GLA UNIVERSITY

TOPIC: MINI PROJECT SYNOPSIS ON Full Stack Realtime Chat Messaging App

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DECLARATION

We hereby declare that the project work entitled **"Vein"** submitted to the GLA University, is arecord of an original work done by us groupmates under the guidance of
Mr. Akash Kumar Choudhary, and this project work is submitted in the partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Computer Science & Engineering. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

Acknowledgement

It gives us a great sense of pleasure to present the synopsis of the B.Tech mini project undertaken during B.Tech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe special debt of gratitude to Mr. Akash Kumar Choudhary, Technical Trainer, for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towardsa constructive goal and for his constant support and guidance to our work.

His sincerity, thoroughness and perseverance has been a constant source of inspiration for us. We believe that he will shower us with all his extensively experienced ideas and insightful comments at different stages of the project & also taught us about the latest industry-oriented technologies. We also do not like miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and co-operation.

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INTRODUCTION

The emergence of modern technologies has had profound impacts on the education landscape, with online learning now an integral part of the learning process. The main advantages of online learning are flexibility and accessibility Student access to educators to assist them is no longer restricted to the hours of operation of schools and universities, but can be provided anytime and anywhere. Face-to-face tutoring is a well-established, and effective, instructional method. However, there is a need for more empirical research to be directed toward investigating users' experiences with online tutoring services, their impact on academic confidence (self-efficacy), and achievement scores. The purpose of this project is to develop a back-end application for e-learning applications and queries using graphical user interface

Primary Reason to Choose This Project

The primary reason to choose a Blood Camp website project where users can find nearby blood group donation people is to provide a valuable service to those who need blood in emergency situations. By allowing users to search for nearby blood donors, the website can help connect individuals in need with potential donors quickly and efficiently.

In emergency situations, time is of the essence, and finding a compatible blood donor can be critical for saving lives. By using the Blood Camp website to search for nearby blood donors with a specific blood group, users can quickly find potential donors in their local area, which could potentially reduce the time it takes to receive a life-saving blood transfusion.

Additionally, the website could encourage more people to donate blood regularly by highlighting the need for donors in the community. By showing users the real-time demand for blood donations in their area, the website can help raise awareness about the importance of regular blood donation and encourage more people to become regular donors.

Overall, a Blood Camp website project that includes a feature for finding nearby blood group donation people has the potential to make a significant impact on society by helping to save lives and raising awareness about the importance of regular blood donation.

The Main objective of the Project.

The main objective of choosing a Blood Camp website project could be to address the critical need for safe and accessible blood donations. Blood donation is a life-saving procedure that can help people in emergency situations, and regular blood donation is essential to maintaining adequate blood supply levels in hospitals and blood banks.

However, despite the importance of blood donation, many people are not aware of the need for donations, or they may not know how to donate. A Blood Camp website can help address this problem by providing a centralized platform where individuals and organizations can come together to organize and participate in blood donation camps, and donors can find information about upcoming donation events.

The website can also provide a range of features to streamline the donation process, such as registering donors and volunteers, tracking inventory levels, and providing information about blood types and the donation process. Additionally, a Blood Camp website with a feature for finding nearby blood group donation people can help connect donors with those in need quickly and efficiently.

By creating a Blood Camp website, the objective is to increase awareness about the importance of blood donation, encourage more people to become regular donors, and make it easier to organize blood donation events and connect donors with those in need. Ultimately, the objective is to save lives and improve the overall health of communities by ensuring that safe and accessible blood donations are available to all who need them

Scope Of the Project

The scope of a Blood Camp website project would typically involve the following:

1. User registration and login: The website would allow users to create accounts and log in to access the features and services provided.
2. Search functionality: The website would have a search feature where users can search for upcoming blood donation events, as well as search for nearby blood donors with a specific blood group.
3. Blood donation event management: The website would allow organizations to create and manage blood donation events, including scheduling, location, and volunteer registration.
4. Donor registration and management: The website would allow users to register as blood donors and manage their profiles, including blood type, contact information, and donation history.
5. Blood inventory management: The website would allow blood banks and hospitals to manage their blood inventory levels, including tracking donations, expiration dates, and storage location.
6. Blood donation education and information: The website would provide information about the importance of blood donation, the donation process, and the different types of blood.
7. Admin dashboard: The website would have an admin dashboard to manage and oversee the website's various features and services, including user management, event management, and inventory management.
8. Mobile optimization: The website would be optimized for mobile devices to ensure that users can access the website on the go.

