

Project Documentation

Blood Donation Management System

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**Project Functionality**

* Main aim of the project is to provide blood to the needy person.
* User can login and send the request to get the required blood type.
* Any person who is interested in donating the blood can register himself.
* Admin is the main authority who can do addition, deletion, and modification if required.
* Only admin can see the list of donor and other details of the donor.
* If stock isn’t available for the required type of blood in that case admin can contact donor for the blood donation.
* After login user can request for the required blood, If the blood is available in that case it will be granted by the admin.
* In case of unavailability of the required type of blood user will get the notification to wait and admin will contact him/her.

**USE CASE**

**PRESENTATION LAYER:**

* By default, routing path set by the react router home page will get open where home tab, about, contact and login tab can be seen.
* Home tab, about, contact and login tab are connected through Navlink.
* In login tab we have given two options which are login as Admin & user.
* Admin can also register the donor and admin can check the list of donor. Admin can search the donor with blood group and location. Admin can search the donor with blood group and location.
* In the stock tab admin can increase and decrease the stock also admin can check all stock.
* Admin can check the request send by the user.

**SERVICE LAYER:**

* In the service layer, When user login with id and password it connects with backend by using “AXIOS http library”.
* When user requests for the blood admin will get the notification via email.
* User will get the notification via email if the required type of blood is not available in the stock.

**DAO Layer:**

* We have created three tables in the database Admin, Donor and User and connected them to the service layer by JDBC.

**PROBLEMS FACED DURING PROJECT:**

PROBLEM 1:

* We were facing problem while integrating the Login Page with the other components of the project.

RESOLUTION:

* Due to insufficient knowledge of Routing ,we did some POCs regarding React routes and we finally learnt how to integrate all the components with login page.

PROBLEM 2:

* We were having issue in connecting frontend to backend.

RESOLUTION:

* We tried multiple solutions by taking reference from google and finally resolved it by using JPA.

PROBLEM 3:

* We were having trouble in sending notification to the user about blood availability.

RESOLUTION:

* For time being we are using hard code for sending an email.

**LEARNINGS DURING THE PROJECT**

* We learnt number of technologies like Express, Nodejs, CSS, Reactjs and Springboot.
* Despite the methodology used, there must be some documentation should available as a resource so that if new member comes into the project he/she can understand the project and work effectively.
* We learnt how to use GITHUB which simplified the process of working with other people and made it easy to collaborate on project. It helped us to easily merge our changes in with the master branch of the project.
* We also used HYGGER as our scrum board to organize tasks, assign specific tasks to team members, and track each task through its lifecycle.