CSE 471(SEC-03)

Title of the Project: BLOOD BANK MANAGEMENT SYSTEM

Course Name: System Analysis and Design

Group Number: 03

Group Name: Team Thanos

Submitted by:

Name	ID
ASHRAFUL JANNAT	15101102
MD. AOSAFUL ALAM	16101061
NAZMUS SAKIB AKASH	16101208
SHAHAN JAMIL BHUIYAN	16101091

Table of contents

Introduction, existing system review, system description	Page 4
Feasibility analysis	Page 5-13
Analysis, Functional, Non Functional Requirements	Page 13-18
Class Diagram	Page 19
Use-case Diagram	Page 20
Activity Diagram	Page 21
Behavioral State Machine Diagram	Page 22
Sequence Diagram	Page 22
Data modeling	Page 23-25
Design	Page 26
Interface Design	Page 26-34
Implementation	Page 35
Conclusion and Future Work	Page 35

List of Figures

Figure 1	Contact Option Diagram of Blood Donation Management System
Figure 2	Class Diagram of Blood Donation Management System
Figure 3	Use-Case Diagram of Blood Donation Management System
Figure 4	Activity Diagram of Blood Donation Management System
Figure 5	Behavioral State Machine Diagram of Blood Donation Management System
Figure 6	Sequence Diagram of Blood Donation Management System
Figure 7	Data Flow Diagram of Blood Donation Management System
Figure 8	Entity Relationship Diagram of Blood Donation Management System
Figure 9	Home Page
Figure 10	Donor Registration
Figure 11	Send Request
Figure 12	Donor Login
Figure 13	Donor Panel
Figure 14	Hospital Login
Figure 15	Hospital Panel
Figure 16	Search Option
Figure 17	Contact
Figure 18	About

List of tables

Table 1	List of existing hardware	
Table 2	List of newly bought hardware	
Table 3	List of software needed	
Table 4	List of month salaries of the labors	
Table 5	List of total development cost	
Table 6	List of total operational cost	
Table 7	List of benefits	
Table 8	List of total all benefits	

Table 9	List of present value of total costs	
Table 10	List of present value of all costs	
Table 11	List of benefits-costs	
Table 12	List of cumulative NPV	
Table 13	List of Estimate system size	
Table 14	List of total processing complexity	
Table 15	Table of total lines of code	

BLOOD BANK MANAGEMENT SYSTEM

INTRODUCTION:

Approximately 6000 babies with different types of thalassemia are born in Bangladesh each year. Thalassemia is a common problem in Bangladesh. According to World Health Organization (WHO) about 4.8 million people in Bangladesh are now carrying the gene of this silent killer disease, which is four per cent of the total population of the country. Moreover, every day we find many advertises searching of bloods and even more reports about lives being lost due to not finding the suitable blood type for the patients. These scenarios indicate the necessity of a centralized digital blood management system which would mitigate the problems that have been mentioned. Following this, we have decided to organize a system named "Blood Bank Management System" which will help people to find blood easily when necessary.

MOTIVATION:

In our country, the blood bank management system is very analog. There are only few online blood banks who provide online blood services, however the system is not reachable to everywhere. That is why we are creating a system which will provide not only blood also create a community with blood banks, healthcare and common people. "GIVE BLOOD" will be dedicated to connecting people who need life-saving blood with generous volunteers who give. We will provide a stable supply of blood and blood components to healthcare facilities throughout the country.

To build up an information system type project, it must be moved through different phases of System Development Life Cycle (SDLC). By completing these phases, a project can finally be implemented. For our Blood Bank Management System, we must go through these phases. These phases are –

- 1. Planning
- 2. Analysis
- 3. Design
- 4. Implementation

Planning:

<u>Mission:</u> Saving lives by providing blood without delay and brand-building partnerships with the community, other blood bank, and health care facilities.

Vision: To be the best online blood bank in Bangladesh.

<u>Values:</u> Respect, Integrity, Service, Excellence.

FEASIBILITY ANALYSIS:

A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as economic, technological, legal and scheduling factors. It can be divided into 3 parts, technical, economic and organizational.

