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

Team ID	PNT2022TMID35253
Project Name	Plasma donor application
Maximum marks	4 Marks

Technical Architecture:
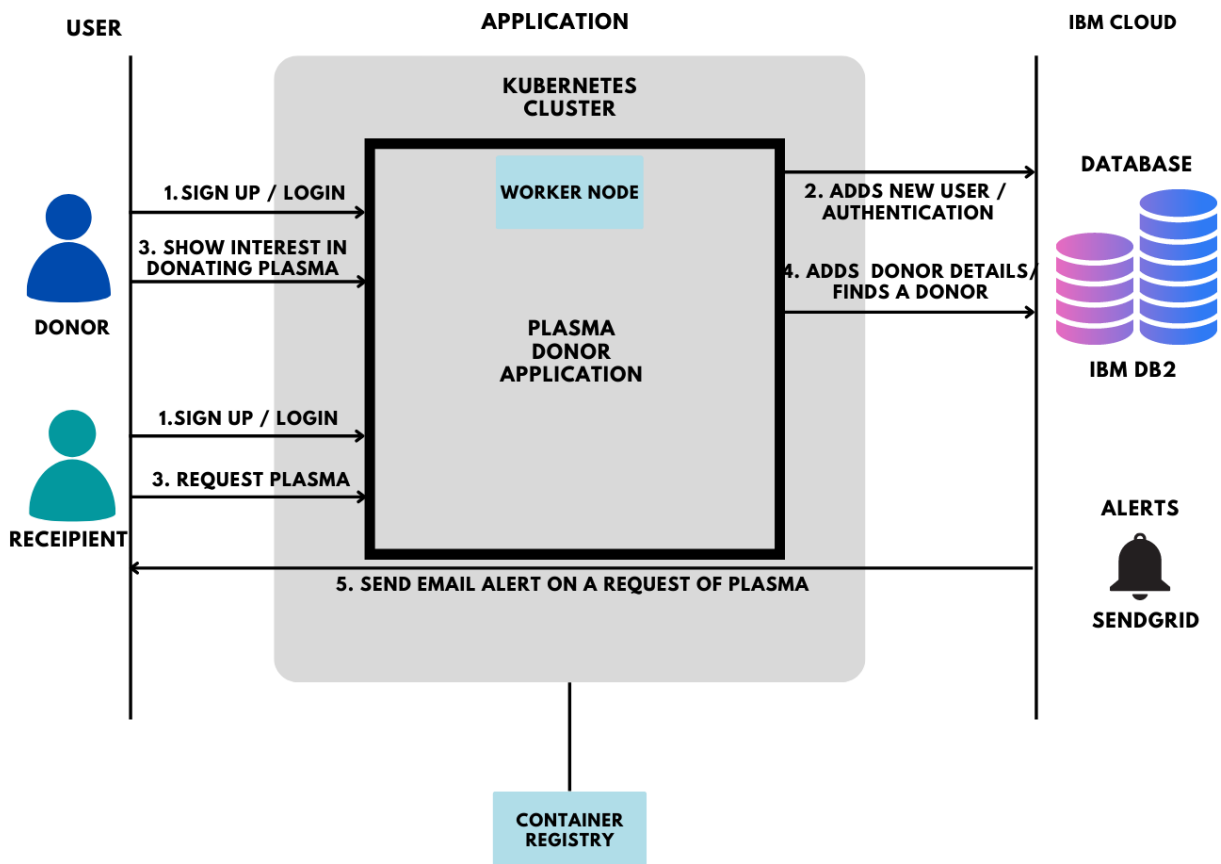
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the Web UI.	HTML, CSS, JavaScript, Python, Flask
2.	Data	Stores, maintains, retrieves the user details.	MySql
3.	Cloud Database	To store the user and the application information	IBM DB2
4.	File Storage	File storage requirements	IBM Block Storage
5.	Email	Send alerts through emails	SendGrid
6.	Chatbot	Assists the user	IBM Watson service
7.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Server	Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Frameworks that don't need any kind of license or permission to use.	Python Flask
2.	Security Implementations	To provide security to user and application information	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	3 – tier architecture	Frontend - HTML, CSS Backend - Python flask Database - IBM DB2
4.	Availability	To balance the load and traffic	IBM Load balancer
5.	Performance	Request and response speed is faster	IBM Content Delivery Network