



اوتنوورسيتي تكنولوجي مارا

UNIVERSITI TEKNOLOGI MARA
FACULTY OF INFORMATION MANAGEMENT

**BACHELOR OF INFORMATION SCIENCE (HONS.) INFORMATION
SYSTEM MANAGEMENT
(IM245)**

**IMS607:
ADVANCED WEB DESIGN AND CONTENT MANAGEMENT**

**INDIVIDUAL PROJECT:
BLOOD DONATION SYSTEM (BDS)**

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12 JUNE 2018**

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BLOOD DONATION SYSTEM (BDS)**

by:

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Kelantan Branch

12 JUNE 2018

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Alhamdulillah, thanks to Allah the Almighty for His will, I have the chance to finish up my individual assignment for subject 'Advanced Web Design And Content Management' IMS607 from the first word till the end point within the specific period. Many barriers that I have faced within the time to finish this work. First of all, I want to impress my appreciation to Mr. Mohd Rahimi Mohd Rosman, my lecturer for his guidance and comments to make sure that I will gain experiences and knowledge in order to finish this assignment.

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1.0 INTRODUCTION/ OVERVIEW OF THE PROJECT

The problem of blood donor deficiency in Malaysia has long been raised by the 'Pusat Darah Negara' (often abbreviated as PDN) of Malaysia. According to the Dr. Noryati Abu Amin, Director of PDN, she said that Malaysia needs 2,000 blood bags per day to cater for patients in all hospitals under the Kementerian Kesihatan Malaysia (KKM) to all state in the Malaysia. This become a serious problem when the festival comes. Either festival for Malays, Indian or Chinese, the amount of blood supply is decreased during that time. Some people believes that this happen because of people are busy in handling the festival and what they know about festival is just enjoy rather than think about people who suffer in the hospitals.

Blood Donation System (BDS) is the system that will help PDN in solving all the problems related to the problem of blood donor deficiency. The system that will be created can be used by all the people age from 18 until 65 years for who have donated before and 18 until 60 for the first timer. As already outline by PDN, this system will not violate any prohibitions that have been outlined. It is a friendly used system where the staffs and user can be easily understand how to used or register into the system.

People can be easily register as one of the blood donor before they officially donate their blood. This means that, this system are functioning as a medium to tell the hospital that when the hospital does not have a stock of blood, they can trace from the system the most nearest donor and they can request the donor to come to donate their blood. But before that, people must register first their details like name, identification card number, address, and others. So, when the registration is made, it can assist staffs in hospital when they need a donor.

Besides that, when the stock of blood bags is decreasing, staffs also can used this system to call and make an appointment with the donor to come and donate their blood to the hospital. So that, with an unbreakable amount of donors who donate blood, this system will ensure and help hospital from running out of blood to be used for medical purposes.

2.0 STATEMENT OF PROBLEM

2.1 No information regarding the blood inventory

This problem has always been raised by the staffs in the hospital. No information regarding the blood inventory become one of the problem because of staffs of the hospital cannot predict how many blood bags they have used and need in future. They did not have a system inventory which help them to know how many bags of blood they received in a day and how many bags of blood has been used. An inventory is really important actually to help the process of receiving and taking the blood bags become more systematic as the problem will not occur in the future. Besides, most of us knows that people cannot predict when the accident will be happen. It can be now, tomorrow or next month. Same goes to the staffs and doctors who work at the hospital. They cannot predict when a large number of blood will be used. When a lot of accident or cases happen and suddenly the stock of blood run out, it gives a tense to all of the staffs. With the blood inventory provided in the Blood Donation System, this problem can be avoid.

2.2 Lack of awareness among society

Awareness among society is really important to ensure the continuity of blood to be used is always there. The problem that always occur among society regarding the blood donation is about awareness. When there is a lack of awareness among society, for sure the possibility of the hospital in gaining the blood from the society is really low. When the question are asked to some people about the reason why they did not want to donate their blood, the answer is really frustable. First, they said they scared of the pain. This mentality need to be wash from some of people because of if all people scared then who will be donate a blood to the people who need it. Second is, they said they does not have a time and busy with their works. Well, in Malaysia, Saturday and Sunday is the days where people are leave from their work. So, the reason they did not have a time to spend only to donate their blood is ridicolous. Awareness among society need to be improve as people lives together to help each other in solving problem like lack of a blood donor.

2.3 There is no platform to register as a new donor

People in Malaysia mostly realized that there is no specific platform for them to register as a donor if they are a new donor. When there is no platform for them to register as a new donor, they tend to not donate their blood as when they register manually during the blood donation program, it take plenty of time to register. Besides, it is only a luck for them if there is a blood donation program in their area. So, this is means that they usually does not have a platform to be inform when the hospital will held a blood donation program and the date is. In Blood Donation System, besides people can register as a new donor, they also can have an information when the next blood donation program will be held. So basically people will prepare theirselves for the donation of blood. This situation also will help their time management in their daily life so, this system is really usefull.

3.0 DEVELOPER PROFILE



Masni Aida Binti Majid
Blood Donation System Developer

Academic Qualification

- Master of Science in Information Technology
- Bachelor Degree in Information Science (Hons) Information System Management
- Diploma in Information Management

Work Experience:

- Used to work as an admin at Sime Darby
- Had an experience as an IT expert at PETRONAS

Salary:

- RM 10,000.00

Roles and Responsibilities

- Analysing user requirements
- Writing and testing code, refining and rewriting it as necessary
- Researching, designing and writing new software programs
- Evaluating the software and systems that make computers and hardware work
- Developing existing programs by analysing and identifying areas for modification
- Integrating existing software products and getting incompatible platforms to work together

4.0 AIMS/ OBJECTIVES OF THE PROJECT

4.1 To enhance the hospital in providing information about blood inventory

Staffs in hospital usually has a difficulty in knowing about blood inventory information. Blood inventory information contain information about how many blood of bags has been received in a day and how many blood of bags has been used by the patients. With the development of Blood Donation System (BDS), staffs will be more aware about the quantity of the blood bags that used and needed by the hospital. So, the probability of the blood is run out unexpectedly will not be happen as they always will be aware when they need a blood donor. If the blood is decreasing, staffs also can used this system and contact the donor that have register as a donor in the system to come and donate their blood.

4.2 To inculcate attentional attitudes among society against patients

Attentional attitudes is the important thing that need to be applied in every people who lives in Malaysia. With this attitude, people will aware and know their responsibilities as netizen to help others who need the help. With the development of this system, this attitude indirectly will be applied as after they register to be a donor, they will be contacted to their nearest hospital to donate their blood when the hospital need it. Besides, people will be more aware when they need to help others when they are in

4.3 To provide a platform for a new donor to register as a donor

In Malaysia, donors mostly have a difficulty in registering themselves as a blood donor because of there is no platform for them to used. Another objectives of this system is to provide a platform for them in register as a donor. Besides, this platform can reduce their time by just using their mobile phone and access anywhere to this system. What they need is just mobile phone or a laptop and the most important thing is they must have an internet. People nowadays cannot be part from their mobile phone and the internet. So, the development of this system will not give a problem for people as they have a way to access to this system and they know what they need to do when register as a new donor which is just fill in the information needed by the system.

4.4 To assist people who need the blood in recovering their sickness

This system of course it is functioning as a medium to be used in helping people who need it. If there is no donater then who will help those patients to recover their sickness? So with the help of this system, people can easily register as a donater and can repeat to donate their blood. Sometimes, hospital control the used of blood as so many people will need a blood to recover their health. This always happen during the holiday, where in that time usually there will be a lot of accident happen. So, the probability of the patient to lost a lot of blood is high. With this system, people who need a blood in recovering their sickness will be assist.

4.5 To enhance Pusat Darah Negara (PDN) in solving blood donor deficiency problem in Malaysia

As mention by the director of Pusat Darah Negara (PDN) of Malaysia in Sinar Harian newspaper, Malaysia are facing problem of blood donor deficiency. Thus, by developing this system, for sure it will help PDN in solving this problem. Known as one of the government organisation that responsible in handling blood matters for the hospital, people put a high trust to the PDN. So, with the system, PDN can solve the problem they always faced.

5.0 SCOPE OF THE PROJECT

Blood donation system has its own scope that covers and related to each other's. For the first scope, this system only can be register by a person age between 18 until 65 years for who have donated before and 18 until 60 for the first timer. As already outline by PDN, this system will not violate any prohibitions that have been outlined. It is a friendly used system where the staffs and user can be easily understand how to used or register into the system. In term of gender, both male and female can register and there is not restriction for any specific gender. It is open to all people that age as mention above.

Second, this system also will provided information for the staff regarding the blood inventory. Blood inventory is actually the status of receiving and used of blood bags in a day. So with this features, staff are able to estimate when the stock of blood will be finish and they can find an initiative to get a blood donor. Blood inventory is really important because of it provided all the kind information about the date of receiving and used of blood bags, what kind of blood they used and received, from who the blood is and which hospital the blood bags is located. So that, the process of receiving and used of blood will become more systematic as all the information regarding the blood inventory is there.

Third, by using this system, staffs are able to make a call to a donors who have register in this system. As mention in the first scope, people who aged range from 18 to 65 can register as a blood donor, so when the information about the donor has been insert into this system. Staffs can make a call to them when they need a blood or in other words when the stock of blood is decreased they can used this initiative. Hospital usually will always do an extension services by doing a bood donation campaign in a mall, academic institutions and others. Why this features is proposed in this system? This is because of before this, in manual way, when people register as a blood donor, they will be given a donor card which all the history of their blood donation will be stated in that card. The problem is, when the card is missing, they cannot recover or retrieve back the history of their donation. So, this system can control all the information and people no need to worry with their information.

6.1 PLANNING

In developing a system, of course there is must be a planning. Without planning, developer will develop a system that does not meet the users need. Planning is actually involves a general overview of company and their objectives. If the system that will be develop is not linear with the objectives of the company, there will be a problem occur in the future. Planning also include the assessment of flow and requirements. Same goes to the Blood Donation System (BDS), the initial assessment has been done through the readings. So basically, Blood Donation System (BDS) is a system that cover the whole hospital in Malaysia and of course it is related to the medical field. For this system development, planning take about two months to be accomplished and it involve initial assessment and feasibility study

6.2 ANALYSIS

After the planning, analysis is the next step that involved. Well everybody know that analysis is done in order to examined the problems in a greater details thorough audit of user requirements. For Blood Donation System (BDS), all the problem and factor that lead to the problems is analyse. Example of the factors and problems that has been analyse is people does not diclosed to the importance of donating their blood. So, by developing this system, people actually will aware and know when they is needed to help people. In this stage also, the existing hardware and software systems are studied. This means that, what are the hardware and software is needed in order to accomplish this tasks. For this project, laptop of course is needed and software like adobe dreamweaver and others.

6.3 DESIGN

Next, after the analysis, design is the next step should be consider when developing a systems. Usually, design will includes all necessary technical specifications. In the simplest words to be understand, design is about how the interface of the system will be look alike, how actually the database is running and others. Most of people know that, in order to ensure that the system is easy to be used by the users, the interface of the systems must be user friendly. Which means that, eventhough it is the first time users look or used the systems, they will be able to handle it without someone's guide. So, for Blood Donation System (BDS), user friendly interface is really considered as people from the different will used this system.

6.4 IMPLEMENTATION

When the system is design according to its requirements, the implementation process will take it place. Implementation is about how the system is starting to be used and implement all its functions. In other words to be understand, with all the information that gained from the users, how the informations is encode to the system and give the output to the users as they expected. In this stage also involved the installation of the hardware and the application programs like wamp server, adobe dreamweaver and others. Cycle of coding, testing and debugging continues and repeating until the systems is ready to be deliver to the users. Same goes to the Blood Donation System (BDS), when all the information and analyse has been done, the thing that developer will do is implement all the information that gained to the system that will be created. When the system are ready, user authorization is needed as to ensure whether user can accept and able to used the system by doing user acceptance test or either pilot study.

6.5 MAINTAINANCE

Last step in developing a system is maintainance. As most people know, there are three typesof maintainance activity involved usually. Which is corrective maintainance, adaptive maintainance, and perfective maintaince. For corrective maintainance, when there is a problem occur, it will be solve solve when it is identified. For adaptive maintainance, the improvement of the system will be done like for example by adding new features to the system. Lastly is perfective maintainance where the system is make it available to the various platform when it is needed. As for Blood Donation System (BDS), when all of the function and things in the system has been accomplish, all of the requirement in maintaining the system will be take as a serious matter.

