Technical Documentation:

This technical documentation provides an overview of the architecture, implementation details, libraries/frameworks used, and other technical aspects of the Blood Donation Management System. Developers and administrators can refer to this documentation for a comprehensive understanding of the system's technical foundation and functionality.

1. Architecture:

The Blood Donation Management System is designed as a client-server application, following a three-tier architecture:

a. Presentation tier:

- The frontend is implemented using **HTML** to create a responsive and interactive user interface.
- **CSS** with the usage of **thymeleaf** is used for styling to ensure a clean and consistent design.

b. Application Tier:

- The backend is built using **Spring MVC framework** to create a robust and scalable server.
- **Java Programming** is used **to implement the Spring Framework.**

c. Data Tier:

- My application is using **MySQL** as the database management system to store and retrieve donor, admin, and request information.

2. Implementation Details:

a. User Authentication:

- Passwords authentication and authorization are implemented using JavaScript.

b. Donor Registration:

- Donors are manually registered by administrators through a dedicated interface, where essential details are collected and stored in the database.

c. Blood Request Management:

- Blood requests are stored in the database with relevant details such as blood type, Full Names, Addresses, etc...

- Administrators can efficiently match donors with specific blood types to incoming requests.

3. Libraries/Frameworks:

a. Frontend:
- CSS
- HTML
- JavaScript

b. Backend:
- Spring MVC
- Java Programming

c. Database:

- MySQL as Database

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