IN PARTNERSHIP WITH PLYMOUTH UNIVERSITY

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Module Code: PUSL2021	Module Name: Computing Group Project
Coursework Title: Project Proposal	
Deadline Date: 25/10/2023	Member of staff responsible for coursework: Mr. Pramudya Thilakaratne
Programme: BSc. Software Engineering	

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Group work: please list all names of all participants formally associated with this work and state whether the work was undertaken alone or as part of a team. Please note you may be required to identify individual responsibility for component parts.

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Signed on behalf of the group: 

Individual assignment: ***I confirm that I have read and understood the Plymouth University regulations relating to Assessment Offences and that I am aware of the possible penalties for any breach of these regulations. I confirm that this is my own independent work.***

Signed :

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Overall mark _____% Assessors Initials _____ Date_____

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Content

1. Project Overview

In Sri Lanka, the safety of blood transfusions is still a major public health concern. The public's confidence in its first-rate healthcare system is maintained by the availability of blood products for all blood types and the assurance of their safety the scarcity of their blood products and the sultanate's morbidity and mortality are still impacted by the supply of contaminated blood products.

Blood transfection safety is anticipated when the online blood bank management system is utilized to be improved or elevated. Risks associated with incorrect blood donor records and lost. It is possible to reduce or completely avoid records procedures involving the collection of blood bags. Systemized and organized inventory and storage will improve healthcare oversight.

Background of Study

A blood bank, also referred to as a blood collection center is a place where hospitals.

Blood bags that have been collected are kept and conserved for potential use in blood transfusion services. An operation known as a blood transfusion is performed on a patient who needs blood of blood products as a lifesaving intervention.

The majority of blood banks still conduct their operations manually. As a result, there is inefficiency because data collection regarding donors, blood bag inventories, and blood transfusion service is still done on paper because contaminated blood bags could be used, and patient's health could be at risk due to improper documentation.

When a donor's medical history is not fully documented and the shelf life of the blood bags is improperly managed contamination occurs. In order to address these concerns and ensure the safety of blood transfusions, a web–based blood bank management system may be required.

Problem Statement

Even with technological advancements, the majority of blood bank systems these days are operated manually. As a result, the availability of necessary blood types is a common issue. Does not have it, family members use social media to message people who can donate to the patient. This process can take longer than the patient's life to the most dangerous point.

Furthermore, it appears that the medical history and proper documentation of blood donors are lacking.
This could compromise the safety of blood transfusions and result in blood bag contamination.

The overall goal of this project is to ascertain how using a blood bank management system can improve the security of blood transfusions. Thus, the purpose of this project is to address the following particular issues.

- How do the various parties involved in the blood bank view the manual-based system?
- How do the parties involved in the blood bank view the online blood bank management system?

