides, it is hard to figure exact amount of blood collected in each event that happen in the same day. The numbers of people who donate their blood at some event also are hard to figure.

Using this system database, the system will make the blood packet more organized in ordering and easier to calculate the amount of blood that will be collected. So, computerized system make all the information about the records of blood donation will be save safely in the database. The record will be more secured because anyone cannot see or update the data without permissions.

1.3 SYSTEM OBJECTIVE

Objectives of the system is:

- Computerized system so that all the information related to the donor and their donated blood will be kept in the database safely.
- This system make the blood packet more organized in ordering and improve the process of calculated and analyzing the amount of blood collected
- Create a proper report with the detailed on the amount of people who donated their blood in some event.

1.4 SYSTEM SCOPE

System scope is a scope that defined a user that will used this system. Only listed users are able to use this system. System scope or also known as system modules is a list of what this system will do.

- i. User Scope
 - Blood Donor Users can use this system by viewing his/her profile, donor history, reward and event. Besides, they are also able to edit their profile and view their donation report.
 - Staff Users who will maintain the system by managing donor, donor history, event, and register donor information.
 - Admin Users who will maintaining the system by managing the staff, event, and view the report.

- ii. Modules
 - 1) Login Module
 - A module to verify the user. User will log on into the system and will be directed to the specific pages by scanning their ID.

 - 2) Donor and Staff Registration
 - A module to add new donor and staff into the system. The staff will register the donor, while staffs are registered by the admin

 - 3) Hospital and Event Registration
 - A module to add hospital and event into the list. Admin will add hospital and new event. This module will be conducted by the admin, staff and donors have no authority to edit the information entered by the admin.

 - 4) Update Information
 - A module that develop an update option to the system. Not all users can edit all data. Donor can only edit their own profile, while staff can update the donor profile and but not their own profile. Only admin are allowed to update the information about staff, event and hospital information.

 - 5) Delete Information
 - This module is to delete some information in the data. Only specific person can do his delete module on the information. Donor cannot delete anything, while staff can delete donor information. Only admin can delete staff, event and hospital information

6) Generate Report

- A module that will generate report for the collected data. This module can be conducted only by the staff and admin.

1.5 TARGET USER

- Most people can give blood if they are in good health. There are some basic requirements one need to fulfill in order to become a blood donor.
- Targeting the younger audience because the young people more easier to check their BMI more stable and healthier.
- The young people always easy to volunteer for the blood donation.
- Especially, we go to the University institution for archive the target of blood donation.
- Age :
 - You are aged between 18 and 65.
 - In some countries national legislation permits 16–17 year-olds to donate provided that they fulfil the physical and hematological criteria required and that appropriate consent is obtained.
 - In some countries, regular donors over the age of 65 may be accepted at the discretion of the responsible physician. The upper age limit in some countries are 60.

Weight:

- You weigh at least 50 kg.
- In some countries, donors of whole blood donations should weigh at least 45 kg to donate 350 ml

Health:

- You must be in good health at the time you donate.
- You cannot donate if you have a cold, flu, sore throat, cold sore, stomach bug or any other infection.

1.6: PROJECT TIMELINE

TASK	START DATE	END DATE	DURATION
Planning: 3 System	4/5/2019	5/5/2019	1
Analysis: Blood Bank Systems	6/5/2019	8/5/2019	3
Design: Sketch the ERD	8/5/2019	10/5/2019	3
Implementation: Development of SQL	10/5/2019	10/5/2019	1
Maintenance: Testing DDL/DML/SELECT Statement	15/5/2019	16/5/2019	1

