

Software Engineering Lab

Subject Code: ITIT-3106

Group Project

Subject: Project Proposal

Project Title: Plasma Donation Information Portal

Group members:

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Overview of our proposal

Our Project will have its customers in the form of the concerned patients and the willing plasma donors

Our Project is designed to develop an online platform which will act as a network between the patients that have been medically instructed to undergo plasma therapy and the medically approved donors. Often when these patients need to undergo plasma therapy it becomes quite difficult to arrange and supply medically certified plasma sources in a short period of time. So, it is evident that the need for such a network is dire to make sure that the patients have an acute and accounted-for supply of plasma as medically suitable for them from the healthy donors. This way our project will help to bridge the gap between the concerned parties.

In the recent times of this COVID-era the need for this platform increases tenfold as plasma therapy is the recommended treatment for the patients. The plasma recovered from people who have successfully fought Covid-19 infection could save the lives of those in critical condition. Along with this, plasma therapy also plays an important role during organ transplant, and curing hepatitis, liver condition, paediatric HIV, animal bites, trauma, etc.

The project will have an online portal where the potential donors who have received medical clearance register themselves and then this data is made available to the hospitals where the patients are admitted. This way the patients have an immediate access to potential donors and their contact information

The project includes work on both the front-end and back-end components development. The project is not highly ambitious and can be done effectively by a single programmer over a long course of time but given the deadline that

has been assigned to us it becomes much more feasible with a team of 3 programmers that ensures the distribution of work relatively and makes sure that the goals are reached according to the designated timeline.

Theory of Constraints

Overview of the Existing Systems and Technologies

A portal being promoted by Cyberabad cops is encouraging people to donate plasma after they have defeated the viral infection and developed antibodies. The portal, <https://donateplasma.scsc.in>, is run by the Society for Cyberabad Security Council (SCSC), a joint initiative of the Cyberabad police, IT industry and other key stakeholders in the IT industry.

Scope of the Project

Plasma therapy has seen a lot of expansion in terms of medical usage and treatments in recent times and as the medical industry and research progresses, the need and demand of plasma therapy will rise even further. There are various medical benefits to plasma therapy that are already being discovered and so as the therapy will gain more practice, the need for a dignified and efficient portal for the customers to easily arrange for it will also ascend. The portal will gain a lot more customers and the network will expand as well.

Deliverables

Patients will be able to connect and interact with the donors on the portal with their contact details.

Feasibility Study

- **Financial Feasibility:** The project is financially feasible as it requires financial support to host the portal as well as manage the database, which can easily be covered.
- **Technical Feasibility:** For the front-end components we are using HTML, CSS, JavaScript, EJS technologies, for back-end we are using Nodejs and for database management we are using SQL.
- **Resource and Time Feasibility:** The Portal will require a team of programmers and the essential tools to maintain the continuous and effective use of portal. The entire project is aimed to be completed by one semester.

- **Risk Feasibility:** The donors that are registered on the portal have medical clearance. So the donors that are approached by the patients are certified and legitimate.
- **Social/Legal Feasibility:** The legal formalities for the implementation of portal are in compliance with the privacy and data protection regulations. For the effective use of portal, it shall be spread across a geographical location for its use in it.