7.0 ESTIMATED BUDGET AND COST REQUIRE OF THE PROJECT

To develop a system, budget and cost require should be consider by the developer. Usually the budget and cost refer to the thing that will be used to accomplish this project. Its include hardware, software and even a programmer. As most people know, hardware and software is the most important thing to ensure the development of system is success. The budget and cost require for the system as shown in the table below:

TABLE 2: HARDWARE AND SOFTWARE COST REQUIRED

Categories of hardware	Function	Price
Laptop (Acer)	As a medium used to create the system, where whithout it, the system cannot be create	RM 2500.00
Printer (Canon)	Used for printing in other to print support article, poster, user manual and others.	RM 250.00
Categories of software	Function	Price
Adobe Dreamweaver	Used to create system by using computer language which is the combination of HTML coding, CSS coding and PHP coding.	No charge
Adobe Photoshop	Tools for editing especially for picture	No charge
Wamp Server	Web development platform on windows that allow people to create dynamic web applications	No charge
phpMyAdmin	Supports a wide range of operations on MySQL.	No charge
Local Host		No charge
TOTAL: RM 2750.00		

8.0 HARDWARE AND SOFTWARE DETAILS USE IN THE PROJECT

TABLE 3: HARDWARE AND SOFTWARE DETAILS

HARDWARE		
Hardware	Specification	Function
Laptop	Type: Acer Intel Core i5-4200U 1.5GHz NVIDIA GeForce GT 740M 2GB dedicated VRAM 4GB DDR3 L Memory 500 GB HDD Windows 8.1 Single Language 64-bit	As a medium used to create the system, where without it, the system cannot be create
Printer	Type: Canon E500	Used for printing in other to print support article, poster, user manual and others.
SOFTWARE		
Software	Specification	Function
Adobe Dreamweaver	CS6	Used to create system by using computer language which is the combination of HTML coding, CSS coding and PHP coding
Adobe Photoshop	CS6	Tools for editing especially for picture
Wamp Server	64 bit	Web development platform on windows that allow people to create dynamic web applications
phpMyAdmin	Version 4.7.4	Supports a wide range of operations on MySQL.
Localhost	Version 3.1.0 - 64bit	

9.0 SYSTEM FLOWCHART/ DIAGRAMS

9.1 Login flowchart

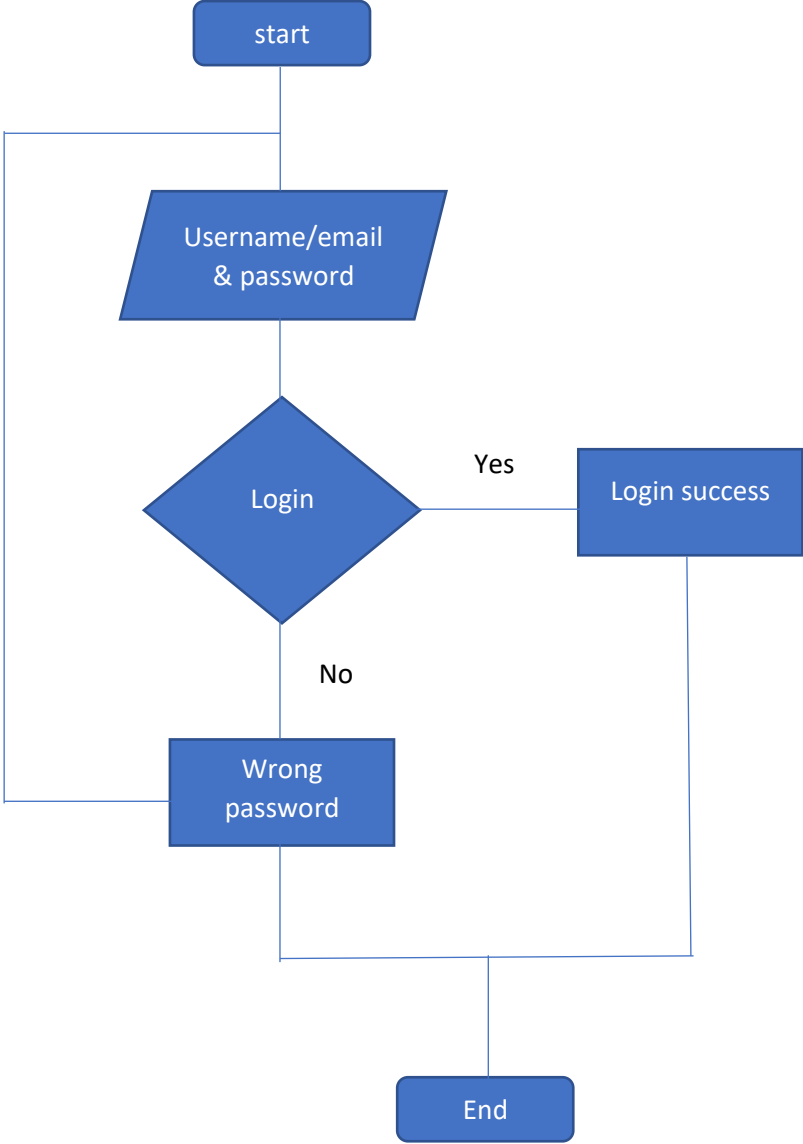


FIGURE 1: FLOWCHART FOR LOGIN

9.2 Registration

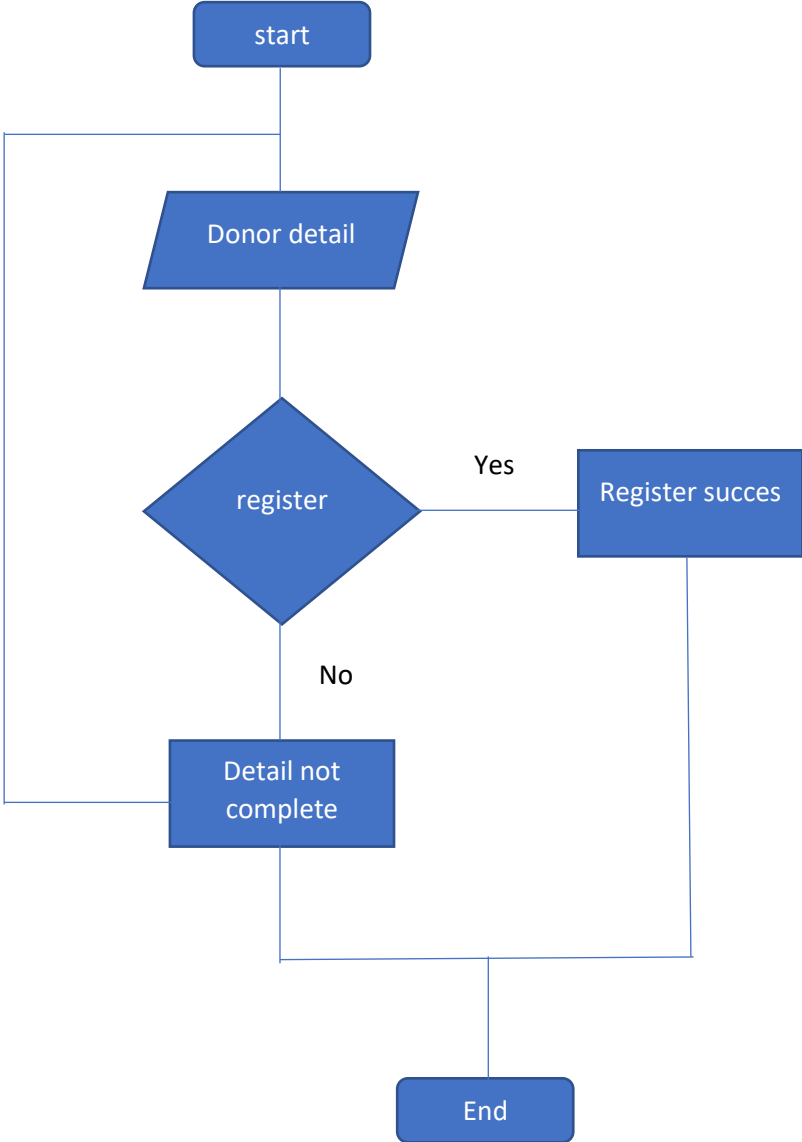


FIGURE 2: FLOWCHART FOR REGISTRATION

9.3 Entity Relationship Diagram

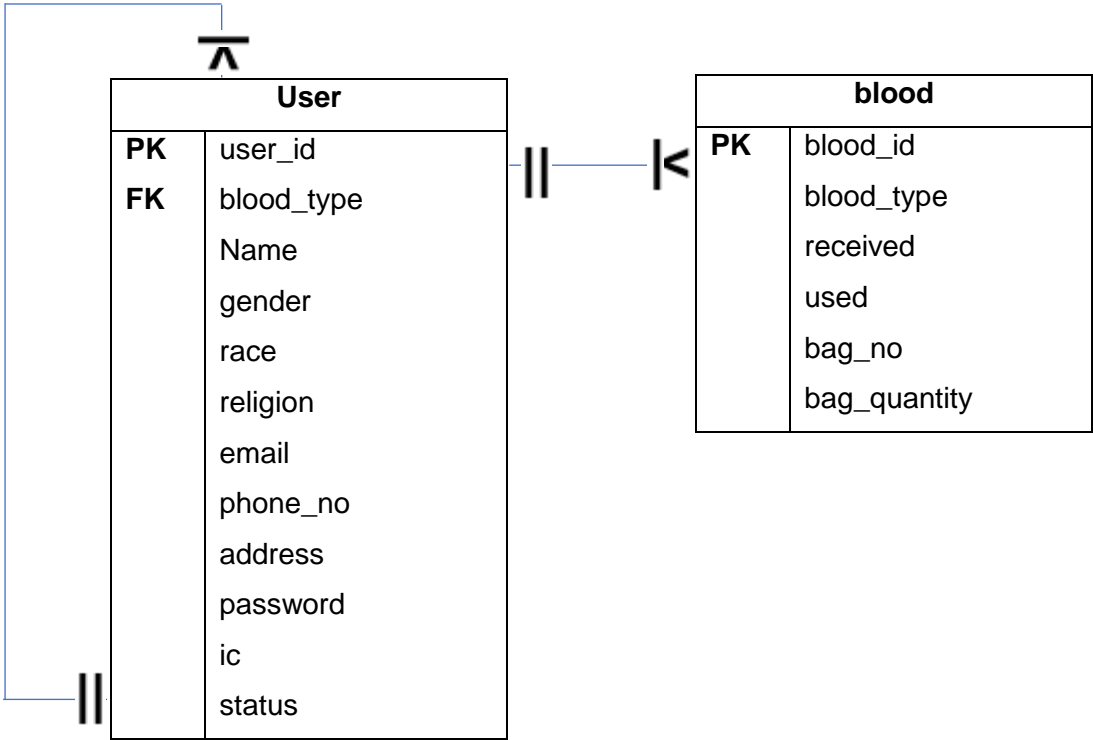


FIGURE 3: ENTITY RELATIONSHIP DIAGRAM FOR THE SYSTEM

Business rules:

1. One user can donate blood for many time
2. Many blood can come from one donor
3. One staff can manage many user
4. Many user can be manage by one staff