Overall, the scope of a Blood Camp website project would involve creating a platform that can streamline the blood donation process, make it easier to organize blood donation events, connect donors with those in need, and provide essential information about blood donation to raise awareness and encourage more people to become regular donors.

Working Methodology of the Fullstack chat Project.

The working methodology for a Blood Camp website project typically involves the following steps:

1. Planning: The first step in the working methodology is to plan the project, including determining the project scope, defining the project objectives, and outlining the features and functionality of the website. This step also involves creating a project timeline and budget.
2. Design: Once the project plan is in place, the next step is to design the website's user interface, including wireframes, mockups, and prototypes. This step involves creating a website design that is user-friendly, visually appealing, and easy to navigate.
3. Development: The development phase involves creating the website's functionality, including user registration and login, search functionality, blood donation event management, donor registration and management, blood inventory management, and admin dashboard. The website may be built using web development frameworks such as Laravel or Django, and programming languages such as PHP, Python, or JavaScript.
4. Testing: Once the website is built, it must be thoroughly tested to ensure that all features and functionality work as intended. This step involves testing the website's performance, security, and usability.
5. Deployment: After testing is complete, the website can be deployed to a production environment. This step involves configuring the website for hosting on a web server and setting up any necessary databases or other infrastructure.
6. Maintenance: Once the website is live, ongoing maintenance is required to ensure that it remains up-to-date and secure. This step involves monitoring the website for issues, fixing bugs, and performing regular updates to keep the website running smoothly.

Overall, the working methodology for a Blood Camp website project involves a structured approach to planning, design, development, testing, deployment, and maintenance to ensure that the website is user-friendly, functional, and meets the project objectives

Details About the Hardware and the Software

Software and hardware requirements

- A Mac, Linux, or Windows 10 or Windows 11 computer
- An internet connection
- A web browser like Chrome or Microsoft Edge

Frontend and backend

- FRONTEND – REACT JS, CSS, BOOTSTRAP
- BACKEND – NODE JS, EXPRESS JS, MONGO DB

Project description

The purpose of this project is to design a platform designed to help connect blood donors and recipients in a particular area. The website will have two main features: blood camp information and a blood donor registry.

The project is divided into 3 modules – Sign-In, Sign-up, Dashboard. The roles of the modules are as follows:

- **Sign-up:**

The sign up page allows a user to create an account by their credentials to gain access to application

- **Sign-in:**

The login page allows a user to gain access to an application by entering their username and password. A user navigates to an application and is presented with a login page as a way to gain access to the application. There are two possible results:

  - Authentication is successful and the user is directed to the application landing page.
  - Authentication fails and the user remains on the login page. If authentication fails, the screen should show an informational or error message about the failure.

- A user is automatically logged out due to inactivity. In this event, they will be returned to the login page, which will display an informational message explaining what happened. Once the user logs in again, they should be taken back to the page they were previously on before being timed out. Thirty minutes is the suggested duration before a session timeout, but this is subject to change based on your product's security requirements.
- A user has forgotten their username and/or password. A link is available to begin the process to reset this information. Once the user clicks on one of these links, the contents of the login page is replaced with fields specific to recovering their username and/or password. There are a number of different ways the user could recover their password. This pattern does not dictate which methods an application should follow. Some options include:
    - The user could provide their e-mail and be sent a temporary password or a link to reset their password.
    - The user could answer a security question.
    - The user could get a message explaining that they have to contact a specific person

