Ideation Phase
Literature survey

Date	23-09-2022
Team ID	PNT2022TMID11415
Project Name	Plasma Donar Application
Maximum Marks	4 Marks

Convalescent Plasma Therapy: Data driven approach for finding the Best Plasma Donors

Published in: 2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS) By M N Noorshidha; G. Aghila

Abstract

Convalescent Plasma Therapy is an investigational therapeutic method recommended as a treatment strategy for COVID- 19.It implies the possibility of implementing Machine Learning Classification models for predicting the Eligible donors and Regression models to predict the antibody level value of a donor from the person's clinical history before conducting tests for the same. The proposed system can help the health authorities approach the most probably efficient donors for the therapy rather than wasting time and test kits on a random donor who may or may not be eligible. The results from various ML algorithms trained on a synthetic clinical history dataset are examined and assessed as significant to some degree.

Advantages

The paper points out the complexities and inconveniences in finding a donor for Convalescent Plasma therapy. It shows how the problem can be solved in a data-driven way.

Disadvantages

Unavailability of authentic data.Upon the availability of real data, the system could be implemented and optimized to produce the best results.

mHealth: Blood Donation Application using Android Smartphone

Published in**:** 2016 Sixth International Conference on Digital Information and Communication Technology and its Applications (DICTAP) By uhammad Fahim; Halil Ibrahim Cebe; Jawad Rasheed; Farzad Kiani

Abstract

In health care services, blood donation is a complex process and consumes time to find some donor who has the compatibility of blood group with the patient. The objective of this application is to provide the information about the requested blood and number of available donors around those localities. It assists the requester to broadcast the message across the maintained volunteer blood donor network by our application and update the requester at the same time who is willing to donate the requested blood.

Advantages

mHealth is one of the best possible concepts for the provision of healthcare services and improve quality of life.

Disadvantages

We have to utilize the cloud computing service for keeping the application data available, anywhere and anytime.

Automated Online Blood Bank Database

Published in: 2012 Annual IEEE India Conference (INDICON) By Muhammad Arif; S. Sreevas; K. Nafseer; R. Rahul

Abstract

A number of online blood bank databases are available, however none of them offer the capability for a direct contact between the donor and recipient. A blood bank database is created by collection of details from various sources like Blood banks, NSS, NGO's, hospitals and through web interface. The data collected will be maintained in a central server. This central server will be associated with a Toll free number that can be used to connect to it. From the server the call from the required person is routed to the eligible donor's number.

Advantages

When there is urgent need for blood then If this model is adopted the caller is immediately connected to the donor.

Disadvantages

Tackling fake donors.

Nearest Blood & Plasma Donor Finding: A Machine Learning Approach

Published in: 2020 23rd International Conference on Computer and Information Technology (ICCIT) By Nayan Das; MD. Asif Iqbal

Abstract

The necessity of blood has become a significant concern in the present context all over the world. Statistics show that a tremendous amount of blood is needed yearly because of major operations, road accidents, blood disorders, including Anemia, Hemophilia, and acute viral infections like Dengue, etc. Recently a life-threatening virus, COVID-19, spreading throughout the globe. For them, plasma is needed to recover their illness. The Purpose is to build a platform with clustering algorithms which will jointly help to provide the quickest solution to find blood or plasma donor. Closest blood or plasma donors of the same group in a particular area can be explored within less time and more efficiently.

Advantages

In our whole project, we have built a platform for the blood donor and receiver. We have combined two well known clustering algorithm, k-means, and agglomerative clustering, to solve the problem.

Disadvantages

The required time is gradually rising by increasing the number of clusters.