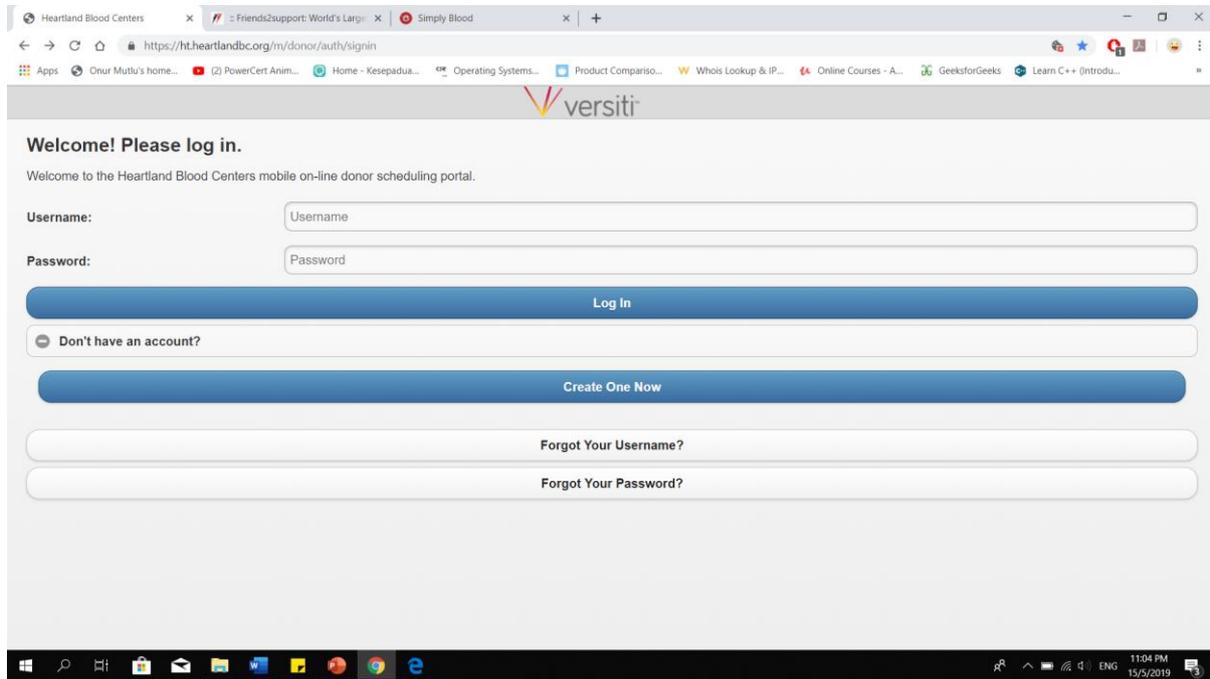


1.7: TASK ASSIGNMENT AMONGST GROUP MEMBER

NAME	TASK
MOHD FAUZI BIN SUKARDI	DATABASE PROGRAMMING
NURIHDI BIN TAJUDIN	DATABASE PROGRAMMING
WAN NURUL NADIRAH BINTI W. MAZLAN	DATABASE PLANNING
SAZATUL JULIANA BINTI ABDULLAH	DATABASE PLANNING
NUR ATIKAH BINTI SHAPUDIN	DATABASE DESIGN
WAN NUR ASIFA BINTI MOHD ZANURIN	DATABASE DESIGN

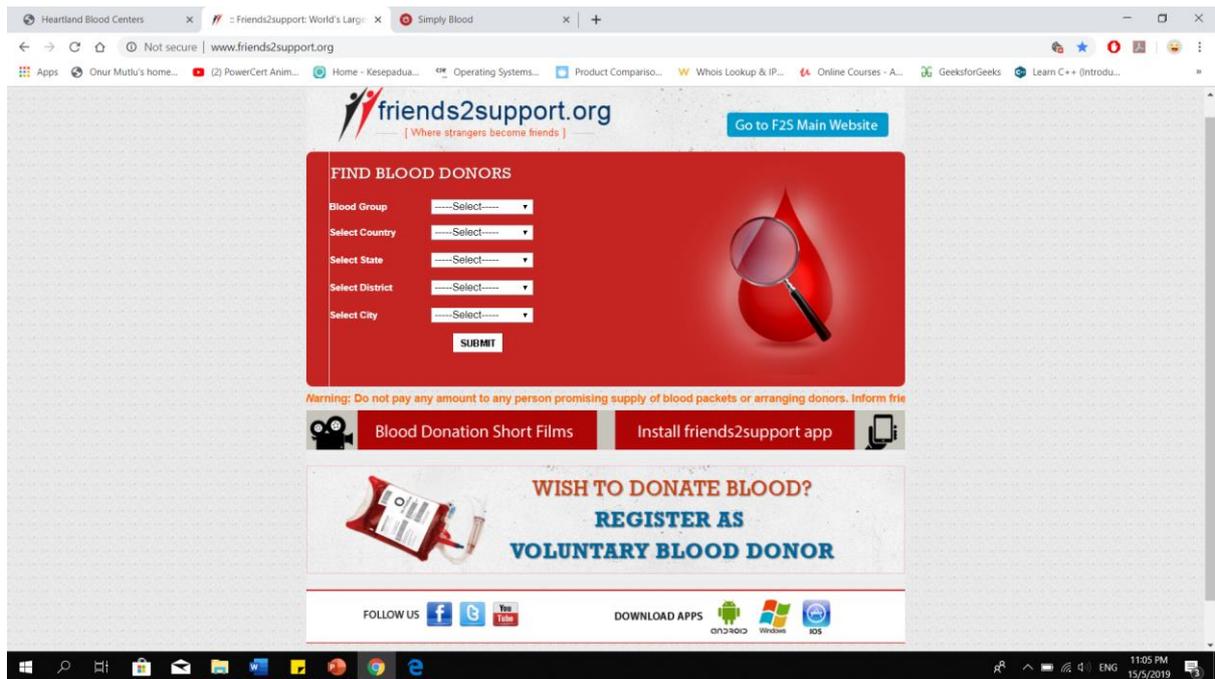
CHAPTER 2: REQUIREMENTS COLLECTION AND ANALYSIS

