Blood Management System

Problem Statement:

An application providing multiple services helping its users to select the services they need and delivering them at their fingertip making their life easy and accessible to resources required. This application can be used by wider audience across the countries as the functionality is adaptable and provides with dependable data. This application helps in contributing better health to the people.

Proposed Solution:

Blood Management System is an organized system designed and programmed to deal with day-to-day blood donation requests and management of services that a patient needs access to, in cases of emergency or an injury. The program can manage patients records, data about lab tests, the status of the patient, events organized. The project is about blood donation where patients can be registered through the login process and can go through a doctor's consultation, take lab tests as prescribed by the doctor, and request or donate blood from blood banks, Federal Government organization and Rehabilitation Center. Based on criticality, work requests are processed for the patients.

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Entities

● Enterprise

1) Hospital
2) Blood Bank
3) Federal Government
4) Rehabilitation Center

● Organization

1) Medical Care Organization
2) Medical FacilitiesOrganization
3) Physicians Organization
4) Blood Management Organization
5) Diagnostic Center Organization
6) Policies Finances Organization
7) Medical Awarness Campaign Organization

● Roles

1) System Admin
2) Doctor
3) Physicist
4) Physician
5) Patient

6) Health Officer
7) Event Organizer
8) Blood Finding Manager

Steps to regenerate this project

- Clone the project using git by running the below command in the terminal at the location you want to clone locally: ``` git clone https://github.com/varshakumbham1/AED_Final_Project.git```
- Open the project in Eclipse or Netbeans
- Add all the dependencies to libraries
- Right click on the project from project file manager
- Click clean and build.
- Run the application.

Functional Description:

1. As a user, one should be able to login with their credentials to perform various operations as per the role.

2. Once the user login if he signs in and his role is:

    a. **System Admin**: He/She would be able to create, update and delete a Network which creates the list of cities. Also the admin should be create an Enterprise for which an Enterprise Admin should also be created.
    b. **Doctor**: Doctor should be able to select a Patient and order the blood Test which navigates to Request Lab Test Panel. Here the type of test is selected and request for the selected test. Once the results are ready they will be available in Test Data Panel. Now doctor can request the blood and submit the request. Also he/she can select physician and selects the therapy session. Finally doctor can select the blood type, patient and notify the blood to the procurement team.

c. **Patient:** Patient can divided as two categories. Donor and Recipient Patient where in a Donor Patient fills the details such as name, age, gender, blood group and submit it.
d. **Blood Finding Manager**: Receives the requests and changes the status to in process or complete based on the request flow.
e. **Physician:** Gets the list of all the Patients and assign to himself by selecting the patients.
f. **Physicist**: Assigns some of the patients to himself and diagnose the lab reports.
g. **Health Officer**: Views all the details of the event fund request. Performs two operations either accept or decline and have access to all the list of donors.
h. **Event Organizer:** Have access to all the event details. Can Create New Events.

3. The User can log out at any point in time and return to the login page.

User Interface:

1. The Whole application is made sure to be built keeping in mind various types of users that would be using the application.
2. The Application has a very simple UI.

Goals and Milestones:

1. At the end of the project we need to have a working application that encompasses all the above mentioned roles and assists each person with their end to end operations of their role.
2. The users should be able to receive mails from the Blood Management System that would give the user a track of the expenses and keep them updated with creation and discharge status of the patient

Conclusion:

A Blood Management System has been developed which is very helpful for the real-world scenarios where many people have lost their life due lo unavailability of the blood distribution. With this application and an organized model the above stated problem can be vanished and match the blood groups at ease.