

PROBLEM STATEMENT

Plasma is the liquid portion of blood. About 55% of our blood is plasma, and the remaining 45% are red blood cells, white blood cells and platelets that are suspended in the plasma. Plasma is about 92% water.

○ **ROLE OF PLASMA:**

Plasma is necessary to help your body recover from injury, distribute nutrients, remove waste and prevent infection, while moving throughout your circulatory system. It is given to trauma, burn and shock patients as well as people with severe liver disease or multiple clotting factor deficiencies. It helps boost the patient's blood volume which can prevent shock and helps with blood clotting.

○ **CONVALESCENT PLASMA THERAPY:**

Convalescent plasma therapy uses blood from people who have recovered from an illness to help others recover. Blood donated by people who have recovered from COVID-19 has antibodies to the virus that causes it. The donated blood is processed to remove blood cells leaving behind liquid(plasma) and antibodies. These can be given to people with COVID-19 to boost their ability to fight the virus.

Convalescent plasma therapy may be given to people with COVID-19 who are in the hospital and are early in their illness or have a weakened immune system. This therapy may help people recover from COVID-19. It may lessen the severity or shorten the length of the disease.

○ **PROBLEM:**

With the number of people affected by COVID-19 infection, the demand for the plasma of recovered patients has also gone up tremendously. This creates chaotic situation for everyone as this is very crucial because this may risk many lives. So, this situation needs a systematic and quick solution.

○ **WHY PLASMA DONOR APPLICATION:**

Plasma saves lives. Smart applications are now considered an important communication tool and could be best utilized in plasma donation if they are designed to fit the user's needs and preferences.

The plan is to make a user-friendly application for users who are in need for plasma or wish to donate plasma.

Important factors like privacy, confidentiality and health conditions of donors and receivers will be considered while creating the application.

○ **ABSTRACT:**

This application is for anyone who needs a plasma or ready to donate plasma. This system has 2 roles: admin and user.

User can be a donor or a receiver(patient):

- both needs to register in the application
- donor need to provide required information that are name, age, blood group, phone number and other contact details
- patient needs to fill a form for applying a request for plasma by filling the required details
- user can search the donor by applying filters on age, distance, blood group etc.