Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	13 October 2022
Team ID	PNT2022TMID42563
Project Name	Plasma Donor Application
Maximum Marks	4 Marks

Technical Architecture:

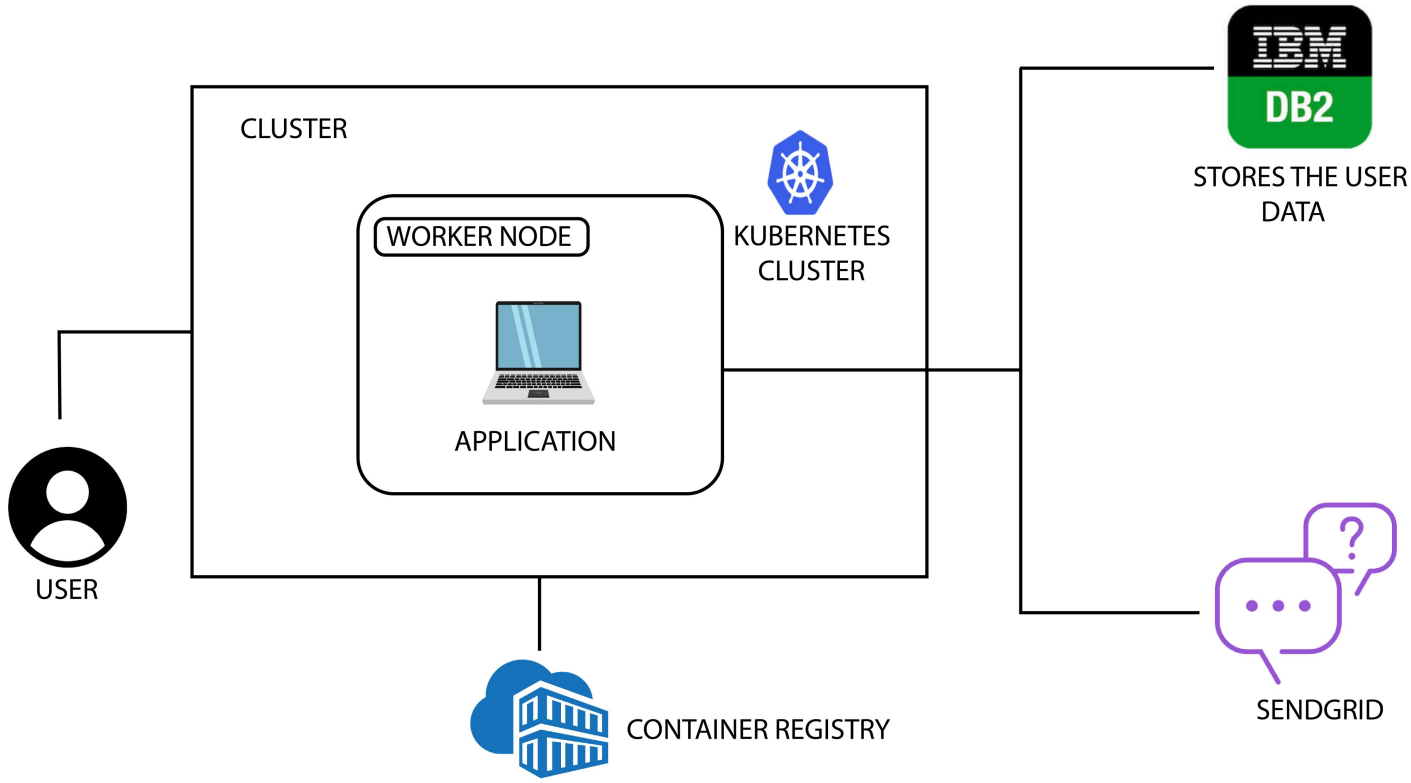

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	Website	Donors may register on the website, and patients can utilise them to publish a request..	HTML, CSS, JavaScript
2.	Docker	Service for storing the private container images	Container Registry
3.	Kubernetes	Maintains a steady condition during the whole process. If any software fails, it will automatically restart the work.	Kubernetes
4.	DB2	Data types include String, Numeric, Date, Time, and Timestamp. auto_ del_ rec obj, auto_ maint Configuration, act_ sortmem_ limit	MySQL
5.	Cloud DB2	A fully maintained cloud database with AI capabilities that keeps our website functioning 24/7.	IBM DB2
6.	SMTP Provider	Sends email alert on a request of plasma by the patients.	SendGrid
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: python-flask Cloud Sever Configuration: IBM cloud	Kubernetes

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Cloud Stack, Eucalyptus. Open Nebula, Docker.	Docker
2.	Security Implementations	Authentication and password administration Accountability for authorising and monitoring the usage of anonymous accounts, as well as for removing them.	Encryptions, Secured Authorization.
3.	Scalable Architecture	To expand our server capacity, memory, or disc space	IBM DB2
4.	Availability	To increase our server's capacity, RAM, or disc space, the administrator must search the database for stock availability.	Docker
5.	Performance	Increase the web page's speed. Data-driven website optimization.	Kubernetes