2.1: ANALYZE EXISTING SYSTEMS



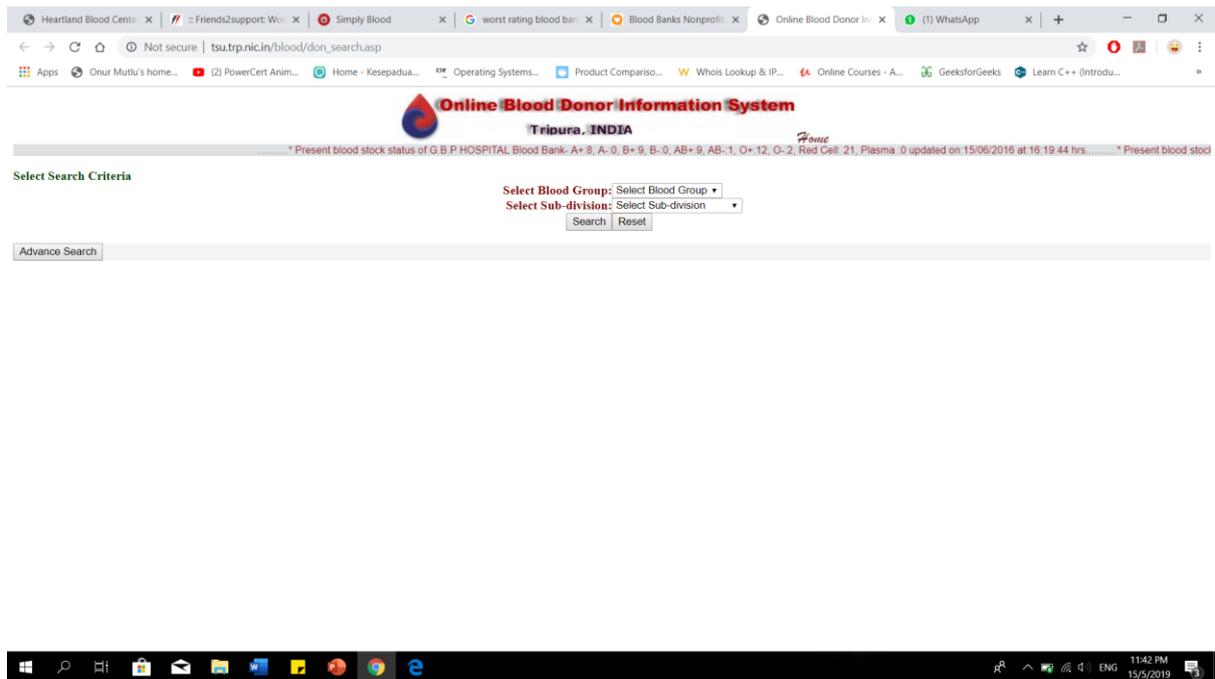
Current System 1:

Versiti is a fusion of donors, scientific curiosity, and precision medicine that recognize the gifts of blood and life are precious. Versiti brings together outstanding minds with unparalleled experience in transfusion medicine, transplantation, stem cells and cellular therapies, oncology and genomics, diagnostic lab services, and medical and scientific expertise. This combination of skill and knowledge results in improved patient outcomes, higher quality services and reduced cost of care for hospitals, blood centers, hospital systems, research and educational institutions, and other health care providers. Founded in 1943, Heartland Blood Centers is the oldest blood center in Illinois and among the oldest in the United States. Heartland Blood Centers has expanded over the decades to serve the growing needs of the Chicago metropolitan region and northwest Indiana. Today, Heartland is the leading provider of blood and blood products in the Chicago land area serving more than 70 hospitals. Heartland operates under a volunteer donor system with the goal of meeting the hospital blood needs. Heartland stands ready to assist other parts of the country during severe blood shortages, national emergencies and increased demands by the armed services.



Current System 2:

Friends2Support.org is the world's largest voluntary blood donors' organization with services available in India, Sri Lanka, Bangladesh, Nepal, Malaysia and Yemen. The organization's main aim is to have a society wherein there is no shortage of blood in the most critical situations. Friends2Support.org has more than 2, 00,000 voluntary blood donors across the world and soon targets to reach 10 million mark. Friends2Support.org is a non-profit organization providing access to contact blood donors online from its website and mobile applications. Friends2Support (F2S) has over 175,000 people voluntarily registered as blood donors. Friends2Support makes the best use of contemporary technologies in delivering a promising web portal to bring together all the blood donors in India; thereby fulfilling every blood request in the country.