TECHNICAL FEASIBILITY:

For the technical feasibility, we will be examining the details of how the old system works in the present situation and the issues the user faces with the old system. After that we are going to going to expedite the existing technologies that we have in our arsenal. We will see if our technologies are good enough for the proposed system or if we have to upgrade our technologies. Even the number of people working behind the system will be shown along with their expenses and also the cost of new technologies will be showed. Overall we will be showing the probability of this venture being successfully completed and why it is worth investing in.

POSSIBLE RISK:

Our proposed system's name is Blood Bank Management System. The basic feature this system provides is the users going to search blood group and also look for the donors who are available in that moment. Hospitals, other healthcare units can also search for donors. Now for some reason if this idea is misunderstood by the people who will do the front end and the back end of the system then it will directly affect the basic function of the system. So, to tackle this problem every people working behind the system needs to have clear idea about the system and what the system will deliver to its user. To solve this problem, the people of public relations working for the system need to increase their interaction with the people who will ultimately be using the system. They will eventually get the information related to what a user prefers in a system and what will be the easiest way to use the system. After that the

public relations department can convey all those messages to the technical stuffs so that they can create the system as much user friendly as they can.

EXISTING TECHNOLOGY:

After that evaluation, we had to consider what kind of technologies we have at our disposal and what technologies we need in order to create the system. The hardware and software technologies we need are given along with the price.

Existing Hardware

Material	Quantity
Desktop	10
Laptop	20

Table 01: List of existing hardware

Hardware

Material	Brand	Quantity	Cost (in Tk)
Desktop	ASUS D83M1 INTEL Core i7 7th Gen 8GB DDR4 1TB Brand PC	10	449000

Laptop	Asus K555LN Core i7 5th Gen. 5500U (2.40GHz,8GB,1TB) 15.6 Inch Nvidia GT840 2GB Black Metal Notebook	20	62100
Internet	EXORD Ltd	Monthly payment	6000 (per month)
External Hard Drive	TOSHIBA 1TB USB 3.0 Black External HDD	2	12800
Server	Web Host BD	Yearly payment	5000 (per year)

Table 02: List of newly bought hardware

Software

Software needed	Functions
HTML	It gives a structure to a website and shows what user want to see
CSS	It is used to decorate the website
Programming languages	Such as Java, JavaScript, PHP are used to establish communication with the database

Database	Such as MYSQL, Oracle, SQL server are us	
	to create the database where data will be stored	

Table 03: List of software needed

These are the estimated hardware and software needed for now to kick start developing the system.

LABOR

There will be different analyst along with the project manager. Along with that, there will be programmers who will work both on the front end and back end of the system. There will also be a department called public relations department which will communicate with the people to know about their expectations of this system. This department will be included in the business analyst post. The number of people working in those posts along with their monthly salary is given below.

Salary Table

Post	Monthly salary	Number of people
Project manager	55000-60000	1
System analyst	40000-45000	2-3
Business analyst	30000-35000	2-3
Infrastructure analyst	35000-40000	1-2
Change management analyst	25000-30000	1-2
Programmers	40000-45000	3-4
Janitors	10000-12000	1-2

Table 04: List of Salary of Employees

ECONOMIC FEASIBILITY:

Economic feasibility analysis is the most commonly used method for determining the efficiency of a new project. It is also known as cost analysis. It helps in identifying profit against investment expected from a project. Cost and time are the most essential factors involved in this field of study. For our project, we already estimated some of the costs and benefits in advance to have a clear idea about how the project is going to run in the long term.

Possible Costs:

Every system has to endure some initial costs to build. For our system, we figured out few of the costs that we have to go through. There are some development costs for our system such as we need to train the people who are going to work under us. If they are not properly trained or guided, the system will require more time to build and thus will endure more costs. Then there is the office space cost. We have to hire space for our project so that everyone can work in harmony and one can easily communicate with others for work purpose. The equipment costs have been there already in the technical feasibility part where costs of all the hardware, software, laptops and computer are shown clearly.

So far we calculated this costs that we must have to go through to build our system but there can be even more costs than this as well.

