LITERATURE SURVEY FOR PLASMA DONOR APPLICATION

Literature survey was conducted to become familiar with the project. Number of research papers is available for Plasma Donor Application. Below are a few papers taken for literature survey.

TITLE: Instant Plasma Donor Recipient Connector Web Application [2022]
AUTHORS: Ripathi S, Kumar V, Prabhakar A

The world is suffering from COVID 19 crisis, and we haven't found any vaccine yet. But there is another scientific way from which we can help to lower the death ratio or help the COVID 19 affected person is by donating Plasma from recovered patients. With no approved antiviral treatment plan for the deadly COVID-19 infection, plasma therapy is an experimental approach to treat COVID positive patients and help them recover faster. The therapy is considered to be safe and promising. In the proposed system, donors who need to donate plasma can donate by uploading covid-19 certificate and blood bank can view donors and can raise requests to donors and the hospital can register/login and can search for plasma. The main purpose of the proposed system, the donor who wants to donate plasma can simply upload their covid19 traced certificate and can donate the plasma to the blood bank, the blood bank can apply for the donor and once the donor has accepted the request, the blood bank can add the units they need and the hospital can also send the request to the blood bank that urgently needs the plasma for the patient and can take the plasma from the blood bank.

TITLE: Plasma Donation Website using MERN stack [2021]
AUTHORS: Neha Soni, Abhishek Jaswal, kritika, Ridhi Sood

The proposed project is to make it easier for the COVID-19 patients to get a plasma donor easily as well as donate plasma if they have recovered. The system targets two

types of users: the people who want to donate plasma and the people who need plasma. The person who wants to donate his/her plasma needs to register in our application providing required information which are name, age, blood group, phone number, and location. The user can also view the total active cases, nearby vaccine centers, hospitals address, recovered cases, helpline number. The main objective of developing the website is to make it easier for the COVID-19 patients to get a plasma donor easily and as soon as possible.

TITLE: A Research Paper on Blood Donation Management System [2021]
AUTHORS: Devanjan K. Srivastava, Utkarsh Tanwar, M.G.Krishna Rao, Priya Manohar, Balraj Singh

The proposed system provides a web-based application that is acutely useful for emergency services. It will come very useful in urgent times by providing donors information filtered by area and blood type. It allows the donors to communicate with other donors using our ChatBot API to inform them about emergencies. The system consists of a well-maintained database to keep all the registered records. It also provides news and information about the ongoing coronavirus pandemic. In the end, it provided us with the knowledge regarding the latest technology required to build a web-based application. A database has been set up to store historical data related to donation and reception of blood and also to store data from camps so as to make future decisions based on concrete analytical results. Here the server has the duty to fetch the COVID API through the request library and later it gets converted to JavaScript object notation which decreases the weight and makes it simple to work with the data. Here data gets cleaned till a request status of 200. And now cleansing of the data gets provoked where each column gets stored as an array of lists which are later assigned to a dictionary. Finally, data gets returned and rendered to the page. As the process data of country and state gets fetched, cleaned, and stored to uplift the precise result. Data of the world get updates for every 24 hours which includes columns such as Country, country code, total cases, total deaths, total recovered, date, and states of India

updates for every 20 min which includes columns such as Province/State, confirmed total deaths, total recovered, active cases.

TITLE: Blood Donation Management with Modern Engineering [2021]
AUTHORS: Tanisha Madan, Narender Bhardwaj, Shivam Kumar Mishra

The project mainly focuses on the issue of Blood availability when someone needs it on an urgent basis and when someone wants to donate blood and doesn't have proper guidance for the same. m. Rudhiram is a web-based application which creates a link between donors and patients who need blood. Rudhiram provides donors a list of nearby blood camps from its database where a person can schedule a visit and donate blood easily with no paperwork.. Rudhiram provides a very efficient and advanced way for blood transfusion between hospitals/donors and patients. The purpose of the project is to simplify and automate the process of searching for blood and to maintain a centralized record of blood donors, recipients, blood donation camps, and the availability of stocks of blood in hospitals and blood banks.

TITLE: Developing a plasma donor application in AWS [2020]
AUTHOR: Aishwarya R Gowri

During COVID 19 crisis the requirement for plasma increased drastically as there were no vaccinations found in order to treat the infected patients. In such a situation it was very difficult to find the plasma donor, check whether the donor was infected previously and was recovered, and which donor is eligible to donate plasma was a challenging task. As the plasma therapy was one of the ways to treat the infected patients, getting the donor details played a major role. The proposed method helps the users to check the availability of donors. A donor has to register to the website providing their details. The registered users can get the information about the donor count of each blood group. The database will have all the details such as name, email, phone number,

infected status. Whenever a user requests for a particular blood group then the concerned blood group donors will receive the notification regarding the requirement. A Json code is written to store the information, to fetch the requested information in lambda.

TITLE: A Secure Cloud Computing Based Framework for the Blood bank [2018]
AUTHORS: Shreyas Anil Chaudhari, Shruti Walekar, Khushboo Ashok Ruparel, Vrushali Milind Pandagale

The main aim of creating a cloud-based blood bank system is to make the blood available on time to the people, even in emergency situations. With the help of this project, the user can be able to view information about every entity related to blood banks i.e. hospitals, donors, a location of another blood bank etc. The security factor is maintained properly. Every time the new user accesses the system as a donor, he/she has to register himself/herself and provide a proof of their identity like license or government document on which the blood group of the person is mentioned. This project will consist of the android application which can be used in the smart phones; it will contain all the information of the donor and nearby hospitals. The application will also contain a GPS (Global Positioning System) system to track the location of the nearby blood banks or hospitals. As the person did not need to go out far, for the search of the blood banks and hospitals, this application helps to save time to a great extent. This also helps in correct and quick decision making.

TITLE: Android Blood Bank [2016]
AUTHORS: Prof. Snigdha, Varsha Anabhavane, Pratiksha lokhande, Siddhi Kasar, Pranita More
Blood banking is a cache or bank of blood or blood components, gathered as a result of blood donation, stored and preserved for later use in blood transfusions. The proposed work has security, to protect the contact details of the donors in web applications where

it can be misused by third parties. It also maintains the amount of each available blood group; if the stock of a particular blood group is lower than the required amount then the proposed method notifies the donor to donate blood. In addition to web application, an android mobile application is proposed to search for the donors who are available nearby during emergency cases such as accidents. The web based android application is readily scalable, efficient and adaptable to meet the complex needs of blood banks who are key facilitators for the healthcare sector.

TITLE: Blood Donation Management System [2015]
AUTHORS: K M Akkas Ali, Israt Jahan, Md. Ariful Islam, Md. Shafa-at Parvez

The Blood Donation Management System is a 24×7 system which is essential for different kinds of people like blood donation system personnel, doctors, donors, recipients and other general users. Here any person who has undergone blood test can be registered in any authorized blood bank as a donor. That person can get facilities like information about blood donation systems, donors and recipients. This paper facilitates services like direct access to the site to get donor's information if there is an emergency. The goal of the paper is to present an online edge for mutually giving blood donors and patients (blood requesters) who need blood. The primary objective of the paper is to create interactive blood donors, blood requesters and blood bank clinics. This web application is to be conceived in its current form as a dynamic site requiring constant updates both from the blood donors as well as the blood requesters and is to enable blood donors (volunteer) to place their profile and blood requesters (patients) to publish their requests. In the future, we will develop a mobile application which will provide the users (with multimedia cell phones) the service of finding a blood donor with a map interface. Here the application will consist of a map which will highlight the various blood donors' locations and also it will give information about particular blood donors.