Current System 3:

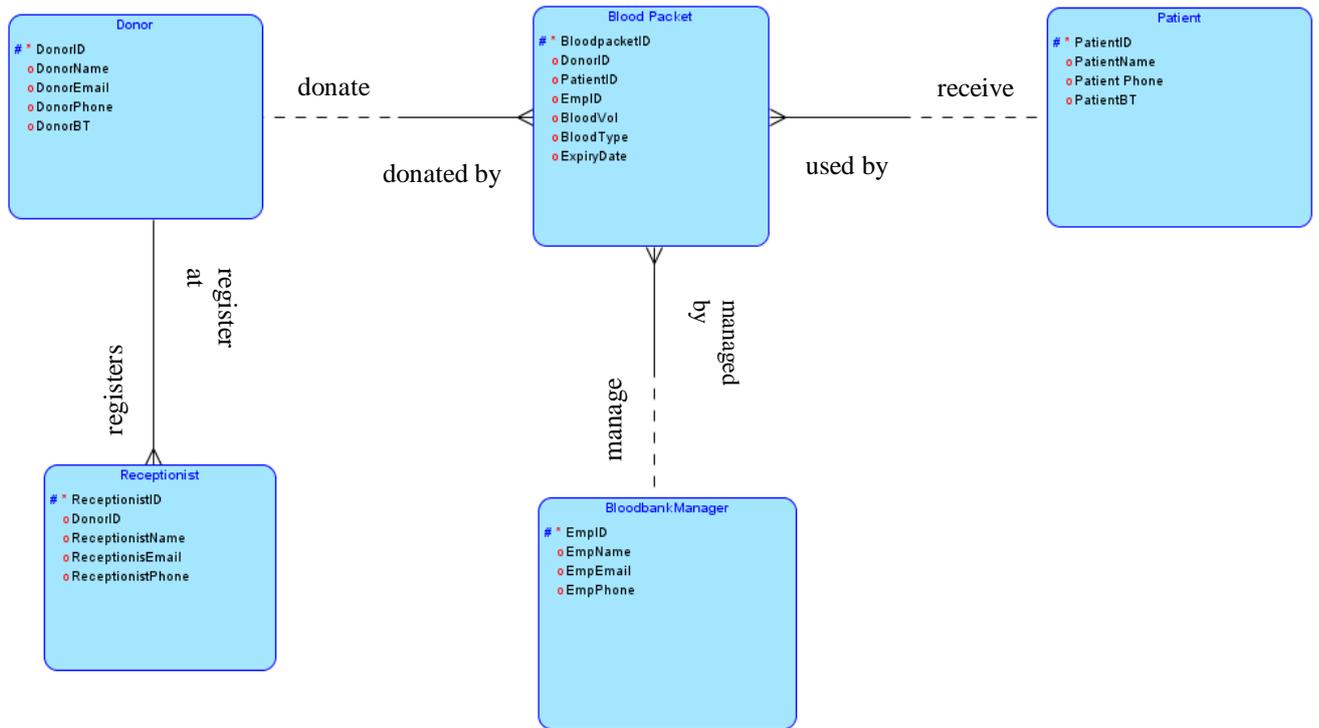
Tripura State Blood Transfusion Council was formed on 04-07-1996 as per direction of honorable Supreme Court, with the vision to setup a well-organized blood transfusion service in our state as per the National Blood Policy. The number of National AIDS Control Organization (NACO) supported Blood Banks in State –06 (Six). The district wise Blood Banks have 5 that is west district, Gomati district, Dhalai district, Unakoti district and North district. There are two more Blood Banks are functioning in Tripura that is Tripura Medical College & Dr. BRAM Teaching Hospital, Hapania, Agartala, West Tripura and ILS Hospital, Capital Complex, Gurkhabasti, Agartala, West Tripura.

2.2: COMPARISON AMONGST SYSTEMS INCLUDING NEW SYSTEM

Criteria	Versiti	friends2support.org	Online blood donor information system	Our System (Bloodster Donation)
Privacy Data Secure	Secure	Secure	Less secure	Less Secure
Usability	Easy to use	Easy to use	Easy to use	Easy to use
Design Interface	Simple interface	Simple and more specific interface	Simple interface	Simple interface
User/Customer Satisfaction	Moderate Satisfied	Satisfied	Moderate Satisfied	Satisfied

CHAPTER 3: DATABASE DESIGN

3.1: ENTITY RELATIONSHIP DIAGRAM (ERD)



3.2: DATABASE MANAGEMENT SYSTEM (DBMS) SELECTION

A. DBMS Products

Microsoft Access (MS Access)

