DBMS Mini Project
Panel E
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SRS DOCUMENT: COVID-19 PLASMA DONATION SYSTEM

1. Introduction

- The Covid-19 Plasma Donation Bank will be the database web app for users (mainly recovered Covid 19 patients) to volunteer for donating their plasma to active Covid-19 patients.
- This bank will help in streamlining the process.
- The volunteer would be able to find and choose where he is willing to donate his plasma with the help of our database.
- Also the hospital authorities could schedule the donation process by filtering the volunteer data and review the services they offer with the help of a feedback system.

1.1 Purpose

- The purpose of this project is to maintain the details of the Covid 19 plasma banks as well as the details of the recovered patients who are willing to donate their plasma to help others in need.
- The main purpose of the system is to apply for donation, by giving the required details (age, weight, etc.) and get a particular slot for donation from the hospital by offline means.
- As this project is fully online, it prevents plasma donors and receivers from standing in queues outside the hospitals and hence saves a lot of time, eliminating their chances of getting infected again.
- The details will be stored using DBMS, thus saving the time and efforts of the hospital too.

1.2 Scope

- It displays the eligibility criteria for Covid 19 plasma donors.
- Shows the details of the Covid 19 plasma banks in different cities.
- Displays the total count of required plasma donations for each hospital.

- Continuously updates the number of Covid 19 patients needing plasma per hospital.
- Accepts necessary details from the users willing to donate.
- All details are stored using DBMS.
- Lets users give feedback related to the hospital after donation.

1.3 Definition, Acronyms, Abbreviation:

- JAVA -> platform independence
- SQL -> Structured query Development Environment
- SRS -> Software Requirement Specification

2. OVERALL DESCRIPTION

2.1 Product Perspective

- It is a web app that implements a client-server model.
- The Covid-19 Plasma Donation System provides a simple mechanism for users to identify donation banks and for hospitals to identify potential donors.

2.2 Software Requirements

- Front end:

1. Android developer tool
2. Advance java
3. Bootstrap

- Back end:

1. MySQL
2. JavaScript

2.3.1 Functional Requirements

R1. Search

- Input: Search for any city.
- Output: List of hospitals in that city along with numbers of Covid-19 patients that need plasma are displayed with 'donate' button alongside.

R2. Registration form

- Input: Click on donate button.

- Output: Registration form which accepts the necessary data (eg: personal details, eligibility criteria, etc).
- Forms are forwarded to the respective hospitals.

R3.Offline slot booking

- Input: Users fill the registration form which is accessed by the respective hospitals. Hospitals verify the eligibility criteria and provide slot timings for donation through offline means.
- Output: Users are notified with the slot timings for donation by hospital.

R4. Feedback

- Input: After donation, users can fill the feedback form to share their experience regarding how they were treated at the hospital.
- Output: Their feedback gets stored that can be reviewed by the respective hospital and the association of hospitals.

2.4.2 Non-Functional Requirements

- User requirements:

1. The system shall allow the user to access the system from phone, desktop, laptop using the web application as interface.
2. The system is user friendly which makes it easy to use.

- Availability Requirement:

1. System is available hundred percent for the user and is used 24 hours a day and 365 days a year.
2. The system shall be operational during entire pandemic to serve the affected.

- Efficiency Requirement:

1. If system fails it will be recovered by the backup in no time.
2. The details would be backed up on the cloud.

- Accuracy :

1. The system would accurately provide real-time information taking into consideration various concurrency issues.
2. It would always show real time data.

- Performance Requirements:

1. The information is refreshed depending upon whether some updates have occurred or not in the application.
2. The system shall respond to the number and no less than 2 seconds from the time of submitted.

3. Responses to the information shall take no longer than 5 seconds to appear on the screen.

- Reliability Requirement :
  The system would be 100% reliable due to the importance of data and the damages that can be caused.

2.4 User Characteristics

- User Module: In the User Module, user will :

1. Receive information regarding eligibility criteria in order to donate Covid-19 plasma.
2. Have access to hospital wise data of how many patients need Covid-19 plasma where in the hospitals will be filtered according to cities.
3. Obtain details of nearest Plasma Donation Bank.
4. Have a 'Donate' option and access to registration form in order to apply for donation.
5. Will receive time slots for donation by respective hospitals through offline means if eligibility criteria is met.
6. Have access to a feedback form to share their experiences post donation.

- Hospital Module: Each hospital will:

1. Update the data of Covid patients who need plasma.
2. Access the feedback forms submitted by the user for their particular hospital.
3. Access the registration forms filled by users nearest to them.
4. On verifying the eligibility criteria, provide time slots to the user for donation using offline means.

- Admin Module:

1. Stores details of hospitals and number of Covid 19 patients needing plasma in a database which updates itself based on entries by hospitals.
2. Stores registration details of users in a designated database.
3. Stores feedback form details in a database.

- Association of All Hospitals Module:

1. Verifies data of Covid 19 patients put up by all hospitals.
2. Accesses feedback forms of all hospitals for review.