2. Project Objectives

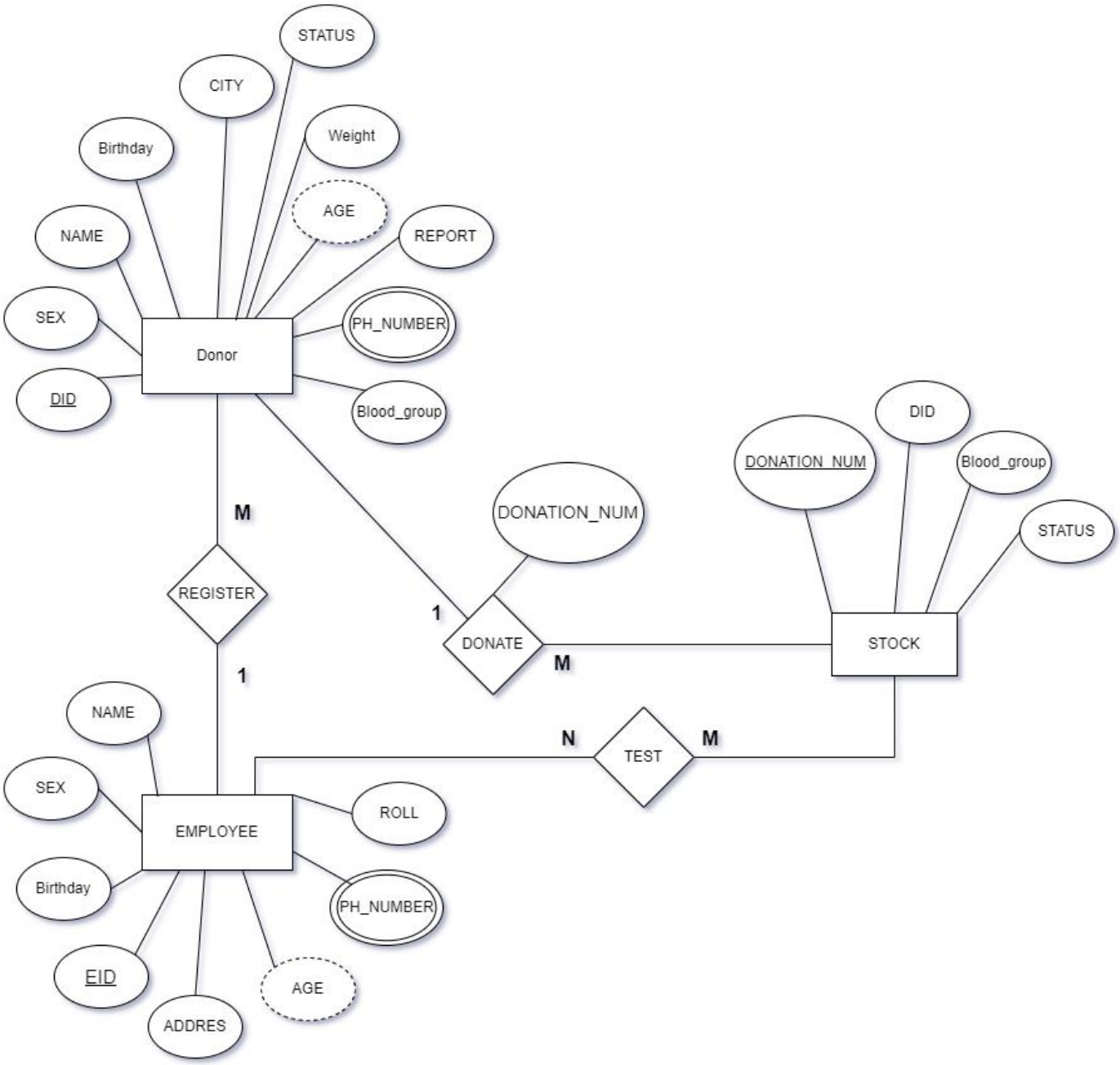
- Facilitating Donations – Encouraging individuals to donate blood by making it easy to find donation centers, schedule appointments, and receive reminders.
- Blood Supply Management – By keeping track of contributions demand and expiration dates, blood banks and hospitals can more effectively manage their blood inventory.
- Donor Engagement – Keeping donors informed about nearby blood drives or emergencies and rewarding them for their support.
- Health Screening – Using a pre-screening procedure, donors are confirmed to meet health requirements.
- Information Dissemination – Educating people on the value of blood donation the requirements and aftercare.
- Emergency notification – Using notifications to mobile donors during blood shortages or natural disasters.
- User-friendly interface – Making an intuitive and user–friendly app interface for blood banks and donors.
- Data Security – Making sure donor's data is safe and complies with privacy laws.

- Reporting and Analytics – Providing data and analytics for planning and performance assessment.
- Collaboration – Encouraging cooperation with hospitals blood banks and other healthcare partners.