TOTAL DEVELOPMENT COSTS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4
492780	53000	53000	53000	53000

Table 05: List of total development cost

TOTAL OPERATIONAL COSTS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4
4620000	4620000	4620000	4620000	4620000

Table 06: List of total operational cost

Possible Benefits:

Now we move to the benefits section of our project. The benefits that we are going to have from this project are simple. Firstly, we will be looking to gather some sponsors for our project. We hope to get as many sponsors as possible. The sponsors have to pay a good amount of money on a yearly basis. As far as the planning is proceeding we are willing to

charge each sponsor 8 lakh taka per year. And in return we will post there banner and ads on our website. There will be a count for how many requests are made for blood and donor from hospital or clinic from our website and from that count we will charge the hospital or clinic 10% on every response. This amount has to be paid by the hospital or clinic on a monthly basis. As we stated other online blood bank can join with our system. So we will charge 10% from them also.

BENEFITS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4
4800000	4800000	4800000	4800000	4800000

Table 07: List of benefits

TOTAL ALL BENEFITS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4	TOTAL
4800000	9600000	14400000	19200000	24000000	24000000

Table 08: List of total all benefits

Net Present Value

Net Present Value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used in capital budgeting to analyze the profitability of a projected investment or project.

PRESENT VALUE OF TOTAL COSTS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4
5112780	4673000	4673000	4673000	4673000

Table 09: List of present value of total costs

PRESENT VALUE OF ALL COSTS (TK)

Year 0	Year 1	Year 2	Year 3	Year 4	TOTAL
5112780	9785780	14458780	19131780	23804780	23804780

Table 10: List of present value of all costs

Return on Investment (ROI)

Return on Investment (ROI) is the ratio between the net profit and cost of investment resulting from an investment of some resource. A high ROI means the investment's gains compare favorably to its cost. As a performance measure, ROI is used to evaluate the efficiency of an investment or to compare the efficiencies of several different investments. In purely economic terms, it is one way of relating profits to capital invested.

TOTAL BENEFITS - COSTS

Year 0	Year 1	Year 2	Year 3	Year 4
(312780)	127000	127000	127000	127000

Table 11: List of benefits-costs

CUMULATIVE NPV (TK)

Year 0	Year 1	Year 2	Year 3	Year 4	TOTAL
(312780)	(185780)	(58780)	68220	195220	195220

Table 12: List of cumulative NPV

Now, we are willing to find the Return on Investment for our project.

RETURN ON INVESTMENT = 195220 / 23804780 = 0.82%

So, from the calculations it can be easily state seen that the return on investment value is very close to 0.82% which indicates that our return will be 0.82 times of our investment on the project.

BREAK-EVEN ANALYSIS

Break-even analysis is used to determine the point at which revenue received equals the costs associated with receiving the revenue. Break-even analysis calculates what is known as a

margin of safety, the amount that revenues exceed the break-even point. This is the amount that revenues can fall while still staying above the break-even point. Break-even analysis is a supply-side analysis; it only analyzes the costs of the sales. It does not analyze how demand may be affected at different price levels.

BREAK-EVEN POINT = 2 + (127000-68220) / 127000 = 2.46 YEARS

We can see from the calculations that the Break-Even Point is just 0.375 year which is approximately 2 years and 6 months. The break-even point is small which means the project is highly profitable. This is mainly because of the total money we are receiving from the sponsors as well as the hospitals. There are many hospitals and clinics in Dhaka city, so if they just give 10% of their appointment fees to us since the appointment is made through our websites we can easily earn a huge amount of money easily. And this is one of the reasons why the break-even point value is small.

ORGANIZATIONAL FEASIBILITY

Organizational feasibility determines a system whether is user friendly or not. We will create a system which will fulfill the conformability of all type of user. Blood Bank Management system will be feasible to the user who need blood urgently and do not trust the local blood bank because of their dishonesty. It will also help donors as common people to communicate and find them in a more organized way. It will also save their time to get popularity. We will be providing search facility so that user can find donor according to blood group.

System Description:

This system is designed for blood donors and users. It gives detail idea where users get the information. Online Blood Bank management system is to provide services for the people who need blood by getting help from the donors who are interested in donating blood for the people. Basically, there are some main modules in the system. These are —

<u>ADMIN</u> - Admin can manage both donors and acceptors. He can add or remove any
user from the system. Each member donor and acceptor is given a user id and
password, which identifies him uniquely. Admin can change donor details, delete
donor or change the password.