Advantages	Disadvantages
<p>Flexible to install and use as it Access gives data managers a fully functional, relational database management system in minutes. Like many other Microsoft applications, Access contains Wizards that walk you through each step of the way. The user interface is intuitive; accelerating data information retrieval.</p>	<p>Limited as it Microsoft Access is useful for individual departments or small-to-medium business sectors. Any sector whose usage goes beyond 2 GB will hit a wall and discover limitations.</p>
<p>Ease to integrate as it Access works well with many of the developing software programs based in Windows. It also can be used in the front-end as back-end tables with products like Microsoft SQL Server and non-Microsoft products like Oracle and Sybase.</p>	<p>One file as it all the information from your database is saved into one file. This limits options and how you choose utilize data; slowing down reports, queries, and forms. Its performance becomes slow as the user scales data size. Multimedia data can be used up MS Access limited space quickly.</p>
<p>.NET-friendly as it Access is a go-to choice for users who plan to develop software using .NET; linking to Access database. Its graphical user interface also offers easy functionality and set up.</p>	<p>Structure Query Language (SQL) as it SQL for MS Access is not as robust as MS SQL Server or Oracle, to just name a few.</p>

MYSQL Database

Advantages	Disadvantages
<p>Fast as it MySQL Stored procedures are quickly because MySQL server takes some advantage of caching. Another reason for its speed is that it makes the reduction in network traffic. Suppose, if we have a repetitive task that requires checking, looping, multiple statements, and no user interaction, does it with a single call to a procedure that's stored on the server.</p>	<p>Memory usage increased as if we use many stored procedures, the memory usage of every connection that is using those stored procedures will increase substantially.</p>
<p>Portable as it because when we write our stored procedure in SQL, we know that it will run on every platform that MySQL runs on, without obliging us to install an additional runtime-environment package or set permissions for program execution in the operating system.</p>	<p>Delicate to debug to debug stored procedures. Only a few database management systems allow you to debug stored procedures. Unfortunately, MySQL does not provide facilities for debugging stored procedures.</p>
<p>Secure as it because the database administrator can grant appropriate permissions to applications that access stored procedures in the database without giving any permissions on the underlying database tables.</p>	<p>Complex to maintain as it is not easy to develop and maintain stored procedures. Developing and maintaining stored procedures are often required a specialized skill set that not all application developers possess. This may lead to problems in both application development and maintenance phases.</p>

ORACLE Database

Advantages	Disadvantages
<p>Centralized Management System and Control as it Oracle SQL statements allow data to be controlled from a central tabular repository. A database administrator (DBA) is responsible to create users, assign privileges, add records, delete redundant information, and modify existing data and process queries. This centrally stored data is shared and accessed by various applications. This eliminates data entry and data storage redundancy.</p>	<p>Incompatibility and Complexity as it one of the major disadvantages of Oracle SQL is inconsistency and data incompatibility in the areas of time and date syntax, string concatenation and case sensitivity. The language is complex, with a keyword approach similar in structure to COBOL (common business-oriented language), with fewer syntax and grammar rules.</p>
<p>Standardization as it a major advantage of Oracle SQL is its standardization and consistency among various different implementations. SQL was first standardized by ANSI (American Standards Institute) in 1986, and further ratified in 1987 by the International Organization for Standardization (ISO), which remains its standardization body.</p>	<p>Limited functionality as it SQL is a domain specific or special-purpose language, and its use is limited to a specific program domain. SQL statements are operated on tables and sets of data, such as personnel databases and accounting spreadsheets. SQL is a declarative domain specific language that is limited to the tabular representation of data.</p>
<p>Oracle Database works well with widely accepted application programming interfaces, such as JDBC and .NET, and application development tools, such as Eclipse and SQL Developer. As a result, application development can get started quickly, and make rapid progress.</p>	<p>Oracle database can be challenge to utilize with beginners. Its interface and amount of features can be daunting for those with limited experience using a database. It is not a simple database to plug in a go.</p>

B. Selected DBMS (ORACLE Database)

We are choosing Oracle Database as our medium software to build the Blood Donation System because it has many pros than cons. Plus it is convenient to get and install the software from our lecturer although it is not a full version. We as a group have to do a little study about how to use the software as it is our first time to create a full database system. It takes a few days to master the software with the help of lecture notes from lecturer and some videos on YouTube.

The rationale of we choose Oracle Database is users interact with Oracle Database using applications and tools that use SQL, a widely known language that is familiar to a wide range of database administrators, developers, application support staff, and managers. Because of this fact, members are fully engaged in all aspects of application planning, development, and application management. This full engagement improves the ability of the organization to manage applications and promotes teamwork.

Besides that, Centralized Management System and Control as it Oracle SQL statements allow data to be controlled from a central tabular repository. A database administrator (DBA) is responsible to create users, assign privileges, add records, delete redundant information, and modify existing data and process queries. This centrally stored data is shared and accessed by various applications. This eliminates data entry and data storage redundancy.