10.0 STORYBOARD, WEB SYSTEM STRUCTURE AND NAVIGATION

10.1 storyboard

Homepage



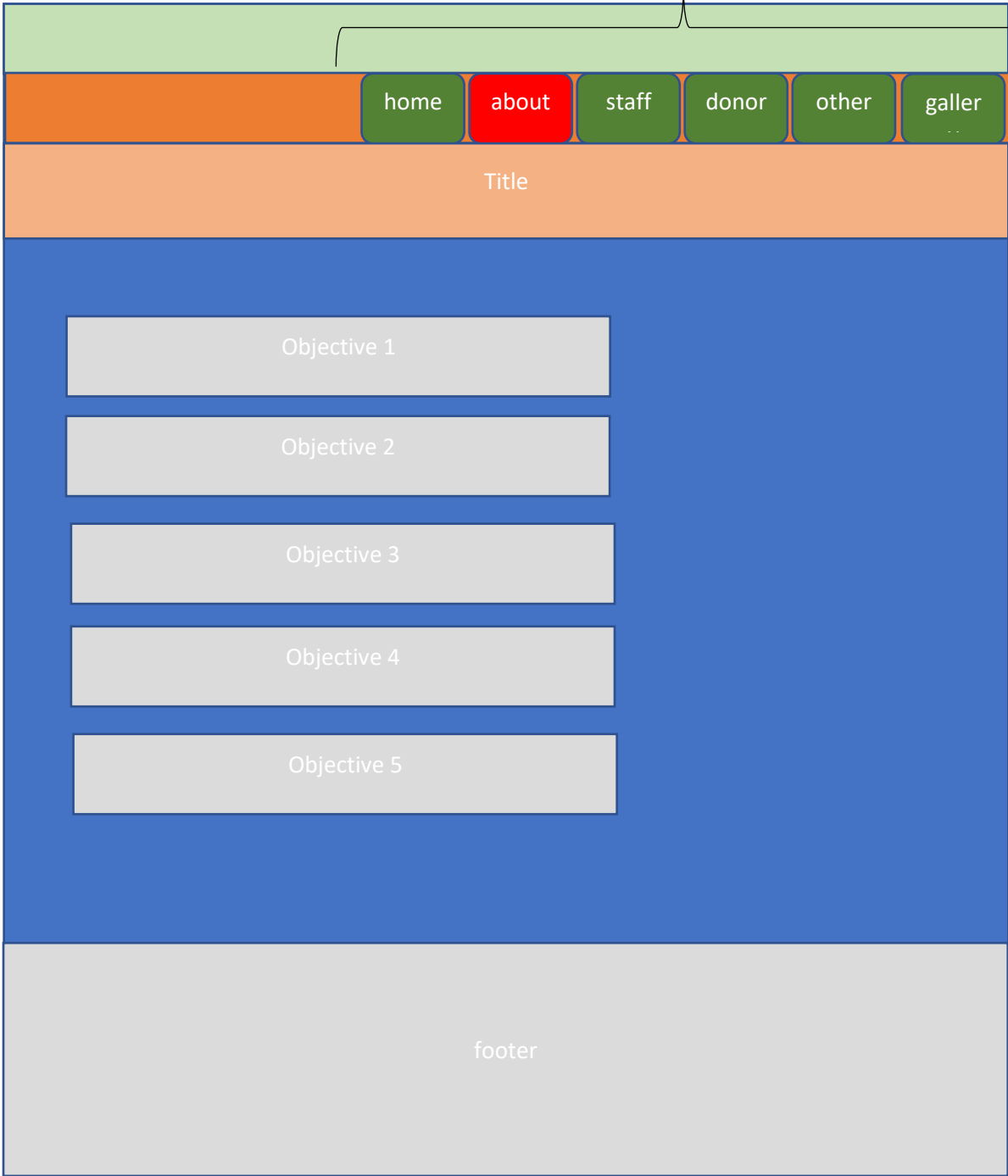
Introduction

Button



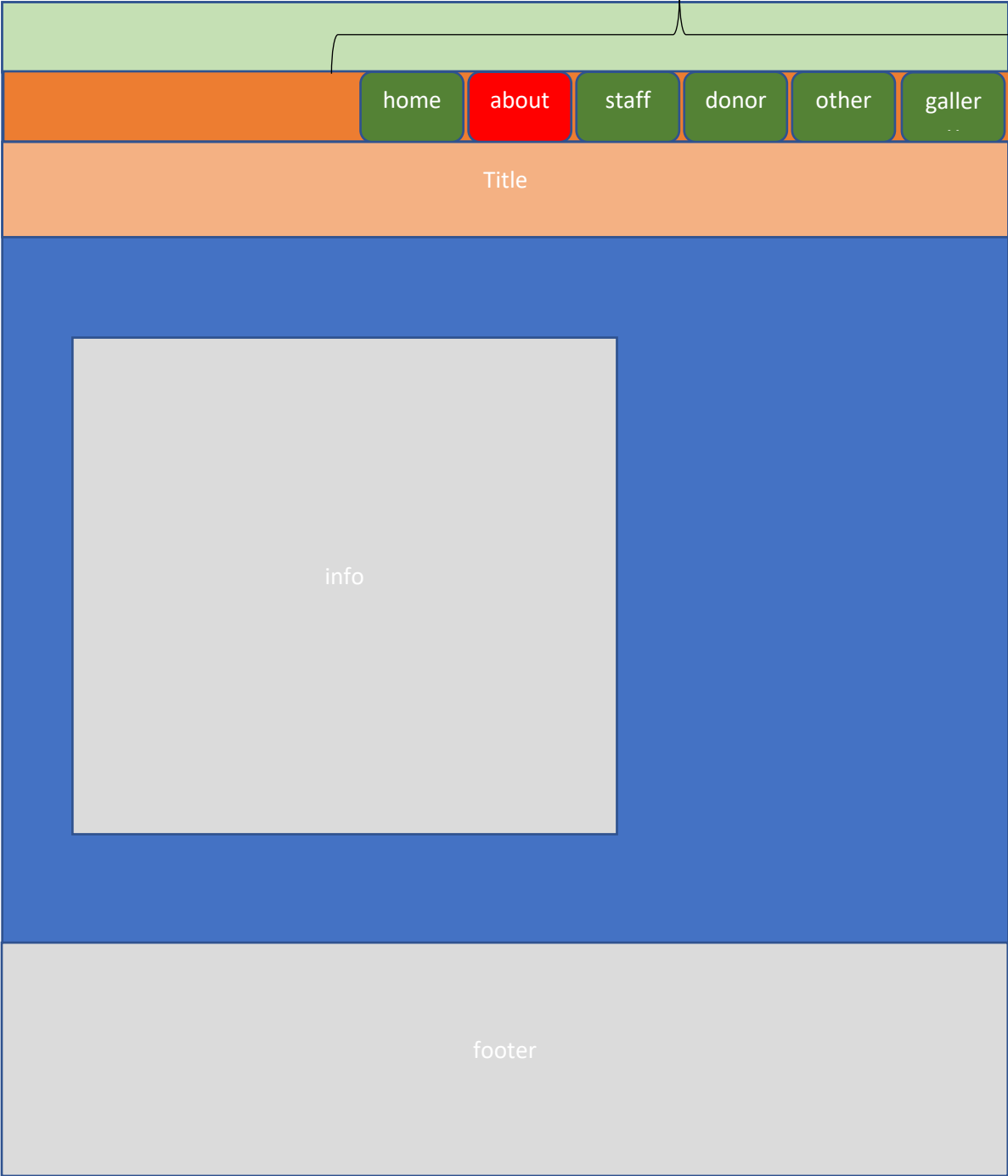
Objectives

Button



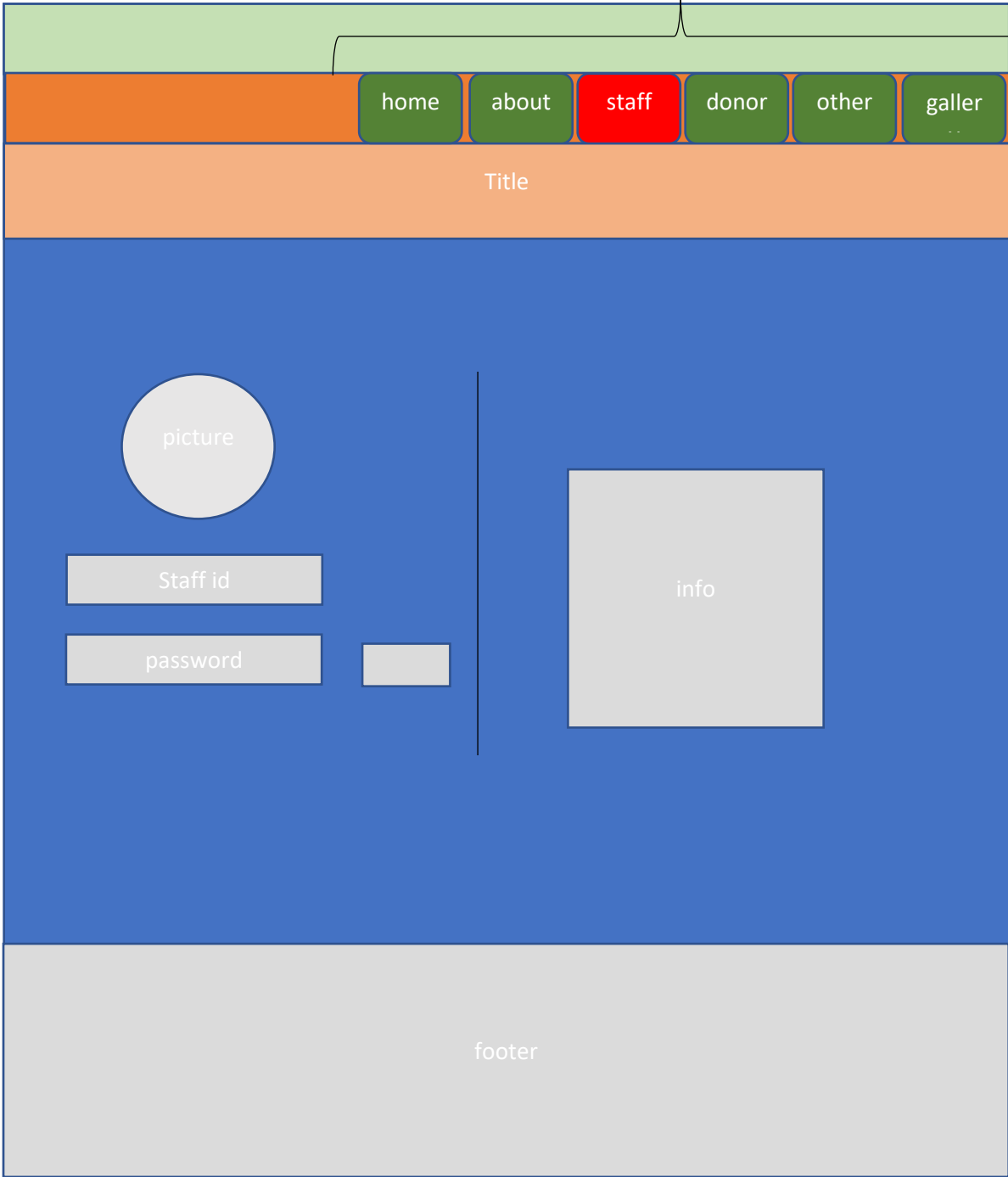
History

button

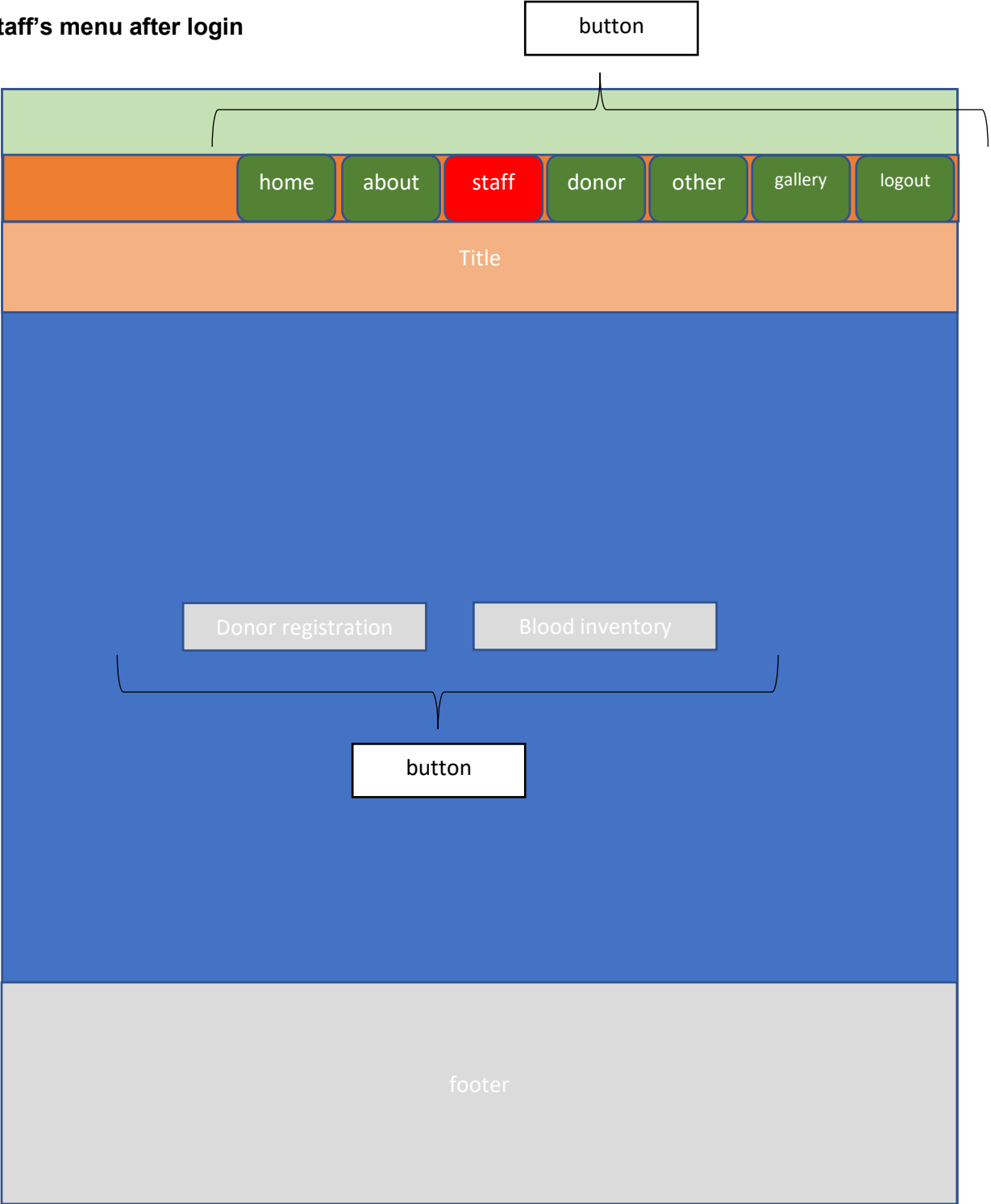


Staff Login

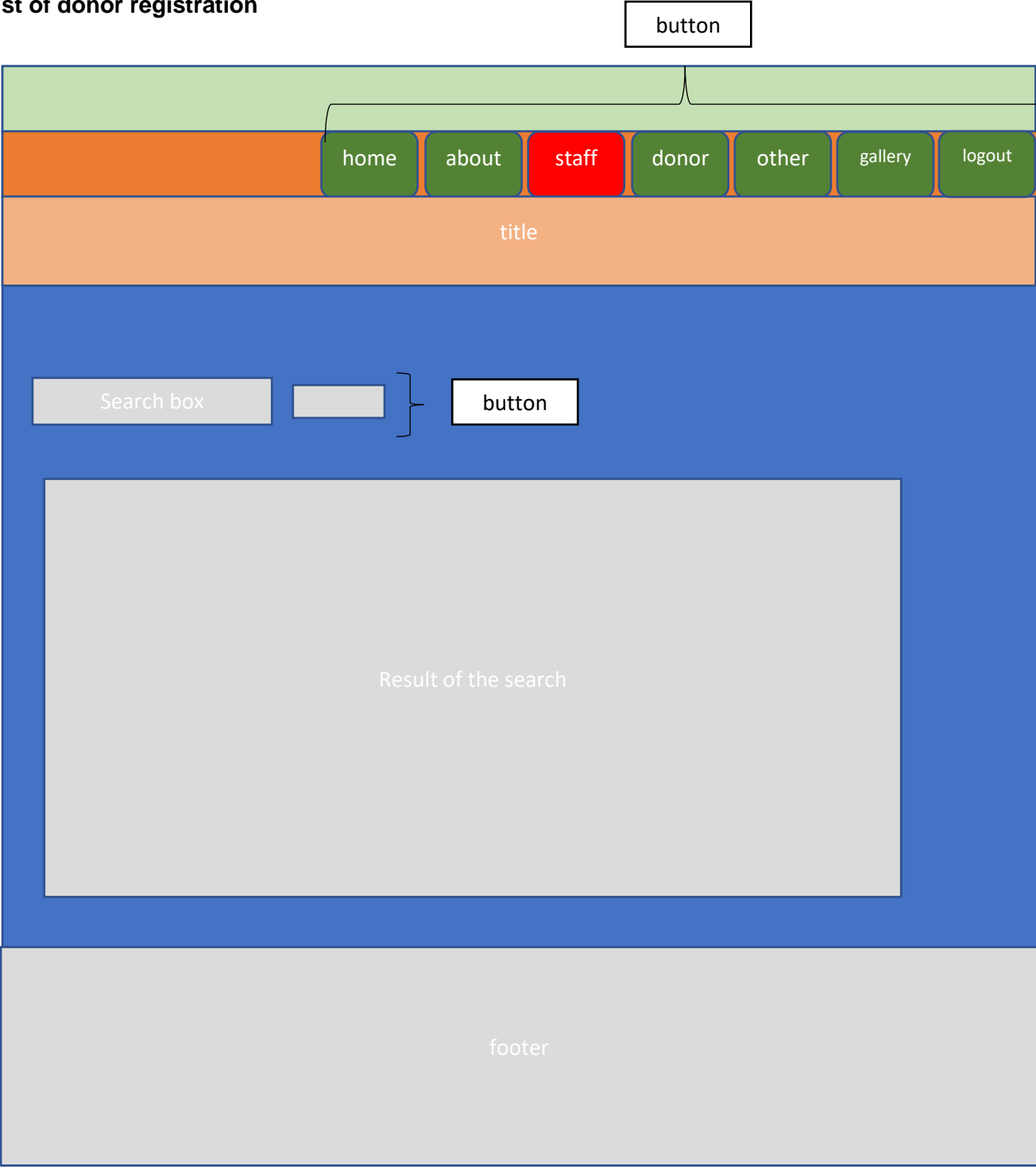
button



Staff's menu after login