- 2. <u>DONORS</u> From this module user can create their account, when user create his account the user gets a user id and password which identifies him uniquely. From this module user can search donor for blood and can also refer his friend to become a donor. Donor can also get information like when he donated blood or when he will be able to donate blood.
- 3. **DONOR REGISTRATION**-Donor must fill up the registration form by giving total details such as name, city, sex, mobile phone, email, age, blood group.
- 4. <u>ACCEPTORS</u>-This module helps user to find blood group. Then user click on find a blood group that he want to search. After entering the blood group, system search for the availability of the blood group and give him the list of the donor.
- 5. <u>LIFE SAVING CONTACTS</u>- They are the contacting persons whom will be assigned by us. If anyone doesn't find a donor he/she can contact these persons. They will help them out to find a donor.

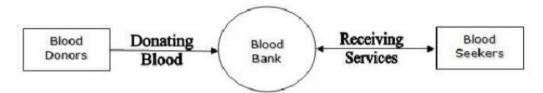


Figure 1: Diagram of Contact Option

TIMELINE:

We will take at most 3 months to complete the prototype and then we will launch it in the market. After that we will be taking reviews from the users for approximately 6 months and after that we will work again for another 3 months to complete all the updates and bring the 2^{nd} version of the system. The same process of taking reviews from the users and updating the system will be carried on.

Analysis:

The goal of online blood bank management system is to ensure all the acceptors and donors to find what they actually want in their need of blood. In our country, the blood bank management is manual. That is why we will make an online blood bank management system

which will help all the users, donors, hospitals and other healthcare facilities. Every project or management system needs some requirements to run or build it. Requirements gathering is the process of generating a list of requirements (functional, system, technical, etc.) from the various stakeholders (customers, users, vendors, IT staff, etc.) that will be used in the system. "Requirements gathering" can be categorized in some parts which are given below —

- 1. Functional Requirements
- 2. Non-functional Requirements
- 3. Hardwire Requirements
- 4. Software Requirements
- 5. Performance Requirements

FUNCTIONAL REQUIREMENTS:

The Functional Requirements Specification documents the operations and activities that a system must be able to perform. A functional requirement, in a system, is a declaration of the intended function of a system and its components. Based on functional requirements, a developer determines the behavior (output) that a system is expected to exhibit in the case of a certain input. A system design is an early form of a functional requirement. So the functional requirements of blood bank management system is given below —

- 1. <u>Login of Admin:</u> Log into the official blood bank website. System is shown the all features of the system. Click the "Login of administrator". The system will be asking for the user name & the password. Admin provides the username & the password and then system does authentication. Main application relevant to admin is displayed. If the authorization fails a message will be given to admins that the provided password is wrong.
- 2. Change the password: When admin will choose the change password option the system will show current password, new password, re-enter the password to confirm it. After the admin gives all the input the system will start authentication process and store the new password in the database. If this fails a message will be shown that "the current password is wrong" and tell the admin to re-enter the password.

- 3. Register the donor by himself: When someone wants to be a donor he/she must have to click the registration button. After that system will display a registration form and the donor must fill up the form. After that system will do authentication. If everything is filled up then it will show a message that donor registration is completed and store all the details in the system database. If donor doesn't provide all things a message will be shown and ask again to give all the details that a system needs.
- 4. **Register the donor by admin:** Admin can also do the registration of a donor by giving all the inputs after verifying it.
- 5. **Donor:** After the entry in the website a donor can click the donor login button. There they have to provide username, passwords. After verifying it by the system donor can change password, username, contact details, personal details by himself/herself. If anything goes wrong the system will show a message to donor.
- 6. <u>Users & hospitals:</u> Common user can enter the website and they can click the blood group they want. After that the system will show donor with the respective blood and the details of the donor. In the website there will be given the contact information of donor, other blood banks which will help hospital and other healthcare facilities.
- 7. Withdraw registration details by donor: Donor can withdraw registration details.
- 8. Withdraw registration details by admin: Admin will be also responsible for withdrawing details of registration.

