

SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: [B Blood]

Submitted by: [Tshewang Dendup]

1. Introduction

a. Purpose

This SRS document done for the development of B Blood application will give detailed description and requirements to develop the app that will act as an interface between the blood seeker and blood donor through online. This document explains functional and non-functional requirements, interaction with external applications. In brief, the document is to provide all the necessary information that can be used to develop an application.

b. Scope

The scope of this project targets the citizens residing inside the Bhutan as it is more easy and reliable to collect blood form the people who are authorized and true people of Bhutan.

The project focuses within the boundary of Bhutan due to the fact that it will be faster and efficient to collect the Blood from the donor who lives inside the country. Moreover, the hospital and BHU of Bhutan are the prime focus that the app targets to provide services.

2. Requirements

a. Functional Requirements.

User Registration: In order to use the features of B Blood application both the Donor and Seeker should register to app with fulling the given form. Once they became the user of this application they can View the blood request post.

Post the blood request: Once they are registered Seeker can post the blood request on the page if donor accept the request the notification is send to the Seeker after that seeker can Contact with the Donor through phone call.

Search: Both Donor or Seeker will able to Search the member based on blood group and they can able to know the Donor or Seeker details based on their search.

Update: This app provides to update their information if their post or registration is mistaken whereby they can change their location.

Views: The member can view others details and both donor or seeker can view the blood request details in their page.

Logout: If the user doesn't want to use the app they can logout the application by pressing the logout option.

b. Non-functional requirements

- Reliability

This B Blood application will provide easy platform to search the blood donors and their blood group, contact with the donors when we need in blood.

- Usability

This application will be build using graphical interface with clear text and information making it user friendly where user will be able to use interface within short amount of time.

- Performance

In this app both the blood donors and seekers can register and use the app whereby they have to just select the option as donors or seekers. The blood seekers can post the blood request to the donors or they can contact directly with the donors through phone call. It acts as the interface between the blood donors and blood seekers and it is more over user-friendly.

- Supportability

The app can be installed and run on any android smartphone and size of android smartphones will not affect the performance of the application.

c. Software Requirements

The technology and version used:

1. java version: Java SE jdk 8 and above
2. Android studio version 4 and above.
3. Operating System: Window and Ubuntu.
4. Android SDK-25 and above

5. Firebase: Firebase is a Backend-as-a-Service (Baas). It provides developers with a variety of tools and services to help them develop quality apps, grow their user base and earn profit. It is built on Google's infrastructure. Firebase is categorized as a No-SQL database program, which stores data in JSON-like documents. We decided to use Firebase for managing our database because we don't need to manage server and API and data-store, all written so generally that you can modify it to suit most needs. Moreover we are going to use Firebase because it has built in security at the data node level and it is real time data, it is easy for email and password,google,Facebook and GitHub authentication.