3. Target Users

- Donors
- Admin
- Blood Bank System

ER Diagram


STATUS
CITY
Weight
Birthday
AGE
NAME
REPORT
SEX
PH_NUMBER
Donor
DID
Blood_group
DONATION_NUM
DID
DONATION_NUM
Blood_group
STATUS
M
REGISTER
1
DONATE
M
STOCK
1
NAME
N
TEST
M
SEX
EMPLOYEE
ROLL
Birthday
PH_NUMBER
EID
AGE
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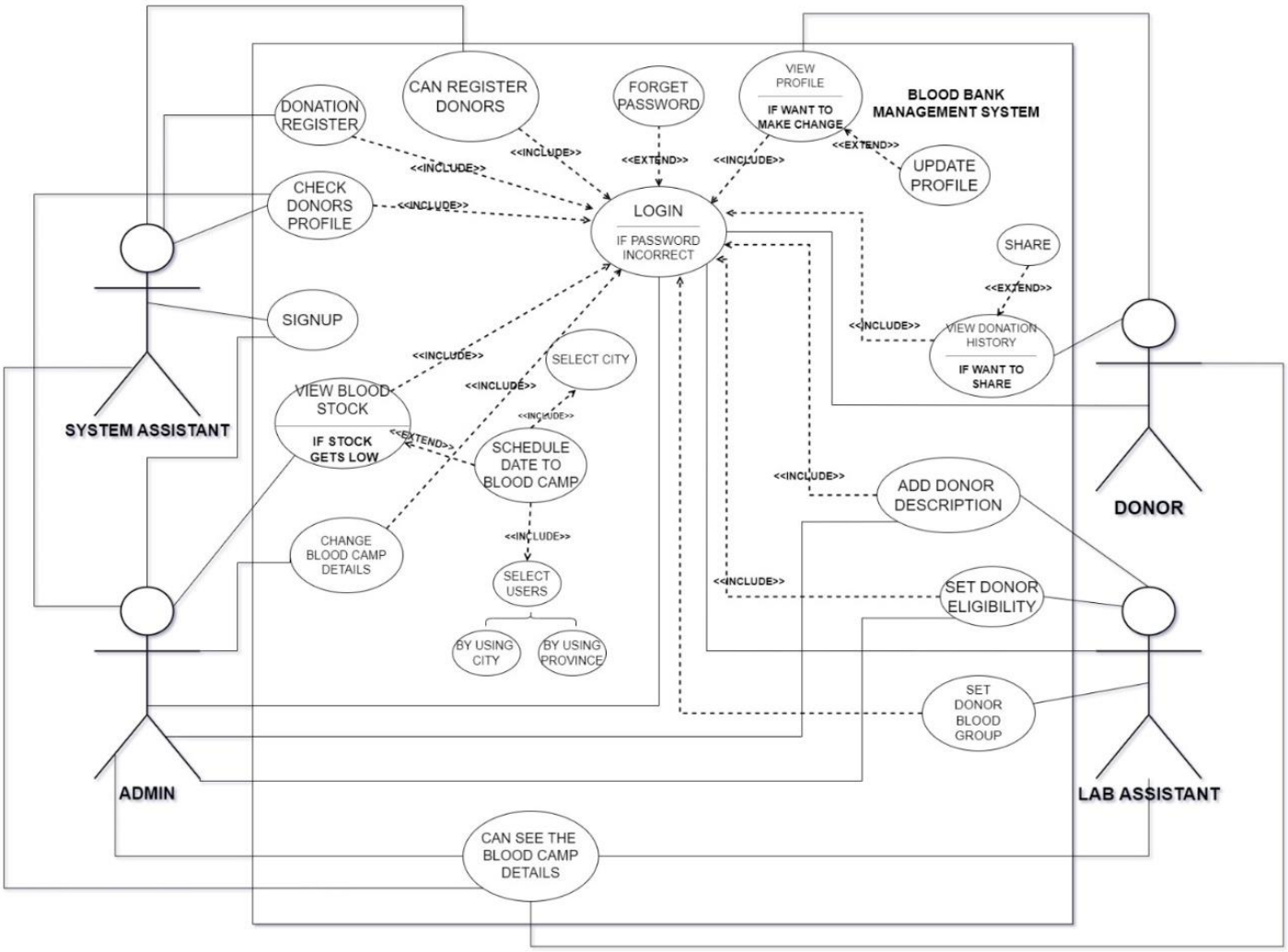
Use case