9.

10. <u>Connection of other blood banks:</u> If any blood bank want to connect with our website they have to send a mail to the admin or the authorities with their details. After verifying it the authority will contact them.

Non-Functional Requirements:

In system engineering and **requirements** engineering, a **non-functional requirement** (NFR) is a **requirement** that specifies criteria that can be used to judge the operation of a system, rather than specific behaviors

There are some key points in Non-Functional Requirements.

<u>Security:</u> Security means controlling the user access and safety of users' data. We have to keep their addresses and contact numbers private. We are also providing secure communication channel for the data.

<u>Concurrency and Capacity</u>: Our system is going to be able to handle multiple computations executing simultaneously, and potentially interacting with each other. There should be minimum, average and maximum number of concurrent users. It is also indicating how much data we can store.

Reliability: Users have to trust the system, even after using it for a long time. Our Blood Bank Management System is also optimistic in this section. In our system data transferred in a reliable way and using trustful protocols. It also indicates notifying about the system transactions and processing

<u>Maintainability:</u> We need regularly preventive and corrective maintenance. Maintenance might signify scalability to grow and improve the system features and functionalities. Then the system will run well.

<u>Usability</u>: A project success depends on end user's satisfaction and acceptance. We gave importance in this from the beginning. Taking the user experience requirements into account from the project concept is a winning bet, and it will especially save a lot of time at the project release as the user will not ask for changes or even worst misunderstandings.

Documentation: Last but not least, our project requires a minimum of documentation at different levels. In many cases the users might even need training on it, so keeping good documentation practices and standards will do this task spread along the project development; but as well this must be established since the project planning to include this task in the list.

HARDWIRE REQUIREMENTS:

As it is an online based blood bank management system it requires some hardwire performances. The minimum hardware requirements are,

- 1. Intel Core i7 7TH generation
- 2. 8 GB DDR4 RAM
- 3. 1TB hard drive
- 4. Internet

5. External hard drive

SOFTWARE REQUIREMENTS:

1. Operating system: Window 7 & higher

2. HTML

3. CSS

4. Language: JavaScript, PHP

5. Database: MYSQL server

PERFORMANCE REQUIREMENTS:

The system should run smoothly in any device. The response time for occurs a change will be no more than 4 seconds. The response time for access the database will be no more than 5 seconds. Performance is generally perceived as a time expectation. This is one of the most important considerations especially when the project is in the architecting phase. Choosing the right technology is crucial at this point.

Requirements Gathering:

Knowing how to gather requirements is a skill that every analyst, and project manager, – should have. However, it seems to be a skill that is generally lacking in many organizations. Poor requirements gathering is a major cause of project problems in many organizations.

Gathering requirements is more than just asking a few questions and then proceeding to the next step in the lifecycle. We have gathered our requirements by following these techniques.

- 1. **Taking Interview:** Interviews of users and stakeholders are important in creating wonderful software. Without knowing the expectations and goal of the stakeholders and users it is very difficult to build up a system. That is why we took interviews from different stakeholders like common people, doctors, donor, developer of online based management system, researchers, authorities of hospitals, specialists.
- 2. **Survey:** When gathering information from many people: to many to interview with time constraints and less budget: a questionnaire survey can be used. The survey_insists the users to choose from the given options agree / disagree or rate something. We also conducted a survey from different stakeholders to collect these requirements.

- 3. **Report:** We recorded all the answers of specialists, businessman, common people about the requirements we need to build up a system and then we made a report based on this.
- 4. **Joint Application Development (JAD):** We had a session where project manager, facilitators, scribes, developers, users worked together to conduct interviews, form agenda, prepare questions. We conducted total 4 JAD sessions to collect information about requirements.

Diagrams:

After learning about requirements, we create some way to design our system. There are some diagrams that will help us to understand our system more efficiently. Those diagrams are:

- a. Class Diagram
- b. Use case Diagram
- c. Activity Diagram
- d. Behavioral State Diagram
- e. Sequence Diagram

The diagrams are given to give everyone a better understanding about the inner working of this blood bank management system and how it would interact with the business system and cater to the needs of the end users.