Furthermore, standardization as it a major advantage of Oracle SQL is its standardization and consistency among various different implementations. SQL was first standardized by ANSI (American Standards Institute) in 1986, and further ratified in 1987 by the International Organization for Standardization (ISO), which remains its standardization body.

Finally, the security is provided. As a Sarbanes-Oxley (SOX) compliant company, we are obliged to accomplish with a lot of requirements, such as generating and keeping audit trails, ensure the proper segregation of duties and permits, etc. With Oracle we were we have been able to comply with all the requirements that our auditor demands.

3.3 APPLICATION DESIGN

A. DATA DICTIONARY

Table name: Receptionist

<i>Field Name</i>	<i>Data Type</i>
<i>ReceptionistID</i>	<i>CHAR</i>
<i>ReceptionistName</i>	<i>VARCHAR</i>
<i>ReceptionistEmail</i>	<i>VARCHAR</i>
<i>ReceptionistPhone</i>	<i>VARCHAR</i>

Table name: Donor

<i>Field Name</i>	<i>Data Type</i>
<i>DonorID</i>	<i>CHAR</i>
<i>DonorName</i>	<i>VARCHAR</i>
<i>DonorBT</i>	<i>VARCHAR</i>
<i>DonorEmail</i>	<i>VARCHAR</i>
<i>DonorPhone</i>	<i>VARCHAR</i>

Table name: BloodPacket

<i>Field Name</i>	<i>Data Type</i>
<i>BloodpacketID</i>	<i>CHAR</i>
<i>BloodVol</i>	<i>VARCHAR</i>
<i>BloodType</i>	<i>VARCHAR</i>
<i>ExpiryDate</i>	<i>DATE</i>

Table name: BloodbankManager

<i>Field Name</i>	<i>Data Type</i>
<i>EmpID</i>	<i>CHAR</i>
<i>EmpName</i>	<i>VARCHAR</i>
<i>EmpEmail</i>	<i>VARCHAR</i>
<i>EmpPhone</i>	<i>VARCHAR</i>

Table name: Patient

<i>Field Name</i>	<i>Data Type</i>
<i>PatientID</i>	<i>CHAR</i>
<i>PatientName</i>	<i>VARCHAR</i>
<i>Patient_Phone</i>	<i>VARCHAR</i>
<i>PatientBT</i>	<i>VARCHAR</i>

B. RELATIONAL MODEL

3. RELATIONAL MODEL

DonorID (PK)	DonorName	DonorBT	DonorEmail	DonorPhone
991123138897	Ariana Grande	A+	a.grande@rocketmail.com	0191089967
980614126657	Nicky Minaj	B-	n.minaj@rocketmail.com	0129088765
951005018777	Katy Perry	O+	k.perry@rocketmail.com	0133334452
910818041655	Shawn Mendes	O-	s.mendes@rocketmail.com	0142213167
930713115644	James Arthur	AB+	j.arthur@rocketmail.com	0115443778

RegisterID	RegisterID (PK)	Bloodpa ckeID (PK)	Blood Vol	Blood Type	ExpiryD ate	DonorID (FK)	PatientID (FK)	EmpID (FK)
0001	0001	0001	350 ml	A+	14/1/20	991123138897	800916011001	810129014554
0002	0002	0002	400 ml	B-	14/1/20	980614126657	831211021211	830209085443
0003	0003	0003	300 ml	O+	14/1/20	951005018777	850430031511	840717078900
0004	0004	0004	450 ml	O-	14/1/20	910818041655	940230061322	901027117800
0005	0005	0005	500 ml	AB+	14/1/20	930713115644	900815128900	920909063211

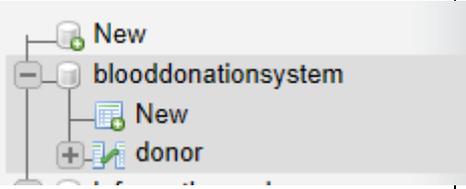
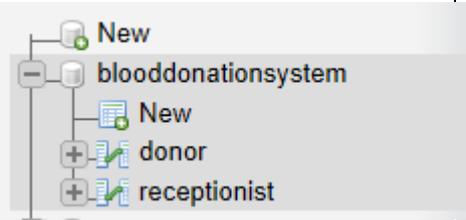
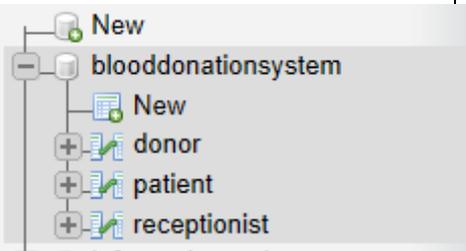
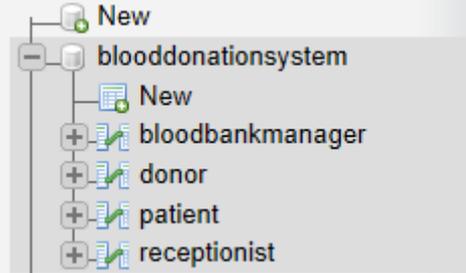
PatientID (PK)	PatientName	PatientBT	PatientPhone
800916011001	Mariah Carey	AB+	0173028364
831211021211	Madonna	O-	0163094627
850430031511	Johnny Deep	O+	0183926387
940230061322	Leonardo DiCaprio	B-	0102739467
900815128900	Kate Middleton	A+	0169203748