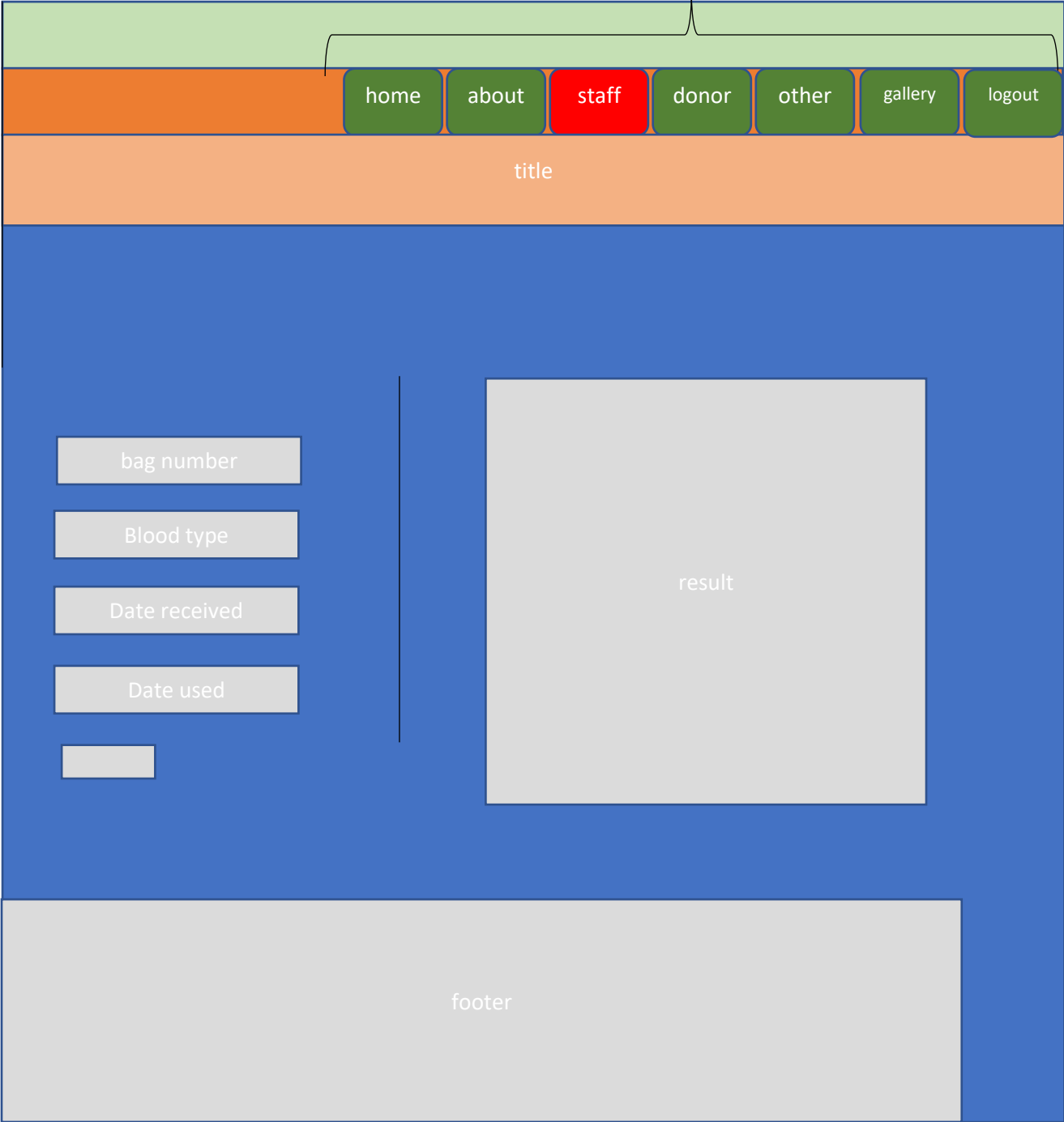


List of donor registration



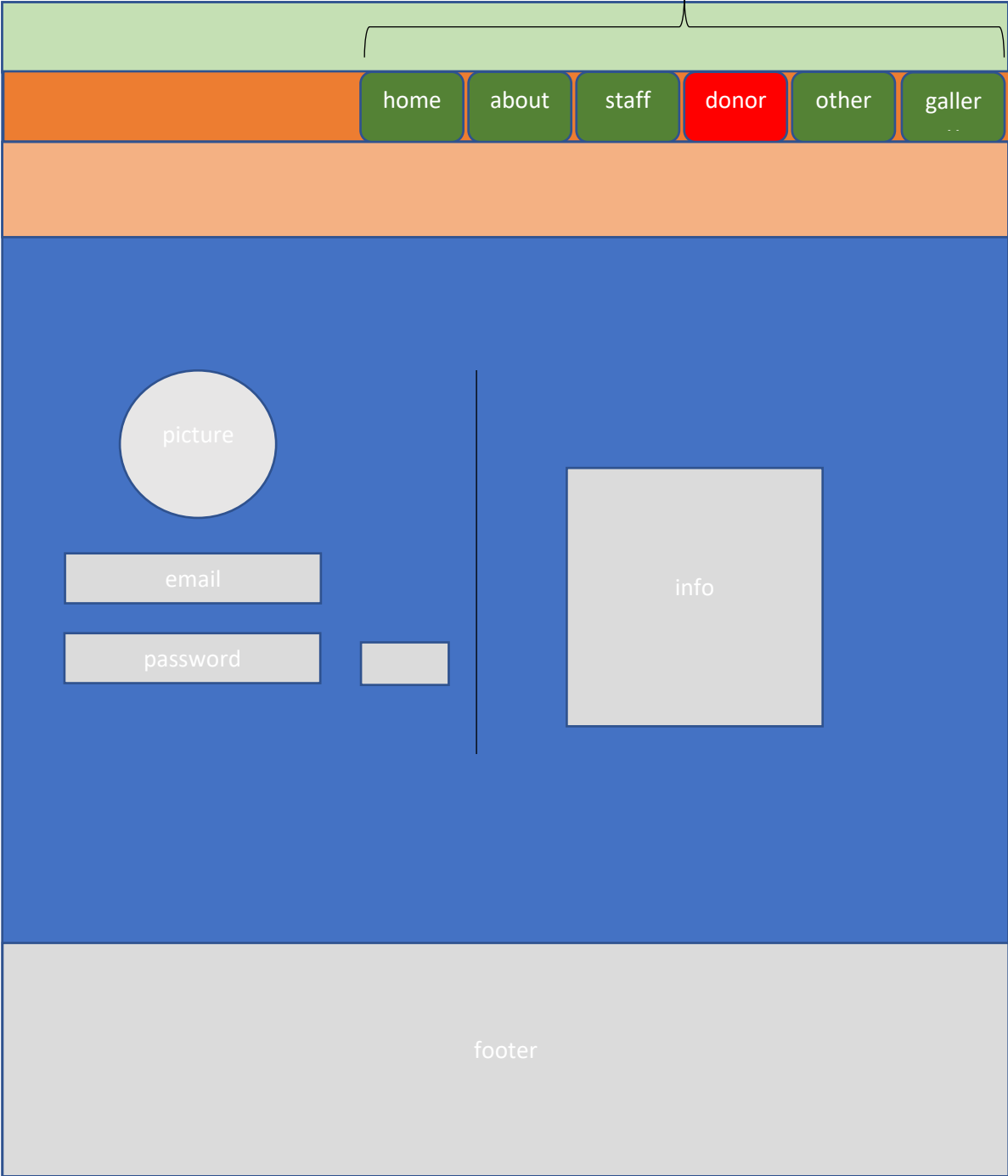
Blood inventory

button

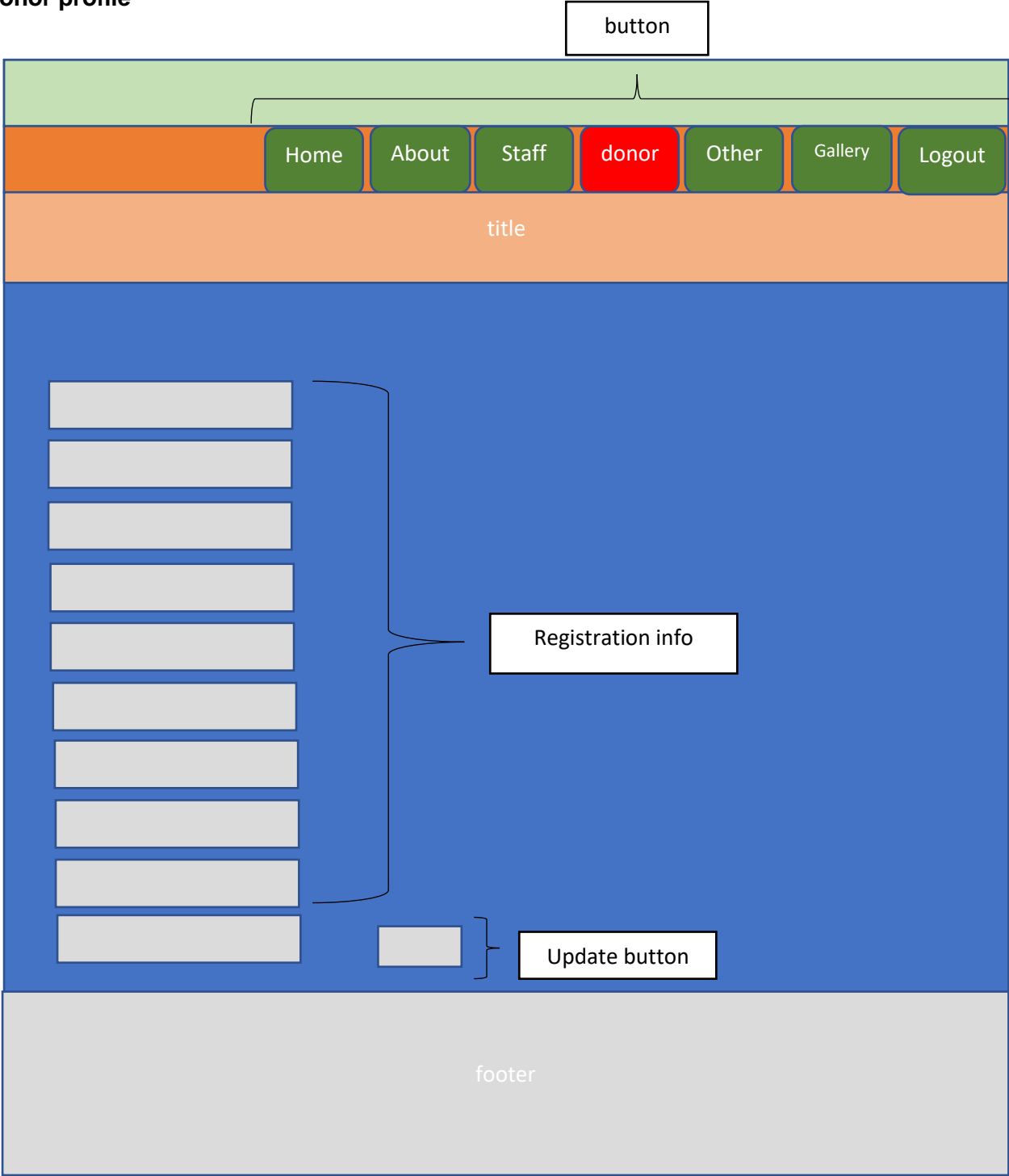


Donor Login

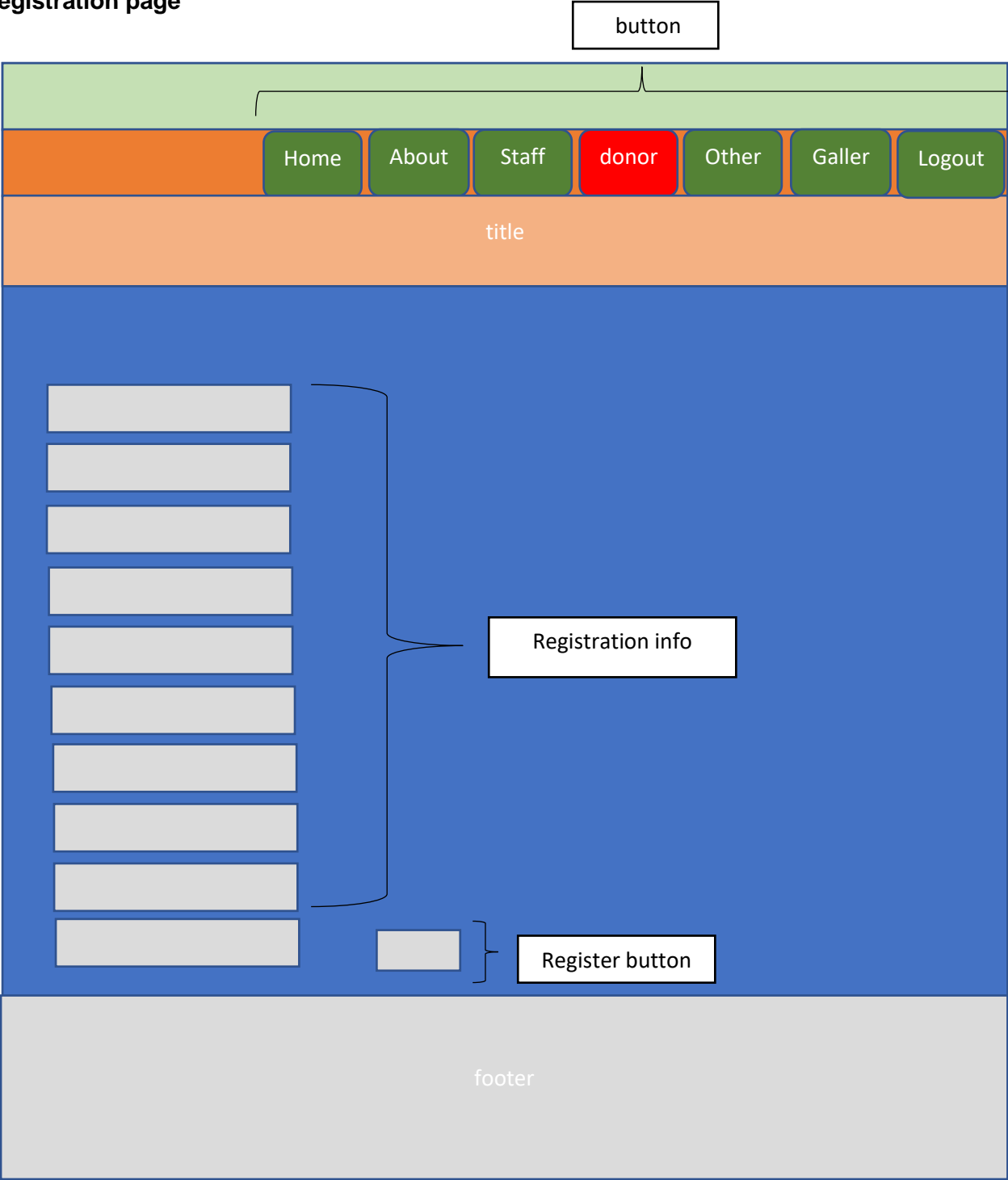
button



Donor profile

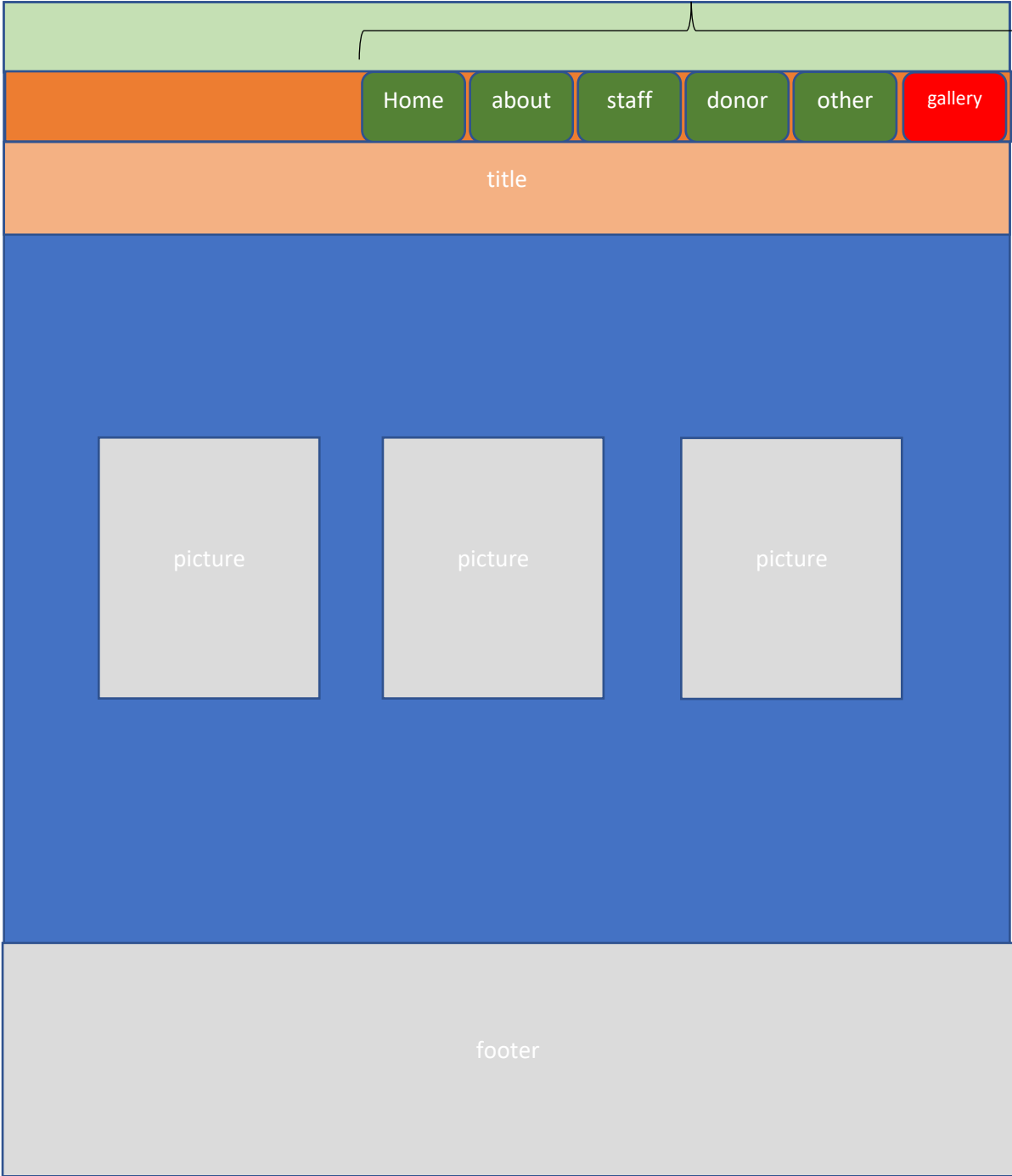


Registration page



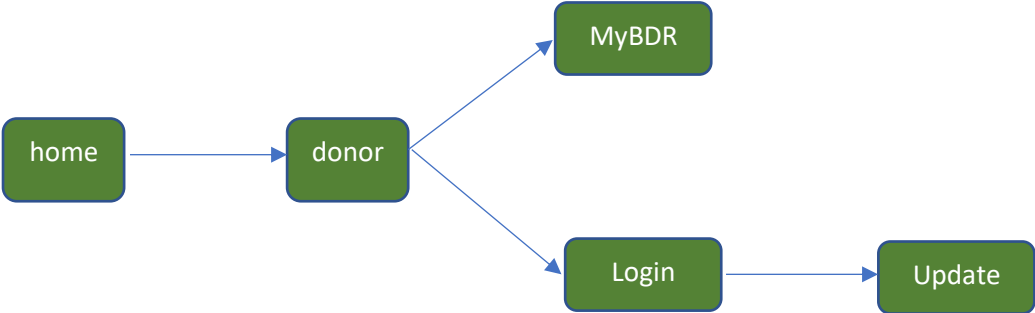
Gallery

button

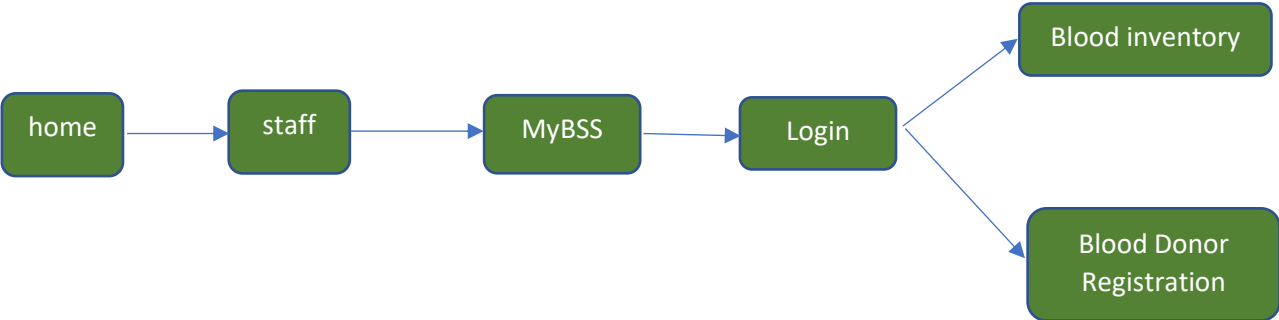


10.2 NAVIGATION