Class Diagram:

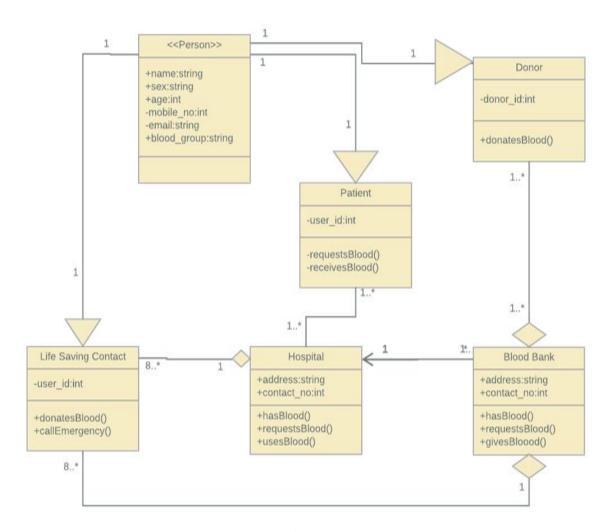


Figure 2: Class Diagram

Use Case Diagram:

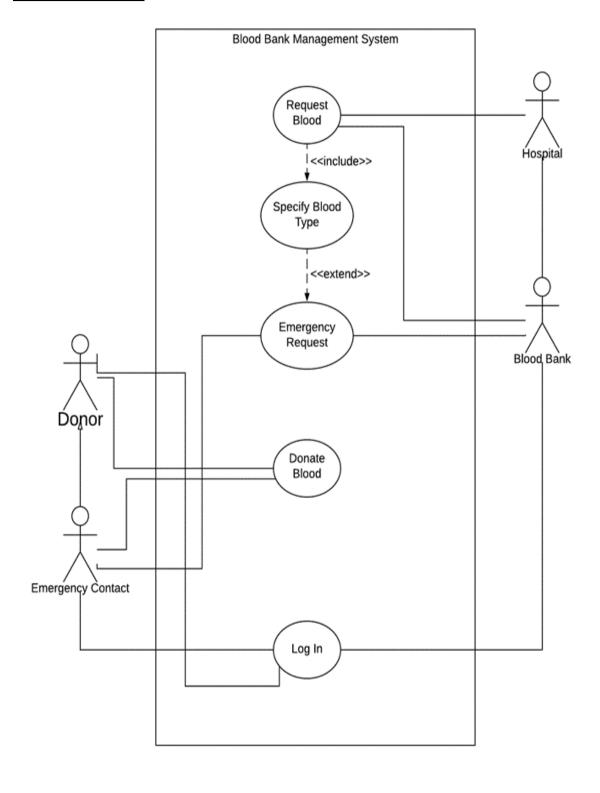


Figure 3: Use Case Diagram

Activity Diagram:

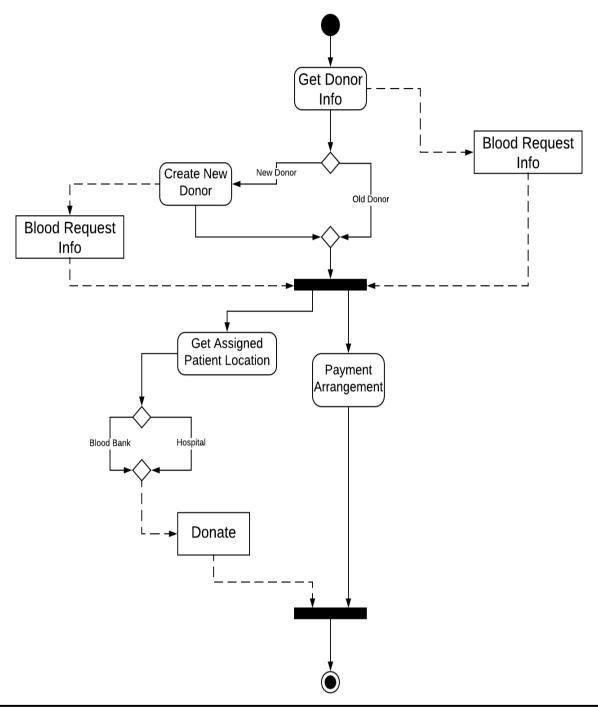


Figure 4: Activity Diagram

Behavioral State Machine Diagram:

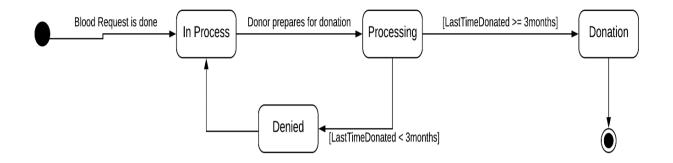


Figure 5: Behavioral Machine State Diagram

Sequence Diagram:

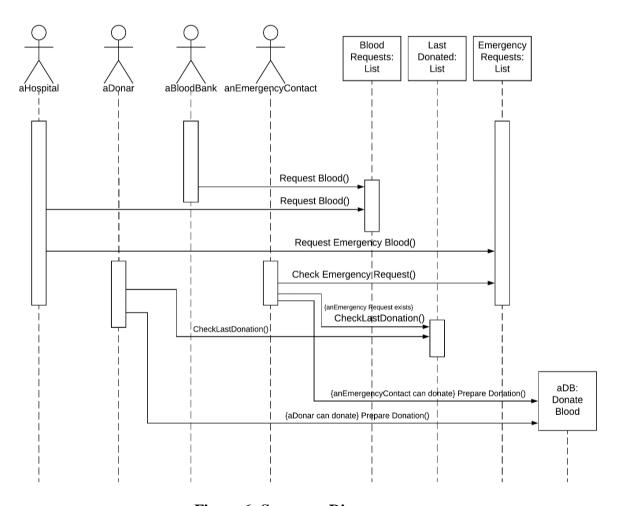


Figure 6: Sequence Diagram

Function point:

In the analysis part, we also have to look at the functional point which is used to

- 1. Estimated system size
- 2. Effort that will be required
- 3. Time the project will require

Estimate system size:

System size is an activity in software engineering that is used to determine or estimate the size of a software application or component in order to be able to implement other software project management activities. It is like measure of program size that is based on the system's number and complexity of inputs, outputs, queries, files, and program interfaces. The project manager records the total number of each component that the system will include, and then breaks down the number to show the number of components that have low, medium, and high complexity. For the Blood Bank Management System we will use COCOMO model to estimate the system size. The components of the system along with the complexity is given below.

			Complexity			
Description	Total number	Low	Medium	High	Total	
Inputs	7	4 *3	2*4	1*6	26	
Outputs	19	10*4	5*5	4*7	93	
Queries	30	17*3	8*4	5*6	113	
Files	40	15*7	15*10	10*15	405	
Program Interfaces	4	3*5	0*7	1*10	25	

Total(TUFP)			665

Table 13: List of Estimate system size

Overall system:

Processing complexity

Data communications	3
Heavy use configuration	2
Transaction Rate	0
End-user efficiency	5
Complex processing	0
Installation ease	0
Multiple sites	
Performance	
Distributed functions	0
Online data entry	2
Online update	2
Reusability	2
Operational ease	4
Extensibility	0
Total Processing complexity	20

Table 14: List of total processing complexity

Here the number shows the level of effect on processing complexity. 0 means no effect on processing complexity.

From this we can get the **Adjusted Project Capacity**:

APC factor has a baseline value 0.65

0.65 + (0.01*20) = 0.85

Total Adjusted Function Points (TAFP):

0.85(APC) * 665(TUFP) = 565.25

Lines of code:

Language	Approximate number of lines of code per function point	Total
JAVASCRIPT	22	14630
PHP	27	17955

Table 15: List of total lines of code

Estimate effort (person months): The formula to find out the estimate effort is -

1.4*KLOC (KILO LINE OF CODES)

So, for the blood bank management system we use JAVASCRIPTS, PHP. So we have to estimate effort for each language.

For JAVASCRIPT

1.4 * 14.63 = 20.482

So, to develop the system in JAVASCRIPT we need 17.14 person-months effort.