EmpID (PK)	EmpName	EmpEmail	EmpPhone
810129014554	Martin Luther	m.luther@emp.com	0123615243
830209085443	Meghan Markle	m.markle@emp.com	0192736453
840717078900	Bon Jovi	b.jovi@emp.com	0137283746
901027117800	Emily Blunt	e.blunt@emp.com	0172364098
920909063211	Zac Efron	z.efron@emp.com	0129309370

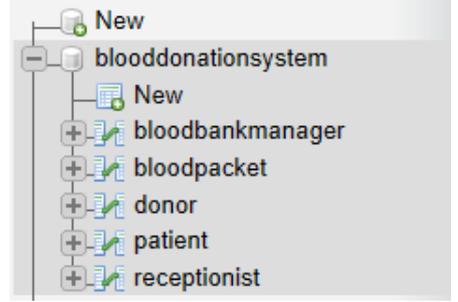
ReceptionistID (PK)	ReceptionistName	ReceptionistEmail	ReceptionistPhone	DonorID (FK)
980103121212	Zayn Malik	zaynmalik@blood.com	0189078544	991123138897
940209101313	Zhavia Ward	ward@blood.com	0198978665	980614126657
960620038989	Taylor Swift	taylor@blood.com	0138965433	951005018777
970414046678	Khalid	khalid@blood.com	0146766543	910818041655
900510115547	Adele	adele@blood.com	0156755433	930713115644

CHAPTER 4: DATABASE DEVELOPMENT

4.1: DATA DEFINITION LANGUAGE (DDL)

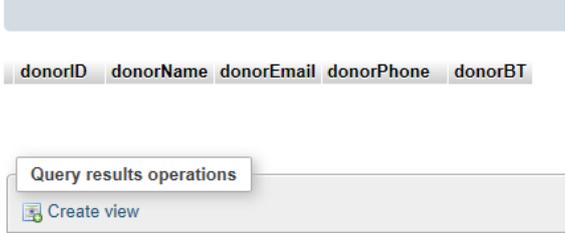
Table name	DDL SQL Statements	Output
Donor	<pre>CREATE TABLE donor (donorID int, donorName varchar(255), donorEmail varchar(255), donorPhone int, donorBT varchar(255), PRIMARY KEY (donorID));</pre>	
Receptionist	<pre>CREATE TABLE receptionist (receptionistId int, receptionistName varchar(255), receptionistEmail varchar(255), receptionistPhone int , donorID int, PRIMARY KEY (receptionistID), FOREIGN KEY (donorID) REFERENCES donor(donorID));</pre>	
Patient	<pre>CREATE TABLE Patient (PatientID int NOT NULL, PatientName varchar(255), PatientPhone int, PatientBT varchar(255), PRIMARY KEY (PatientID));</pre>	
BloodBankManager	<pre>CREATE TABLE BloodBankManager (EmpId int NOT NULL, EmpName varchar(255), EmpEmail varchar(255), EmpPhone int, PRIMARY KEY (EmpId));</pre>	
BloodPacket	<pre>CREATE TABLE Bloodpacket (BloodPacketId int NOT NULL, BloodVol int, Bloodtype CHARACTER, DonorId int NOT NULL, PatientId int NOT NULL, EmpId int NOT NULL,</pre>	

Expirydate int NOT NULL,
PRIMARY KEY (BloodPacketId),
FOREIGN KEY (DonorId) REFERENCES
donor(DonorId),
FOREIGN KEY (Patientid) REFERENCES
patient(PatientId),
FOREIGN KEY (EmpId) REFERENCES
bloodbankmanager(EmpId)
);



4.2: DATA MANIPULATION LANGUAGE (DML)