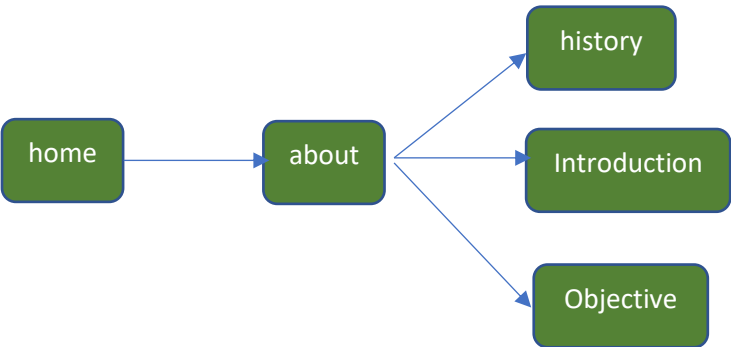
DONOR



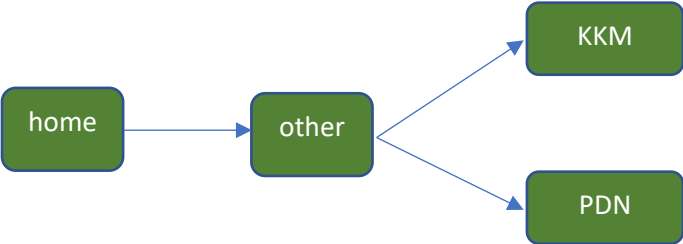
STAFF



ABOUT



OTHER

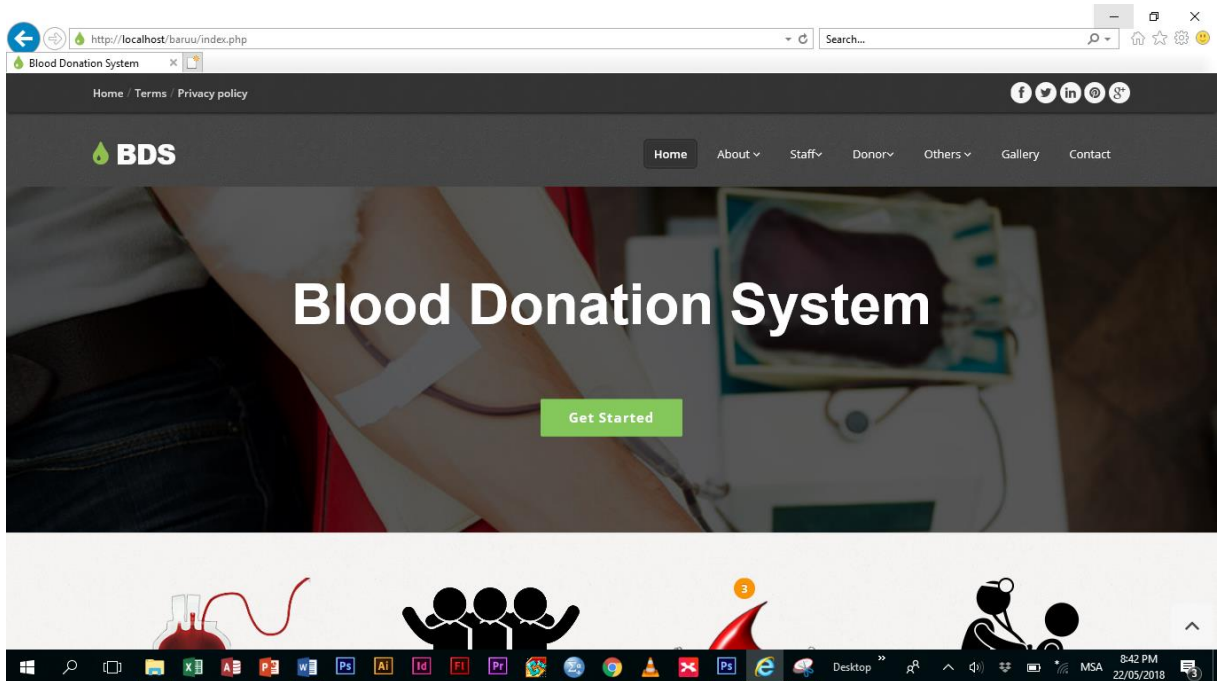


GALLERY

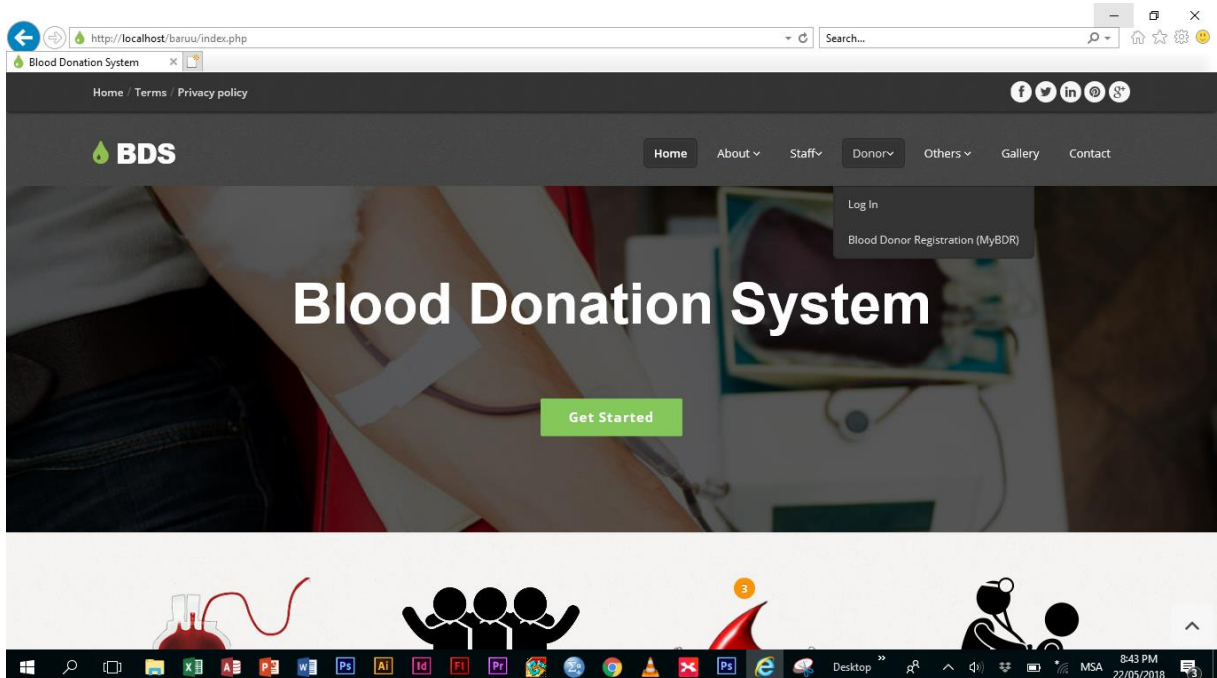


USER MANUAL

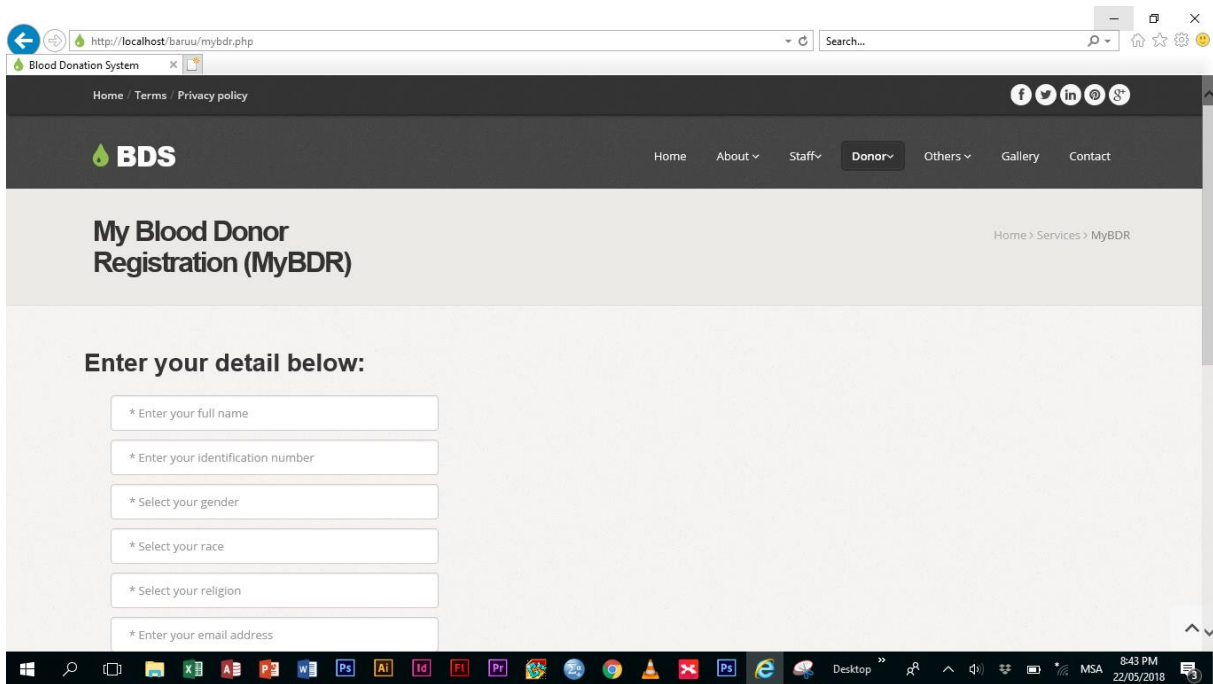
DONOR REGISTRATION



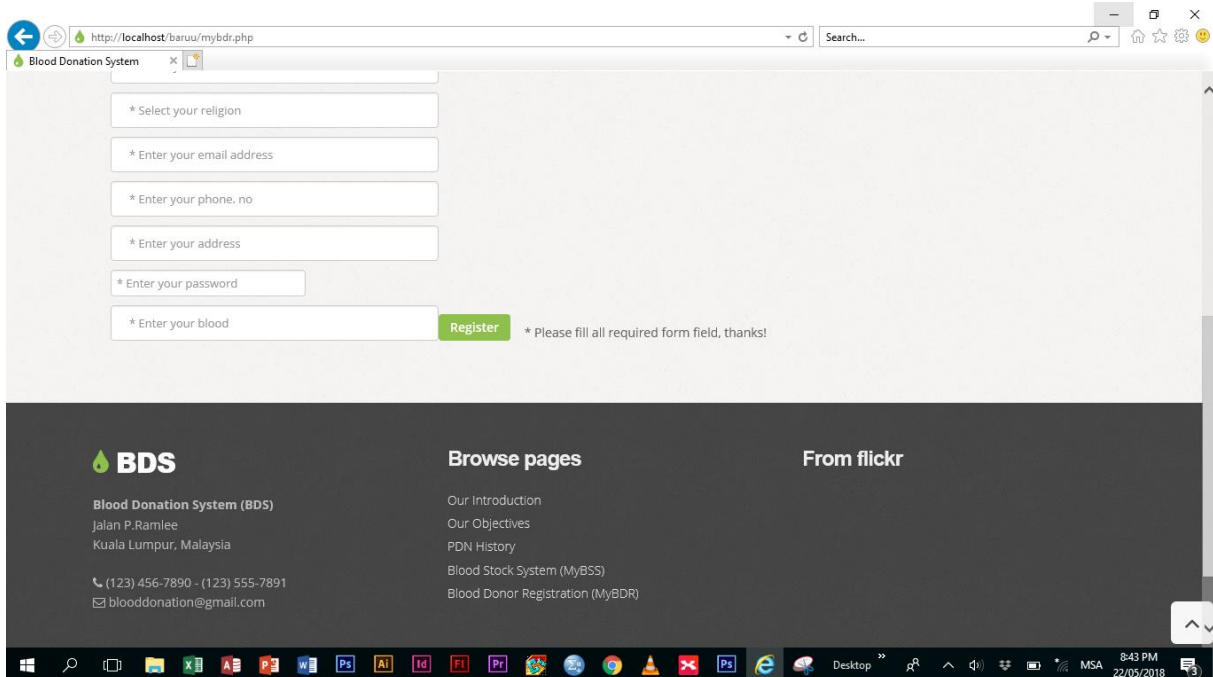
STEP 1: Go to the main page Blood Donation System



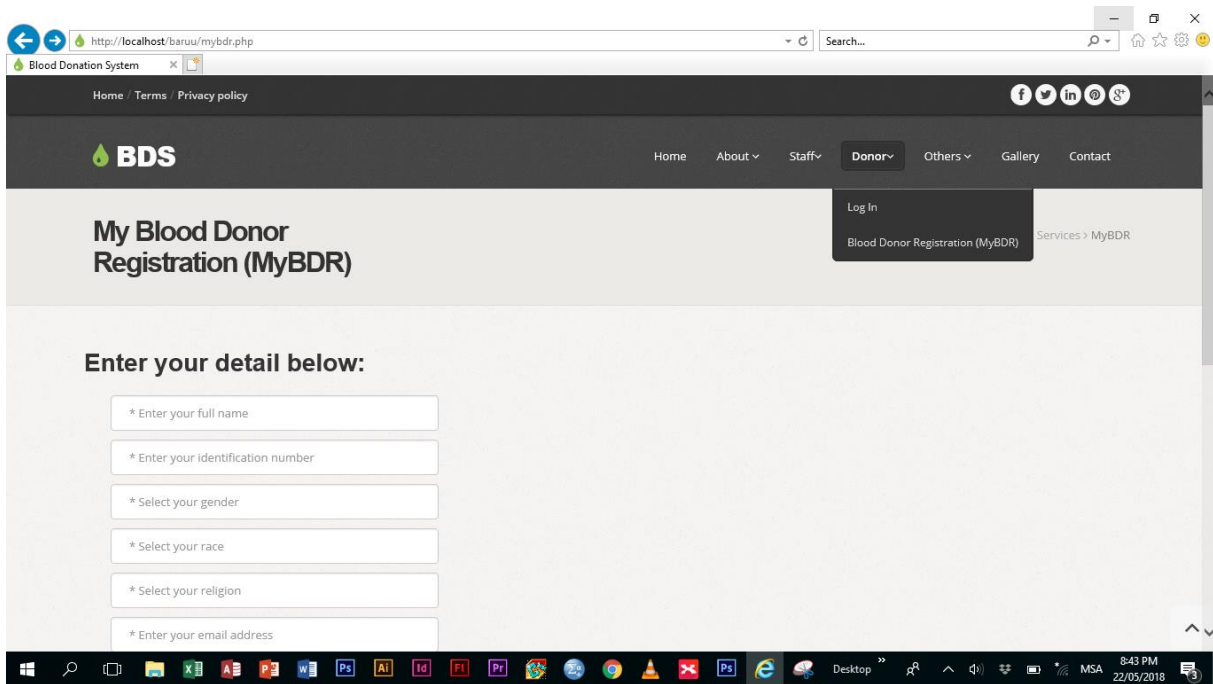