BLOOD BANK MANAGEMENT SYSTEM
DONATION REGISTER
CAN REGISTER DONORS
FORGET PASSWORD
VIEW PROFILE
IF WANT TO MAKE CHANGE
UPDATE PROFILE
CHECK DONORS PROFILE
LOGIN
IF PASSWORD INCORRECT
SHARE
SIGNUP
VIEW DONATION HISTORY
IF WANT TO SHARE
SELECT CITY
VIEW BLOOD STOCK
IF STOCK GETS LOW
SCHEDULE DATE TO BLOOD CAMP
ADD DONOR DESCRIPTION
CHANGE BLOOD CAMP DETAILS
SELECT USERS
SET DONOR ELIGIBILITY
BY USING CITY
BY USING PROVINCE
SET DONOR BLOOD GROUP
CAN SEE THE BLOOD CAMP DETAILS
SYSTEM ASSISTANT
DONOR
ADMIN
LAB ASSISTANT
<<INCLUDE>>
<<EXTEND>>

4. Application Features and Description

- User registration: - Users registers by the admin account or the employee account giving personal details such as name, location, blood type, and contact information.
- Pairing Blood Types:- Using blood type matching, the app pairs potential donors with recipients. It makes sure that when blood is needed, the appropriate kind is available.
- Requests for Donations:- Blood donation requests, along with the necessary blood type and urgency of the need, can be posted by individuals or medical facilities. These requests are viewable and respondable by users.
- Scheduling of Donations: - Local blood banks and clinics allow donors to make appointments for blood donations. Donors receive reminders from the app to make sure they show up for their appointments.
- Services Based on Location: - Donors can look up local hospitals, blood donation clinics, or mobile blood drives. The application offers guidance to the selected location.
- Donor Profiles: - Overview: This feature allows donors to easily keep track of their community service by allowing them to update their profiles with details about previous donations.
- Donation History: - Overview: The application keeps track of Blood Donation Reminders: - By setting up recurring reminders, users can help guarantee a consistent supply of blood for those in need.
- Health Screening and Eligibility: - To make sure potential donors are fit to donate, the app can perform basic health screenings and provide information about the requirements for eligibility for blood donations.

- Messaging and Notifications: - Through in-app messaging and push notifications, the app enables donors and recipients to stay in touch and informed about the progress of donation requests and appointments.
- Social Sharing: - Overview: People can use social media platforms to share their donation stories with others, inspiring them to give as well as raising awareness and participation.
- every user's donations, showing the quantity, dates, and locations of each donation.
- Emergency Contacts: - Overview: By allowing users to save emergency contacts within the app, family members or friends can be contacted in the event of an unforeseen medical emergency during or following the donation.
- Privacy and Security: - Data security and user privacy, particularly with regard to personal and health-related information, should be given the most importance by the app.

5. Time Frame / Gantt Chart

Name	Begin date	End date
Planning	13/09/2023	16/10/2023
Project Identification	13/09/2023	27/09/2023
Submite Ideas	27/09/2023	27/09/2023
Get The Approve	27/09/2023	16/10/2023
Analyse	15/09/2023	25/10/2023
Analyse The Information	15/09/2023	28/09/2023
Identify The Resources	29/09/2023	03/10/2023
Create The Proposal	17/10/2023	23/10/2023
Submite the Proposal	24/10/2023	25/10/2023
Design	26/10/2023	08/11/2023
Design Appopriate Diagrams	26/10/2023	01/11/2023
Design Wireframe	26/10/2023	27/10/2023
UI Design	26/10/2023	08/11/2023
Design Database	30/10/2023	06/11/2023
Implementation	09/11/2023	01/03/2024
Front End	09/11/2023	07/02/2024
Back End	13/11/2023	01/03/2024
Database Development	15/11/2023	06/02/2024
System	01/03/2024	01/04/2024
Testing	01/03/2024	14/03/2024
Bugs Fixed	19/03/2024	01/04/2024