- **Dashboard:**

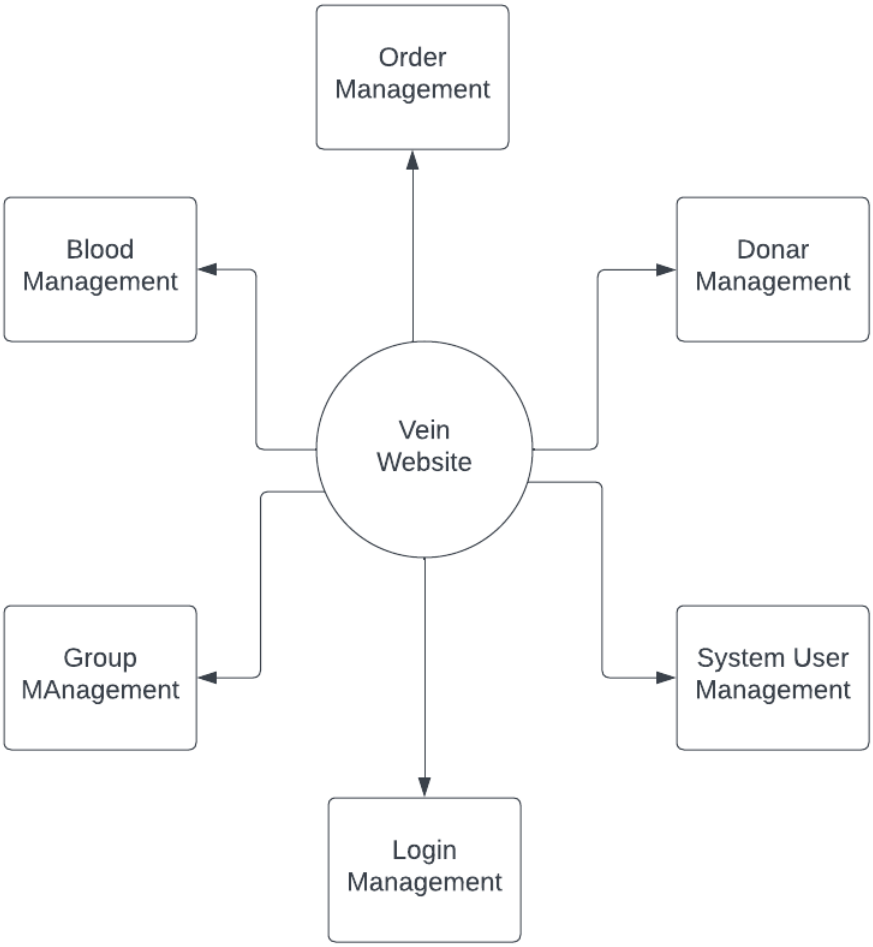
The blood camp information page will provide a list of upcoming blood donation events, including date, time, and location. Users will be able to filter the list by location and date to find events near them. The page will also provide information on how to register for the blood camp and what to expect during the donation process.

The blood donor registry page will allow users to search for registered blood donors in their area. Users will be able to search for donors by blood type, location, and availability. Donors will be able to create a profile on the website that includes their blood type, contact information, and availability to donate. Users will be able to contact potential donors directly through the website to arrange a donation.