STEP 2: Go to the “Donor” button and choose “Blood Donor Registration” for register as a blood donor



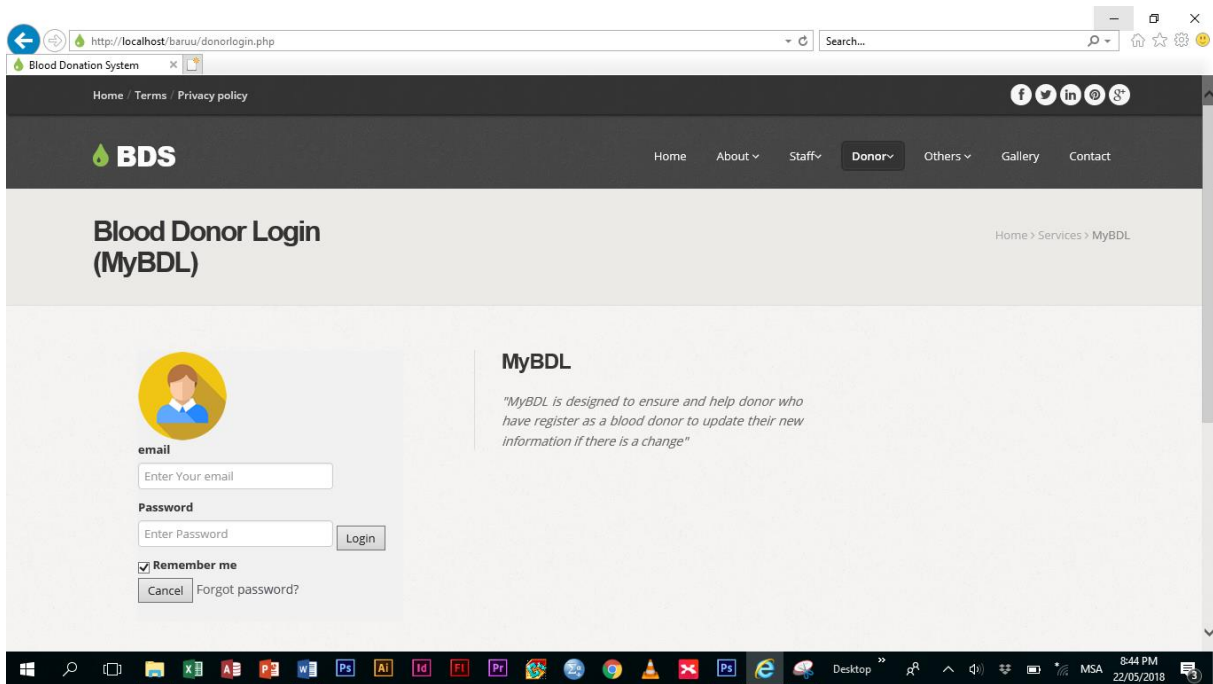
STEP 3: Fill in the form with your detail such as full name, identification number and etc.



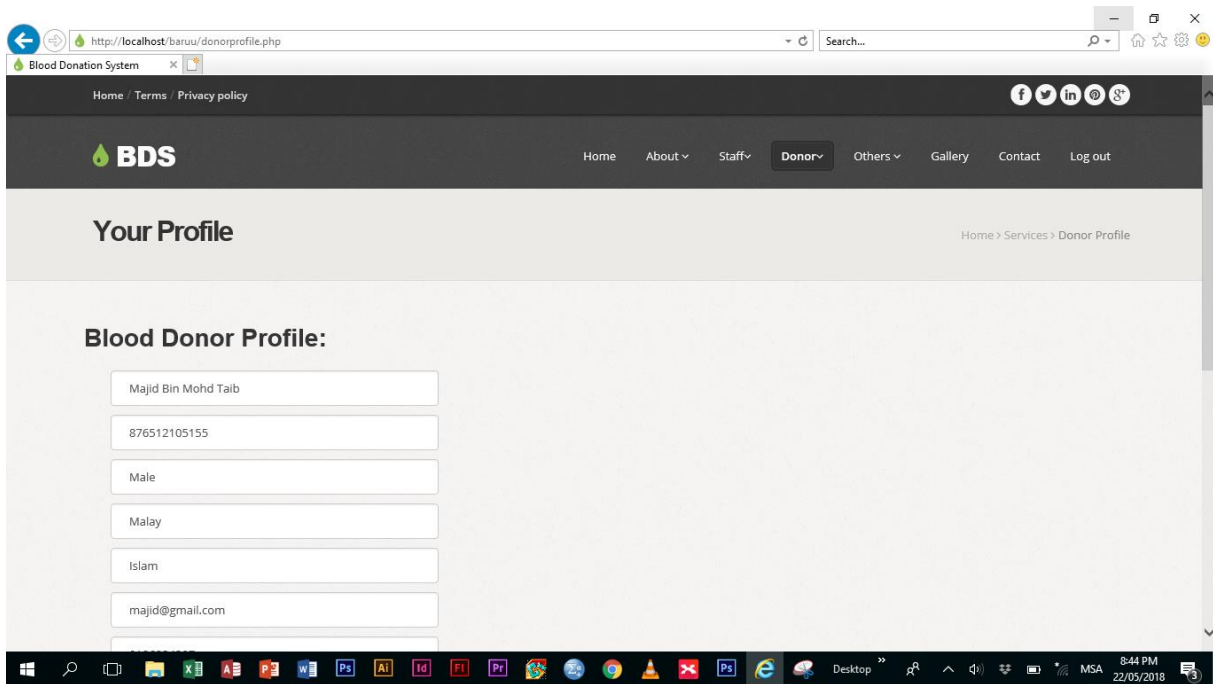
STEP 4: After finish all the requirement, click "Register" button to register as blood donor. Now your data has been saved.