Statement	DML SQL Statements	Output																													
SELECT	<p>1. SELECT statement to retrieve all columns and all rows from any table.</p> <pre>SELECT receptionistId, receptionistName FROM receptionist;</pre> <p>2. SELECT statement that is used comparison search condition from any table.</p> <pre>SELECT *FROM donor WHERE donorId='123'</pre> <p>3. SELECT statement to sort data from any table.</p> <pre>SELECT * FROM donor Order by donorId</pre> <p>4. SELECT statement to group data from any table.</p> <pre>SELECT (donorId) donorName FROM donor GROUP BY donorName</pre>	<p>MySQL returned an empty result set (i. e. zero rows). (Query took 0.0026 seconds.)</p> <pre>SELECT receptionistId, receptionistName FROM receptionist</pre> <table border="1"> <thead> <tr> <th>receptionistId</th> <th>receptionistName</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>donorID</th> <th>donorName</th> <th>donorEmail</th> <th>donorPhone</th> <th>donorBT</th> </tr> </thead> <tbody> <tr> <td>123</td> <td>Ahmad</td> <td>ahmad78@gmail.com</td> <td>1125487639</td> <td>0</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>donorID</th> <th>donorName</th> <th>donorEmail</th> <th>donorPhone</th> <th>donorBT</th> </tr> </thead> <tbody> <tr> <td>123</td> <td>Ahmad</td> <td>ahmad78@gmail.com</td> <td>1125487639</td> <td>0</td> </tr> <tr> <td>124</td> <td>Aiman</td> <td>aiman@gmail.com</td> <td>135487639</td> <td>AB</td> </tr> </tbody> </table> <pre>+ Options donorName 123 124</pre>	receptionistId	receptionistName			donorID	donorName	donorEmail	donorPhone	donorBT	123	Ahmad	ahmad78@gmail.com	1125487639	0	donorID	donorName	donorEmail	donorPhone	donorBT	123	Ahmad	ahmad78@gmail.com	1125487639	0	124	Aiman	aiman@gmail.com	135487639	AB
receptionistId	receptionistName																														
donorID	donorName	donorEmail	donorPhone	donorBT																											
123	Ahmad	ahmad78@gmail.com	1125487639	0																											
donorID	donorName	donorEmail	donorPhone	donorBT																											
123	Ahmad	ahmad78@gmail.com	1125487639	0																											
124	Aiman	aiman@gmail.com	135487639	AB																											
INSERT	<pre>INSERT INTO donor (donorID,donorName,donorEmail,donorPhone ,donorBT)</pre>	<table border="1"> <thead> <tr> <th>donorID</th> <th>donorName</th> <th>donorEmail</th> <th>donorPhone</th> <th>donorBT</th> </tr> </thead> <tbody> <tr> <td>123</td> <td>Ahmad</td> <td>ahmad78@gmail.com</td> <td>1125487639</td> <td>0</td> </tr> </tbody> </table>	donorID	donorName	donorEmail	donorPhone	donorBT	123	Ahmad	ahmad78@gmail.com	1125487639	0																			
donorID	donorName	donorEmail	donorPhone	donorBT																											
123	Ahmad	ahmad78@gmail.com	1125487639	0																											

	VALUES (123,'Ahmad','ahmad78@gmail.com','01125487639','O');	
UPDATE	UPDATE donor SET donorName = 'Alli' , donorBT = 'A' WHERE donorID = 123;	
DELETE	DELETE FROM donor WHERE DonorName='Alli';	

CHAPTER 5: CONCLUSION

5.1 SYSTEM STRENGTH

- Replace the current manual system
- Record the exact amount of blood donation
- Record will be more secured because anyone cannot see or update the records without permissions
- Improve the quality of recording and manage all information about blood donors. We can establish the regular or repeat data of blood donors
- Easy to use and help donor to keep their data and history safely
- Able to handle basic system operations such as add, delete, and update all the data
- All the donor and donation information will be saved in database
- There will be more security to detect the redundant data and wrong detail about blood donation

5.2 SYSTEM LIMITATIONS

- Problems to calculated number of donor blood
- Difficult in identifying blood donors expiry date
- There is the limitations of age number of donor
- It is important to set weight limit of donor blood
- Limit ordering blood packet per day

5.3: CONCLUSION

This system is built to replace the current manual system. This system will bring a benefit to donors as they are able to donate blood without need to bring their small donation book detail that they used before. Besides that, the red book also give a problem if it is missing, so by using this system, all the donor and donation information will be saved in the database. Staff also will get benefits from this system by managing the donor information easier than usual. Besides that, the staff also can record the exact amount of blood donated. Admin can also update the current amount of blood donated from all events that happened the same day.

The information in the system also will be kept safely. The problem statement describes the problem related to why should this system be developed. By replacing and improving the management system, less manual work will be required in the process of collecting, handling and maintaining of the data. We will gather all information and requirement needed for the implementation phase for this system. Besides, this chapter also will explain the process and the operations of current system. From this analysis, we will collect as much information that will be used to build a new system.

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