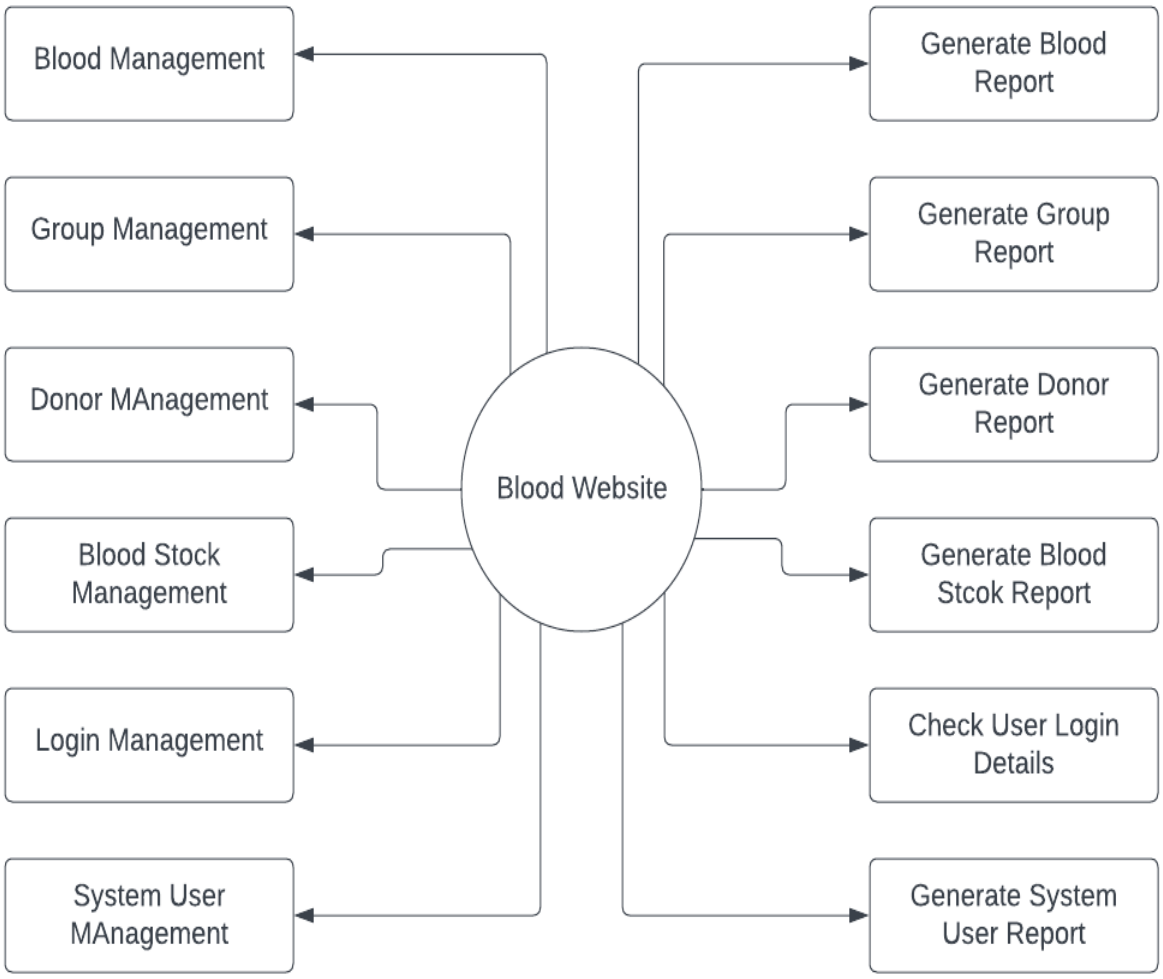
In addition to the two main features, the website will also have information about the importance of blood donation, eligibility requirements for donors, and frequently asked questions about the donation process.