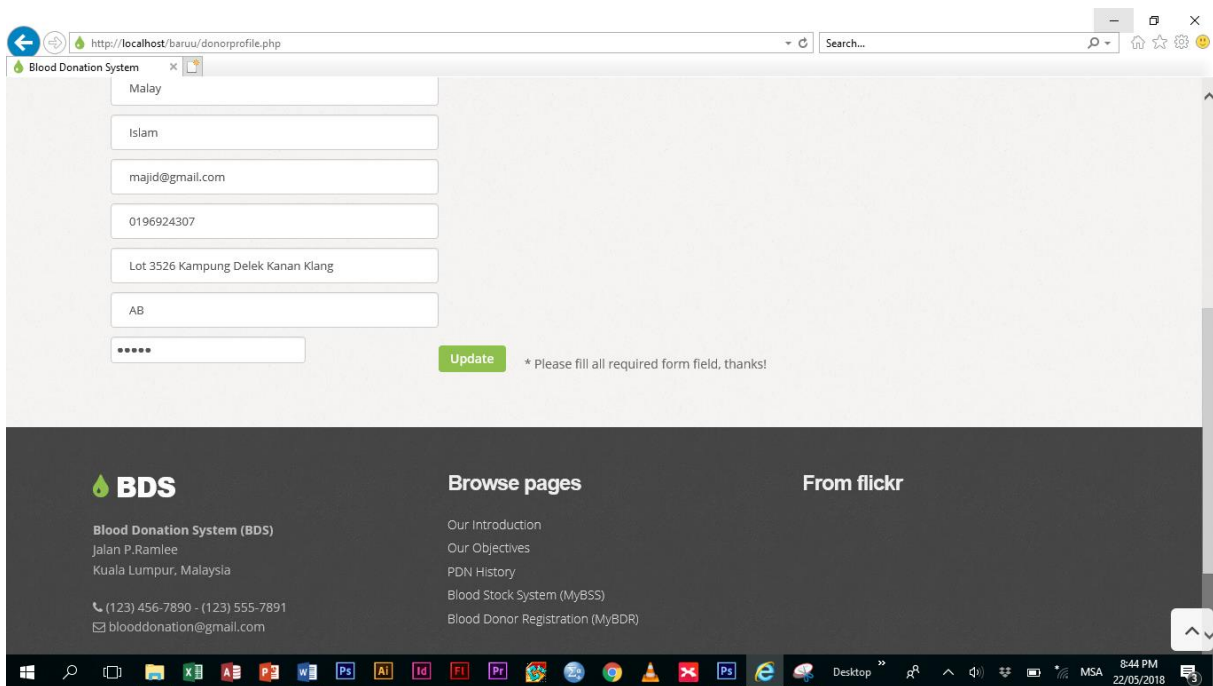
STEP 5: Go to the “Log in” menu under the “Donor” button and click “Log in”



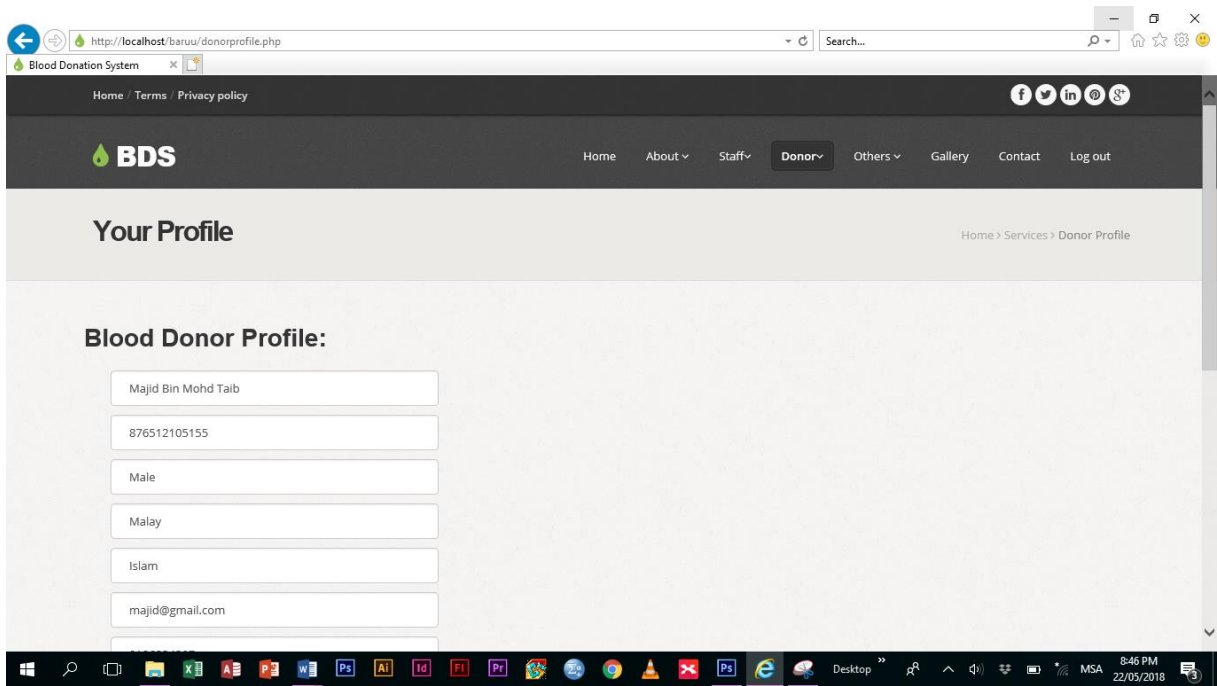
STEP 6: Enter your email and password to enter to your profile



STEP 7: Now you can see all your detail. You also can update your new information by enter the information

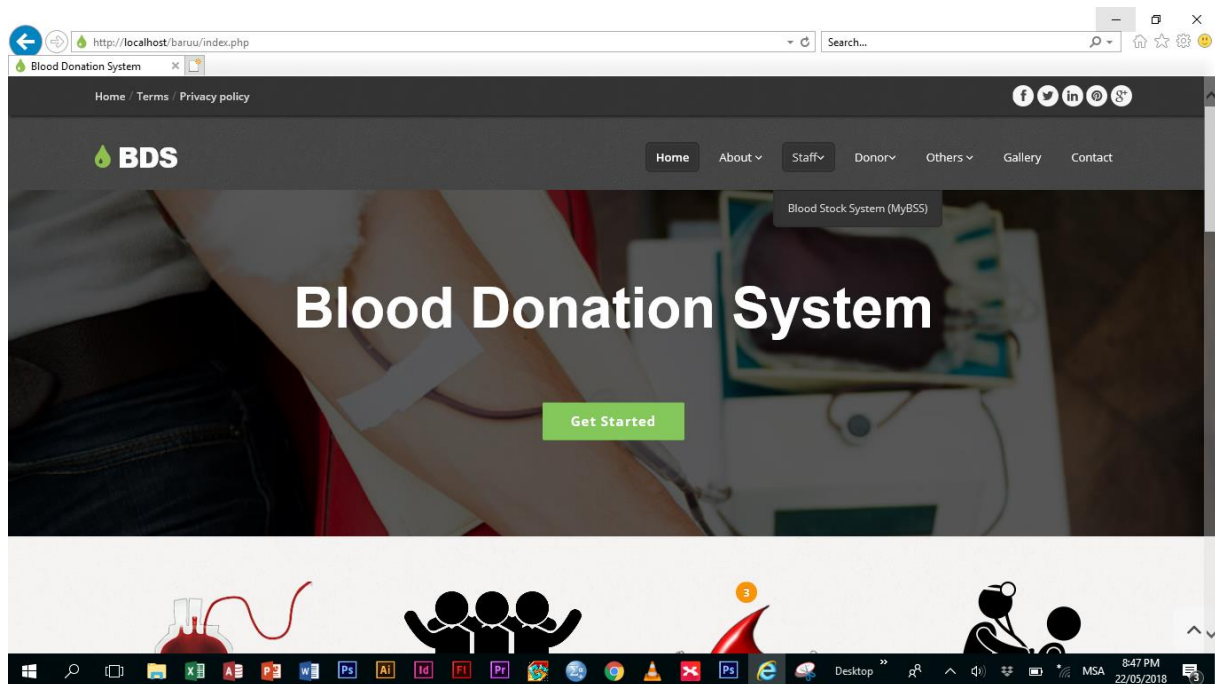


STEP 8: After you have edit your information, you need to click the “Update” button to change your information

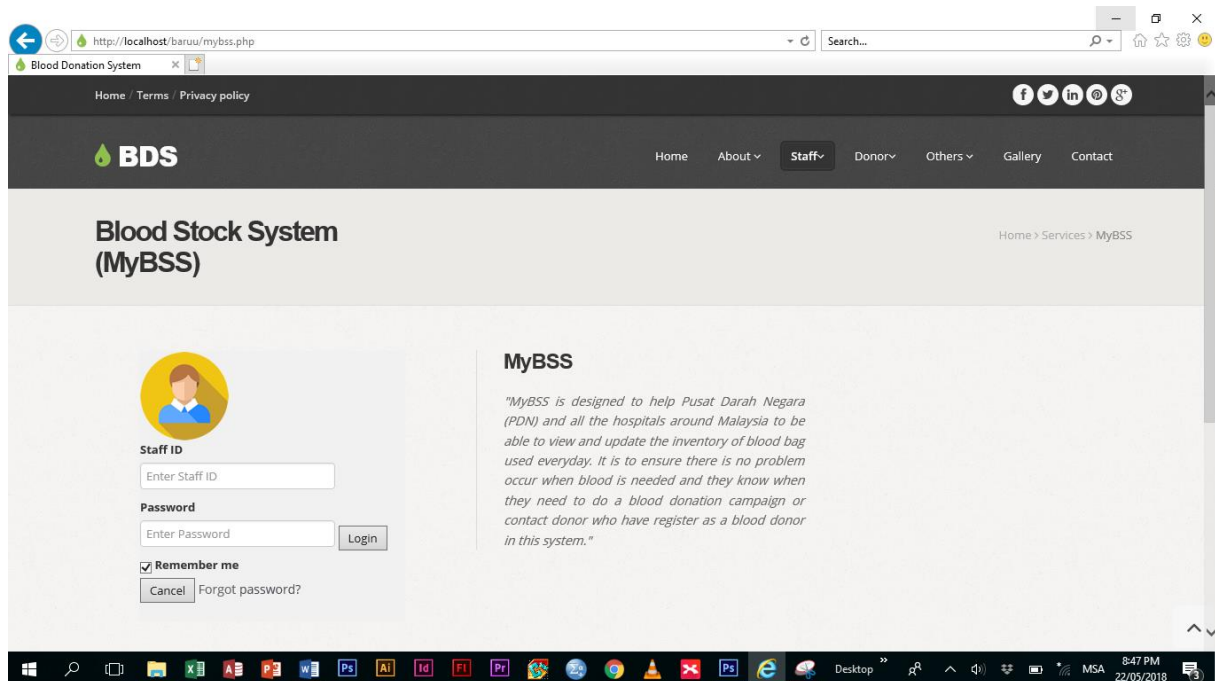


STEP 9: If you want to log out, you just need to click “Log out” button at the right side of the website

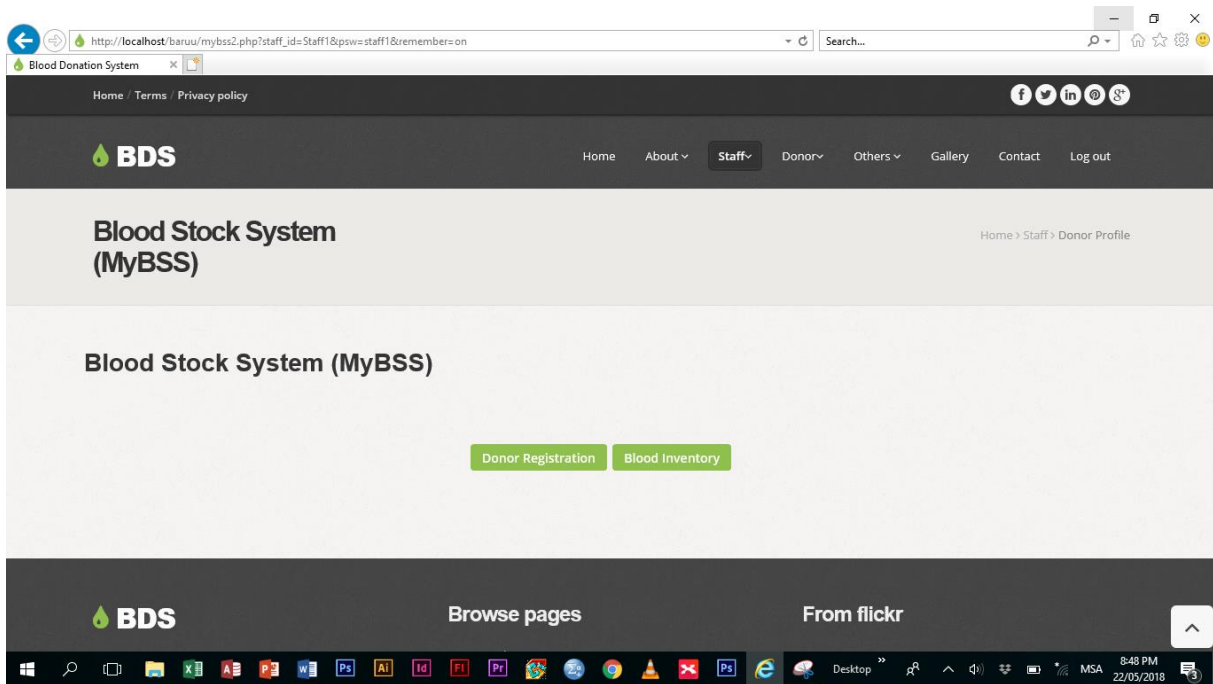
STAFF MANUAL FOR MyBSS (BLOOD STOCK SYSTEM)