3. Hardware requirements

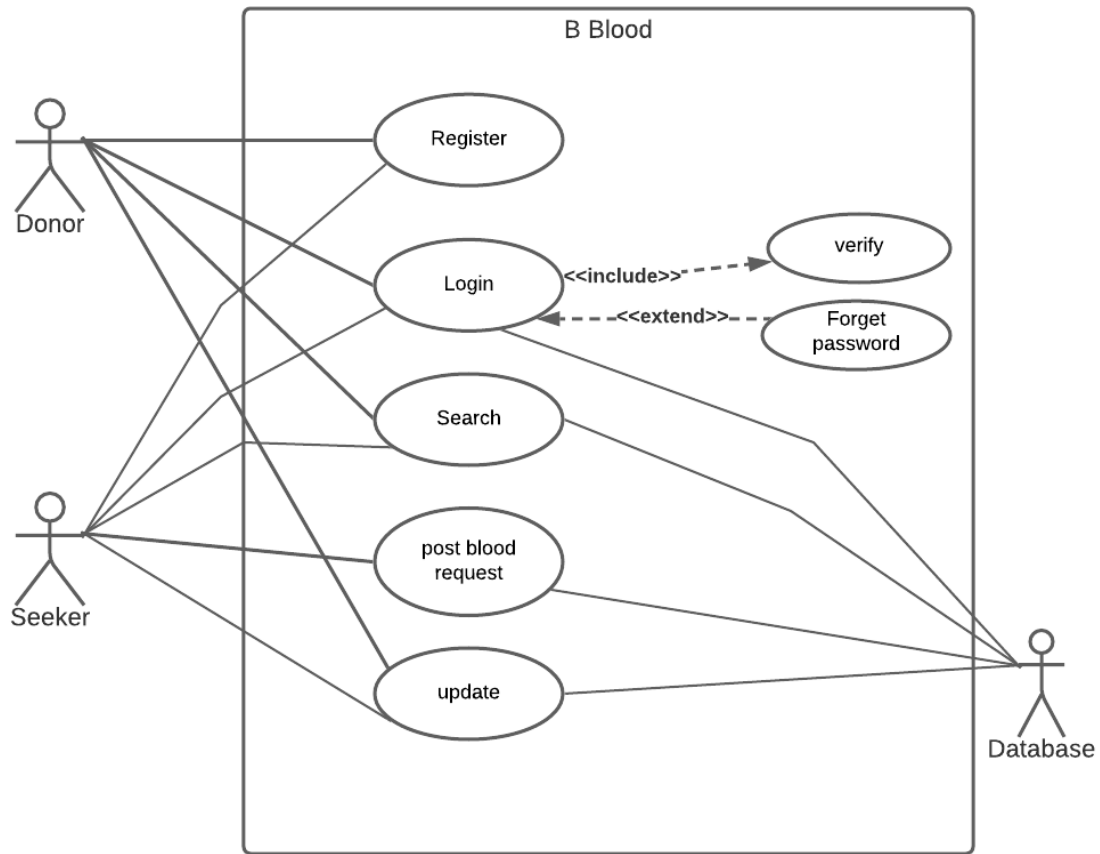
for developer

1. RAM 8GB
2. 2.00GHz*4 processors.
3. Disk capacity :1.0TB

4. System designs

- a. ERD(Entity Relationship Diagram)
- b. Relational Schema
- c. Sequence Diagram
- d. Use case Diagram

Use Case Diagram



Use Case	Register/login
Primary Actors	Donor and Seeker
Goal Context	In order to access to the application both Actors should register first.

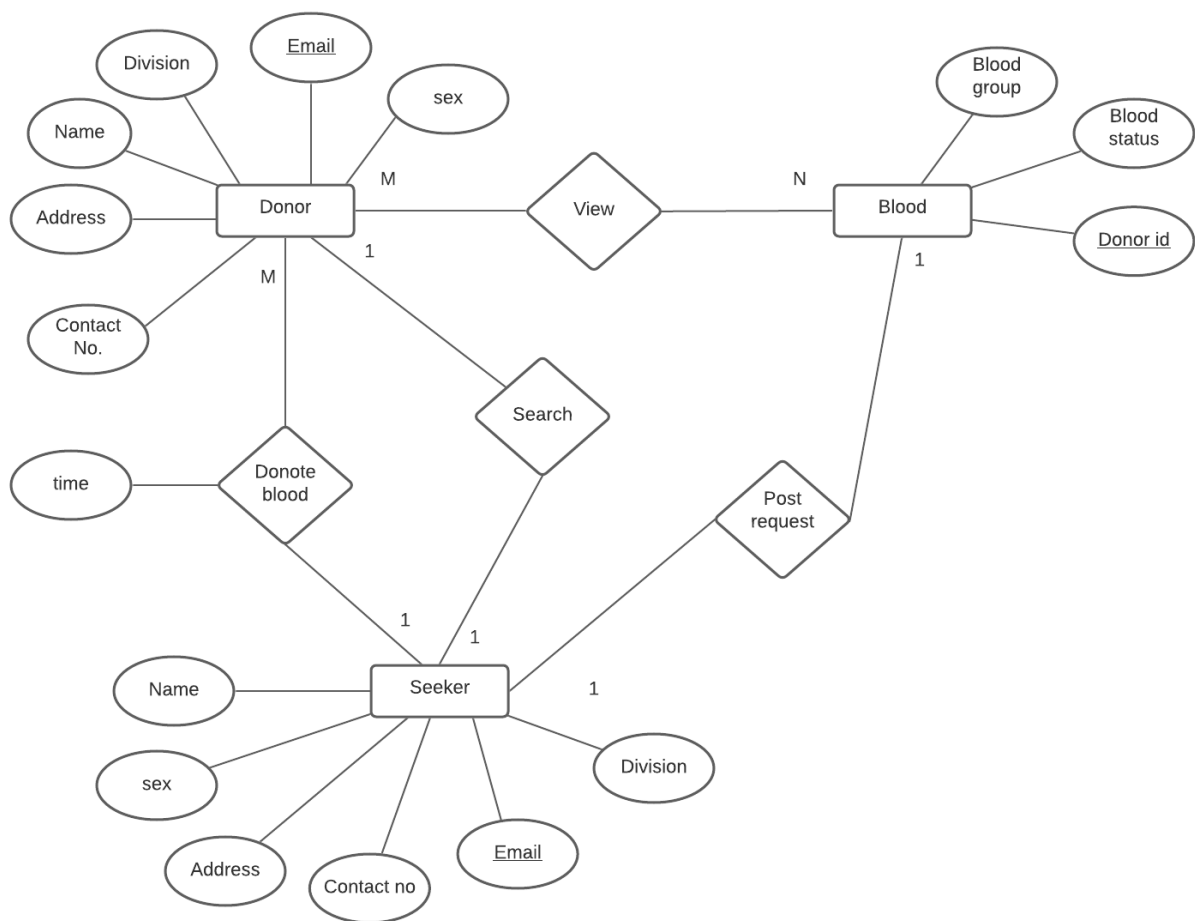
Scenario	<ol style="list-style-type: none"> 1. In order to access to application both the actors have to register first and after fulfilling all the requirements they will able to see the apps homepage list of donors and request blood donation post. 2. If they already registered in the system, then they have to enter the details in order to get access in the system. If the given details are appropriate, then they will be verified. 3. If they forgot their password, they have to the forget password and just reset their password. 4. The user will be given the chance to reset their password if their login details are not verified. 5. The donor and seeker have functionalities like edit their details and update their post and donor and seekers both can post the blood request and they can also contact to their phone.
----------	---