For PHP

1.4 * 17.95= 25.13

So, to develop the system in JAVASCRIPT we need 21.04 person-months effort.

Estimate Time required: The formula to find out the estimate time required is

3.0* person month^{1/3}

For the blood bank management system estimate time required -

For JAVASCRIPT

$$3.0 * 20.482^{1/3} = 8.208$$
 (months)

For PHP

$$3.0 * 25.13^{1/3} = 8.78$$
 (months)

DESIGN:

There are two diagrams which will represent the architectural view of our blood bank management system. These are

- a. Data Flow Diagram (DFD)
- b. Entity Relationship Diagram (ERD)

Data Flow Diagram:

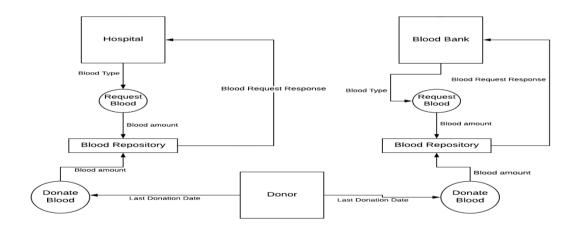


Figure 7: Data Flow Diagram

Entity Relationship Diagram:

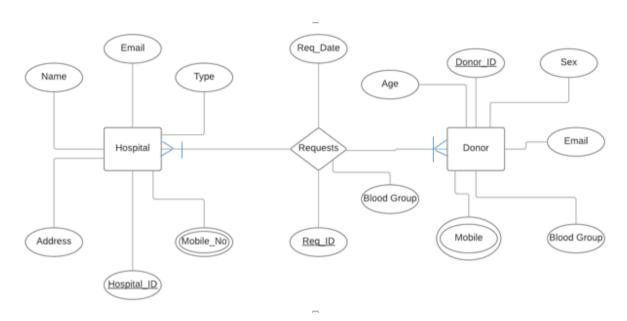


Figure 8: Entity Relationship Diagram

INTERFACE DESIGN: For our interface design, we worked according to the models and ended up with the following results that would please both the donors and the hospitals who would be procuring our services.

Home Page:

This is the home page or the main page_of a blood bank management system. This is the main page of a client side. This page define all about related to project



Figure 9: Home Page

Donor Registration:

Registration page includes the information of the donor who want to register. Donor can register the account by clicking on new register. He/she can add the account for the further enquiry of the blood donation.



Figure 10: Donor Registration

Send Request:

Send Request page for the users for those who wants blood. By filling up some query they can request for blood.



Figure 11: Send Request

Donor Login:

This page is for registered donor who wants to access their profile. By giving email and password, they can access the donor panel.





Figure 12: Donor Log In

Donor Panel:

This page is the welcome page of the donor panel. In this page include all the module related to Donor like:

Change password

Update profile

Blood donated

View requested

Logout





Figure 13: Donor Panel

Hospital Login:

Hospitals will also have a unique id and password. After giving the correct combination, they can access our system and request for blood.



Figure 14: Hospital Log In

Hospital Panel:



Figure 15: Hospital Panel

Search: Search button is used for search the donations of blood for a different defferent blood groups.

Blood groups name

- A-
- A+
- B-
- B+
- AB+
- AB-
- O+
- O-



Figure 16: Search option

Contact:

In contact page, anyone who wants to need a blood or gaining a information about this system then he/she can contact with us.



Figure 17: Contact

About:

This page is basically a letter from the founders.



Figure 18: About

Implementation:

Through writing the program and creating and testing the user interface with the database, we could ensure the working status of this blood bank management system. Further beta testing and changes will be required after it is exposed to the target audience. Of course, upgrading the system from time to time will be a necessary step for a fruitful project. Lastly, there will be a support group set up to help the customers with the usage of the system and a training program set to talk about the scopes of the system and how it can be used to our benefit.

Conclusion and Future work:

To sum up, we wanted to make a system for donors, patients, hospitals and users to help them to save their time, money and hassles. We want to spread our system in whole country in future. We also want to add reviews for donors & hospitals, maps of the location and pay bill through online and encourage more sponsors to collect more money and spend it to more upgradation of the system. Thus, donor management system of our system will be more effective in future.