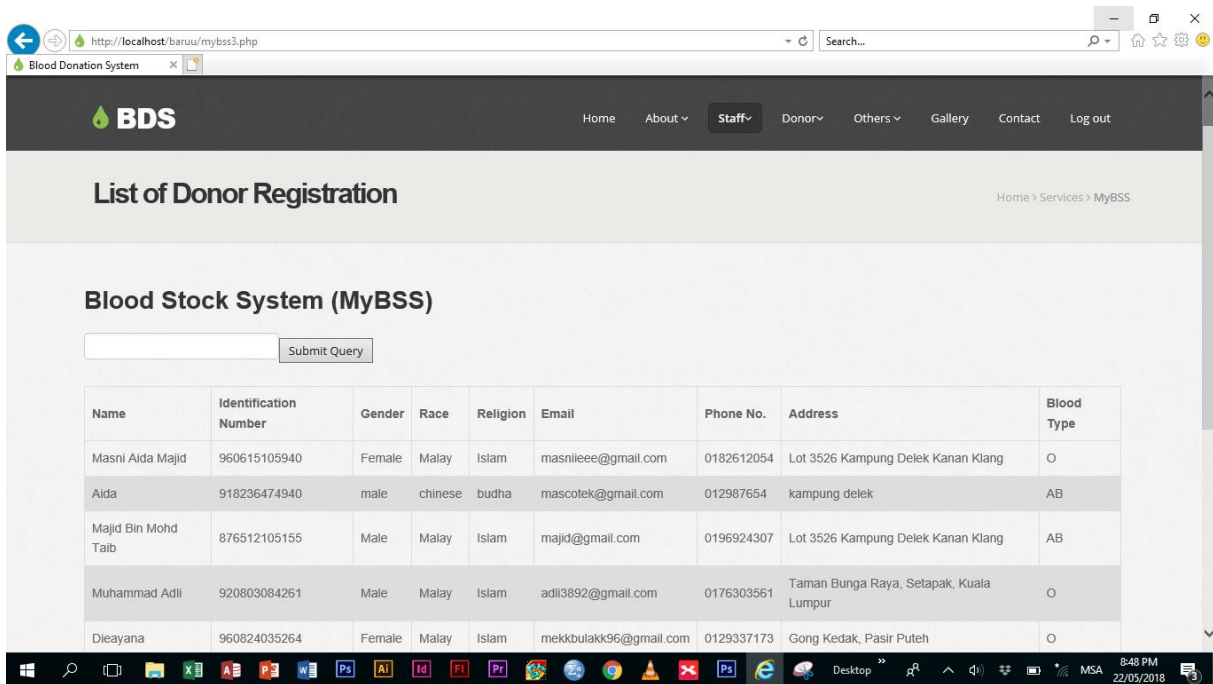
STEP 1: Go to the main page of the website and choose 'Blood Stock System (MyBSS)' menu under "Staff" button. Then click that.



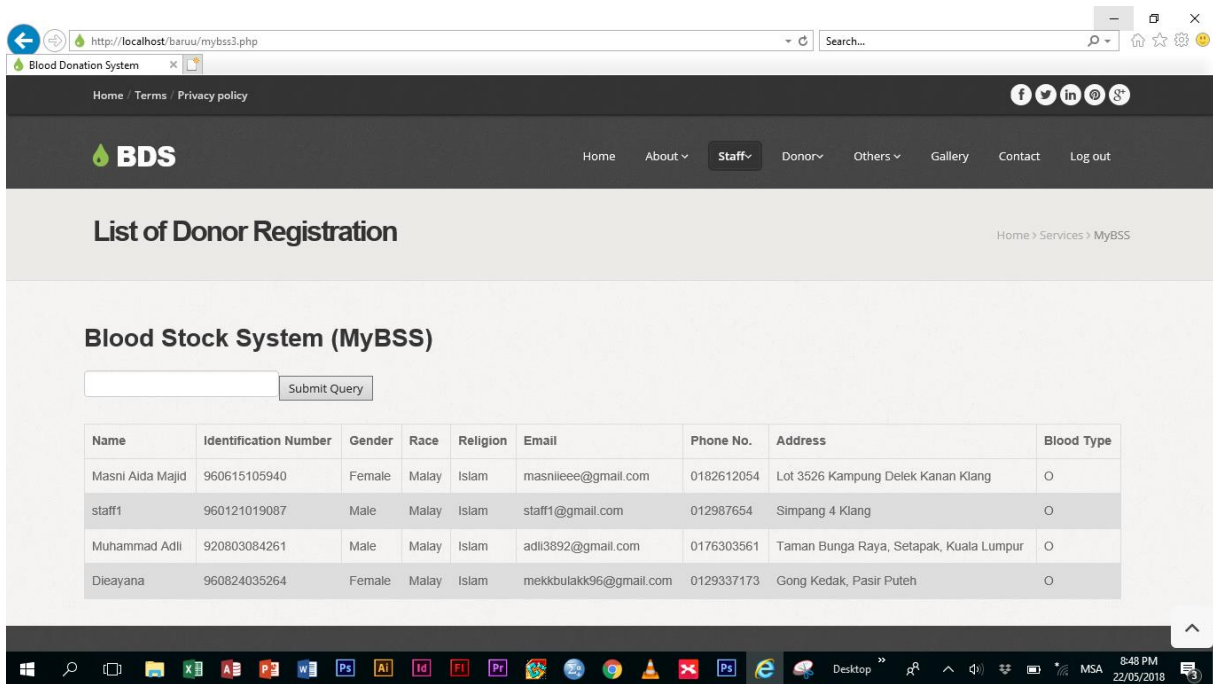
STEP 2: Next, enter your "Staff ID" and "Password" to enter for the next page.



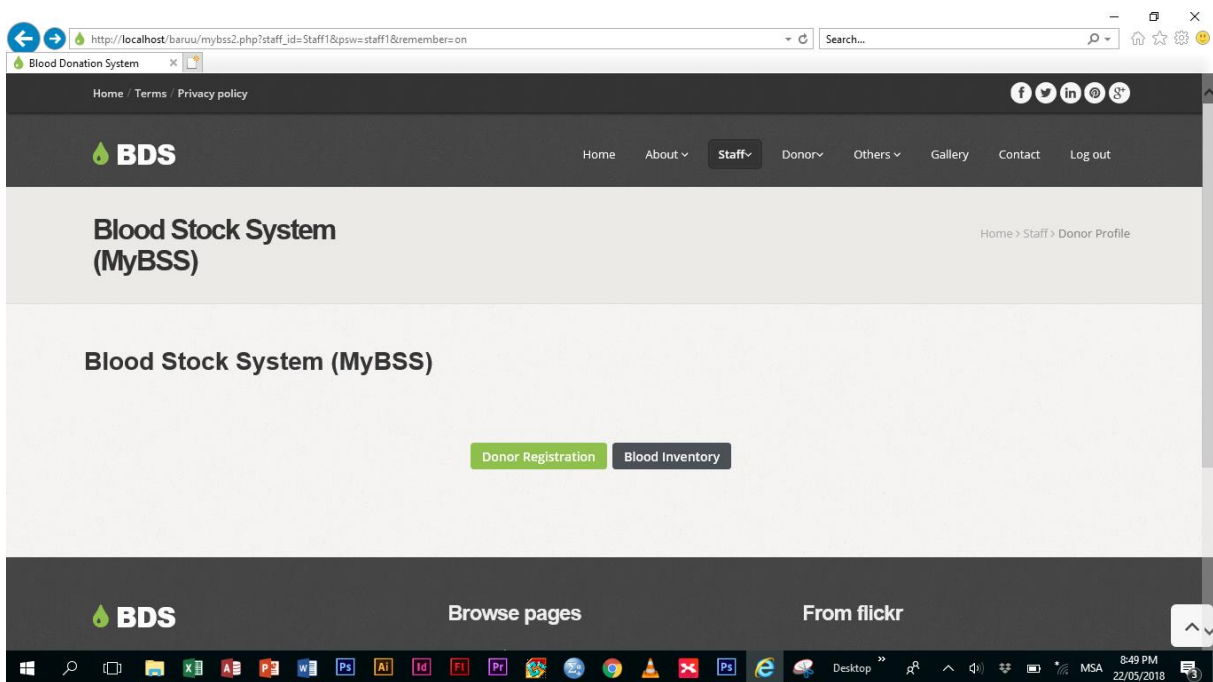
STEP 3: After you log in, you will see these two button which is “Donor Registration” and “Blood Inventory”. Then click “Donor Registration” to view the list all of the donor.



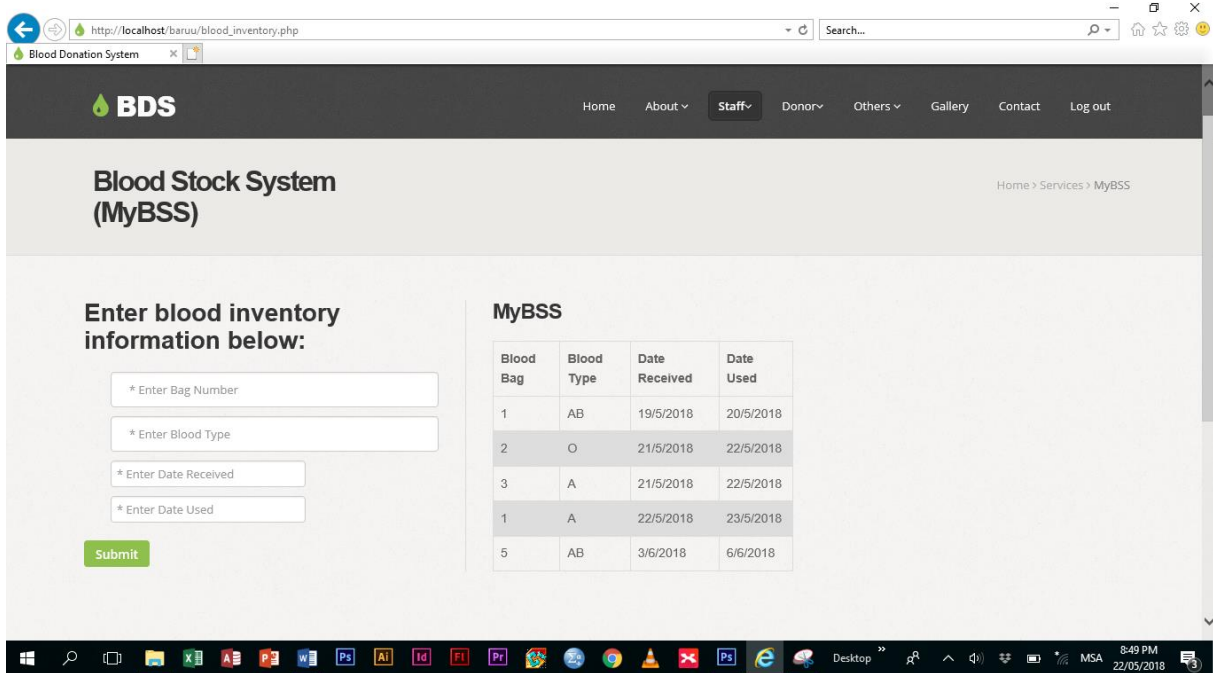
STEP 4: You will see this interface when you click “Blood Registration”. To differentiate the donor based on blood, enter the type of blood like A, AB or O in the search box above.



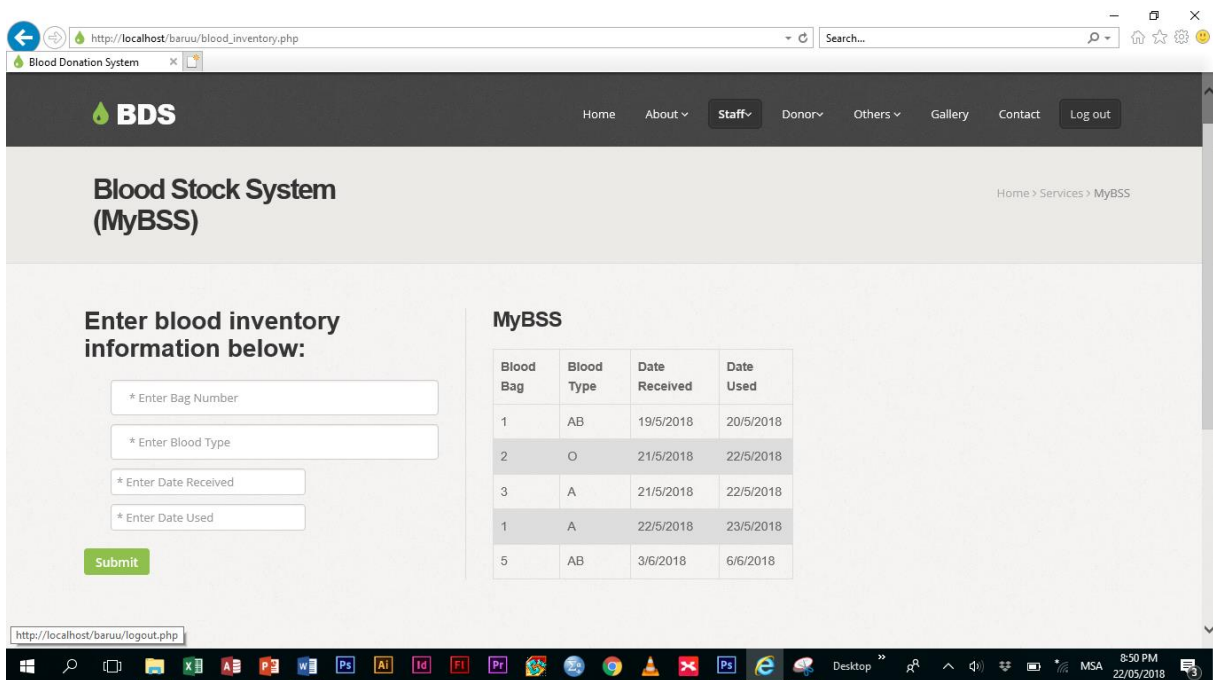
STEP 5: List of donors will appear based on the blood type you enter before in order for you to contact the donor by referring to their phone number.



STEP 8: Next, you can go to the previous page and click "Blood Inventory" button for the next function of this system.



STEP 9: You will see, blood inventory form on the left side and list of blood inventory on the right side. Enter all the information needed in the form and click "Submit" button. The information you submit will be appear at the list of blood inventory.



STEP 10: When you have done all the part, you can just click log out button at the right end side of the all button.

REFERENCES

(Mohd Rahimi Mohd Rosman, personal communication, March 29, 2018)