# Problem Statement for Plasma Donor Application

Team members:-

Varun Vinod 195001123

Srivishnu 195001111

Thushita Mariaselvan 195001115

Abhishek Narayan 195001006

## Problem: -

There has been an increase in demand for blood plasma among hospitals and blood banks as they are additionally used in an experimental treatment for COVID-19. Hence there is a requirement for new infrastructure to facilitate donors, blood banks and hospitals for easier donation and access of blood plasma that could potentially satisfy the excess demand for it to be used for treatment.

## Background: -

Plasma is the liquid part of blood and more than 55% of human blood is plasma. Plasma is used to treat a variety of infections and is one of the oldest methods known as plasma therapy. Plasma therapy is a procedure in which blood is donated from a recovered patient to produce antibodies that fight infections. For example, during the COVID-19 crisis, the demand for plasma increased significantly as no vaccine was found to treat infected patients. Although the recovery rate was high with plasma therapy, the number of donors was very low and in such a situation it was very important to have information about plasma donors. Storing and Notifying about the current donors is helpful because it saves time and helps users track the information they need about their donors

## Relevance: -

There is no effective anti-viral treatment for COVID-19 there is a higher prevalence of other forms of therapy such as convalescent plasma therapy which has increased the demand for blood plasma. Also, due to frequent lockdowns and increased restrictions it has become harder to facilitate donors, furthermore contributing to the scarcity of resources that can be used for treatment.

## Objective: -

The main objective is to create an easy-to-use web application that can be used by donors to donate their blood to blood banks. Hospitals in need for blood plasma can request blood from blood banks. This application should have a wider reach to appeal to more potential blood donors. In case of emergency SOS, donation of blood can be done in minuscule time.

## Problems Faced By The People:-

- Receivers do not know the locations for receiving blood in case of emergency
- Elaborate procedures that impede people from donating blood
- Lack of information's for the  location at which donation of blood is possible
- Difficulty in tracking eligibility for donating blood
- Difficulty in requesting and responding during emergency situations

## How do people feel about this?:-

- Lack of dedication towards individual during donation makes people feel insecure
- Unable to save people during emergency due to lack of blood ,people feel guilty
- Lack of the blood requested makes people feel anxious