Use Case	Search
Primary Actors	Donor and Seeker
Goal Context	Enable both the Donor and Seeker can Search the members and their details.
Scenario	<ol style="list-style-type: none"> 1. Seeker can able to search the Donor as per the blood group and their location and Address. 2. Both of them can search the details of donors as well as Seeker. 3. Both the Donors and Seekers can search the request for blood donation.

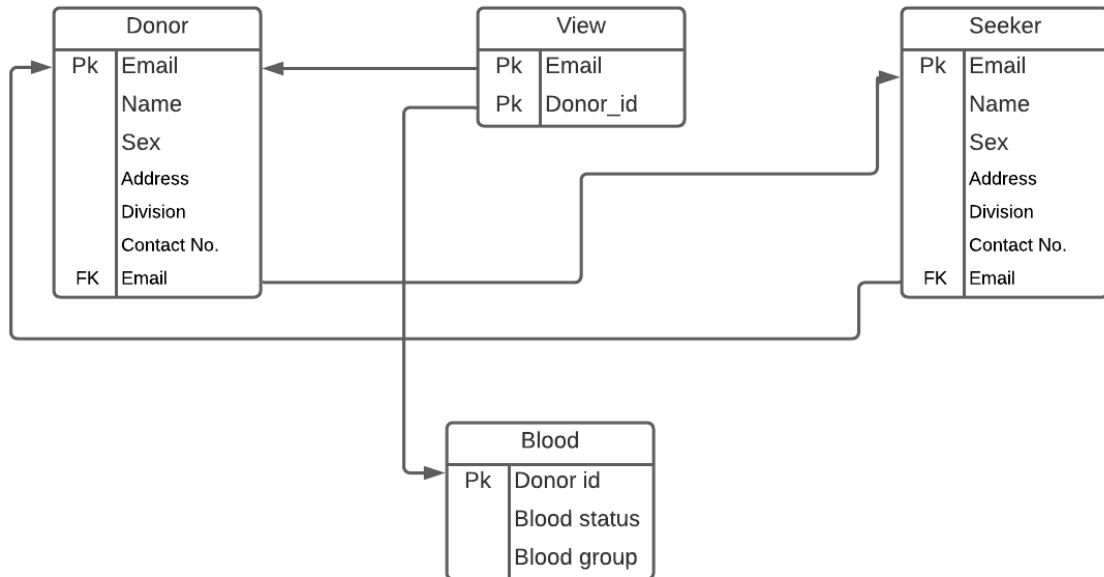
Use Case	Post Blood request
Primary Actors	Seeker and Donor
Goal Context	Enables the Seeker to post a request of blood in homepage or Send request to Donor.
Scenario	<ol style="list-style-type: none"> 1. Seekers can post the blood request on the on homepage or send request to particular Donor.

	<ol style="list-style-type: none"> Donor will be notified if donor accept the request the seeker must set time and hospital for blood donation. Seeker can also call to donors directly through phone and request for blood.
--	--

ER Diagram



Relational Schema



Sequence Diagram