Data Flow Diagrams

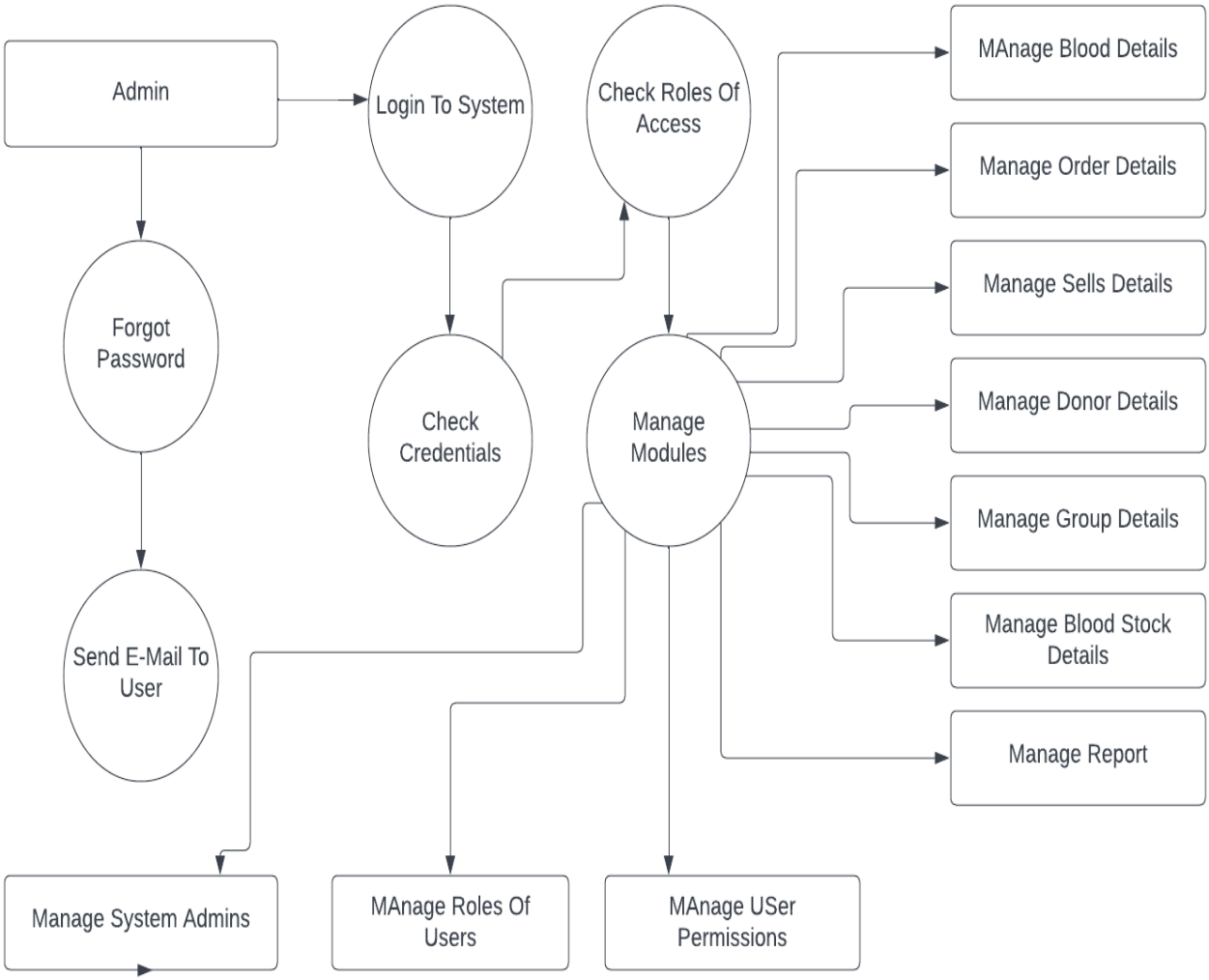
0 Level DFD



1 Level DFD


Blood Management
Group Management
Donor MAnagement
Blood Stock Management
Login Management
System User MAnagement
Blood Website
Generate Blood Report
Generate Group Report
Generate Donor Report
Generate Blood Stcok Report
Check User Login Details
Generate System User Report

2 Level DFD


Admin
Login To System
Check Roles Of Access
MAnage Blood Details
Manage Order Details
Manage Sells Details
Manage Donor Details
Manage Group Details
Manage Blood Stock Details
Manage Report
Forgot Password
Check Credentials
Manage Modules
Send E-Mail To User
Manage System Admins
MAnage Roles Of Users
MAnage USer Permissions

REFERENCES

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- Full-Stack
  Modern Full-Stack Development
  Pro MERN Stack
- React
  The Road to Learn React
  React Explained
- Full-Stack React Projects

Websites:

- https://reactjs.org/
- https://www.w3schools.com/
- https://getbootstrap.com/
- www.google.com

Faculty Guidelines:

Mr. Akash Kumar Choudhary (Technical Trainer, GLA University)

GitHub Repository link:

https://github.com/TewatiaAryan/VEIN