Implementation Document

for

Central Blood Bank Management System

Version 1.0

Prepared by

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Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.0	Nibir Baruah	Initial Draft	20/03/23
	Aditya Prakash		
	Amit Kumar Singh		
	Harsh Patel		
	Anuj Chaudhary		
	Ayush Singh		
	Manish Mayank		
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1 Implementation Details

Provide the details of programming languages, frameworks, libraries, database systems, build systems, etc. that you have used for implementing your software.
Provide a brief justification of choosing any tool by stating its benefits over the alternatives.

Frontend:

For the frontend part of the project, we have used HTML, CSS and JavaScript. Advantage of using these languages is that they are supported by all browsers and they can be integrated with any backend framework. Also, they are lightweight and thus make the system faster. For styling purposes, we used Bootstrap and Google Fonts. The advantage of using these frameworks in the frontend is that they help in creating responsive designs much faster than without them. They also provide cross-browser compatibility.

Backend:

For the backend, we used Python with the Django framework. One of the biggest advantages of using the Django framework is that it is independent and complete in itself. It does not require any external solution. Django is everything from ORM to the web browser itself. Also, codes in Django Framework are ‘Keep It Short and Simple’ and ‘Don’t repeat yourself’ compliant. Moreover, python also opens up the possibility to use machine learning or AI based components in the project in future deployments.

As a database language we chose SQLite. Reasons for using this database language in place of others like MySQL and PostgreSQL are that SQLite is lightweight and thus provides better performance, does not require installation, is reliable and portable. Also, it works very well with our chosen Django Framework.

For version control and collaboration, we used git and GitHub respectively. It allowed us to divide our work and work parallelly in different branches and efficiently develop the app.

2 Codebase

Provide the link to your github repository.
Mention briefly how to navigate the codebase.
https://github.com/p-harsh/Raktarpan

The src folder contains the entire code. There is a readme file for running the code.

3 Completeness

Provide the details of the part of the SRS that have been completed in the implementation.

Provide the future development plan by listing down the features that will be added in the (may be hypothetical) future versions.

We have implemented all the components mentioned in the SRS document.

Our vision for this app is to further extend the interface to include more functionalities and make it a one-stop solution for blood donors, blood banks and consumers. One more functionality we would like to add in the future is an interface to book/request blood units from a blood bank. That way the concerned individuals can be sure of getting the required blood units when they reach the blood bank. The request feature would have an expiry period of about a week. Further, there could be feature for registering for delivery of blood units to various locations. The user would have to first request blood units. On acceptance, the user could choose to deliver the blood units to his home.

Appendix A - Group Log

<Please include here all the minutes from your group meetings, your group activities, and any other relevant information that will assist in determining the effort put forth to implement your software>

Weekly meetings for discussing work done and future division of work, except the mid sem break week.