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

Date	15 October 2022
Team ID	PNT2022TMID29957
Project Name	Project - PLASMA DONOR APPLICATION
Maximum Marks	4 Marks

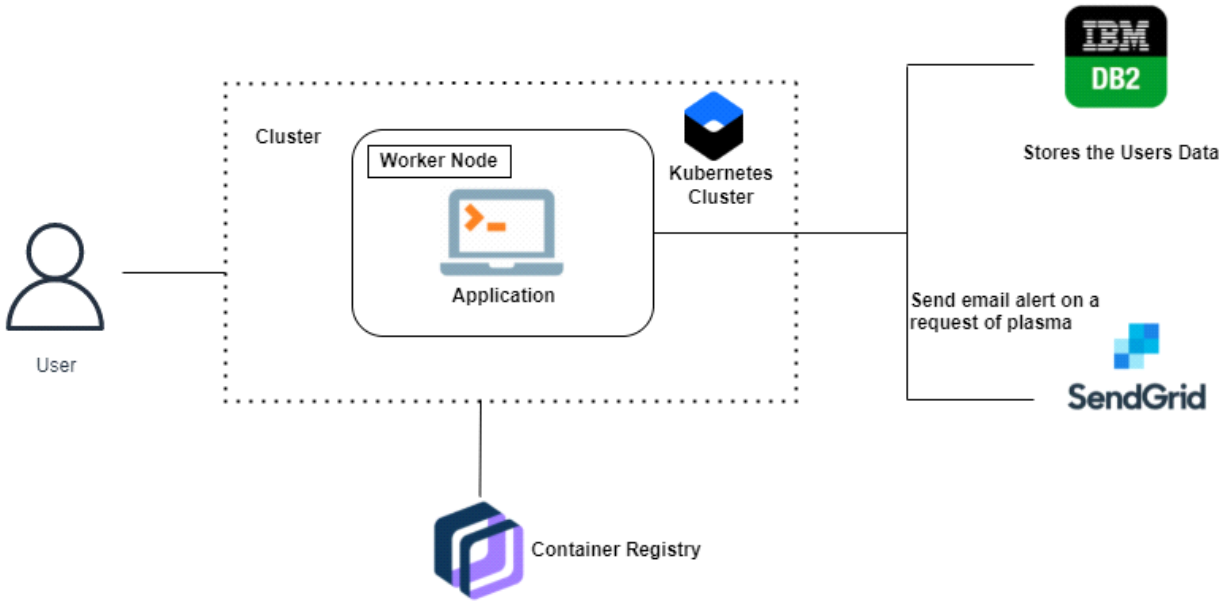
Technical Architecture:

Software Required: python,flask,docker.

System Required:8GB RAM,Intel Core i3,OS-Windows/Linux/MAC ,Laptop or Desktop

During the COVID 19 crisis, the requirement of plasma became a high priority and the donor count has become low. Saving the donor information and helping the needy by notifying the current donors list, would be a helping hand. In regard to the problem faced, an application is to be built which would take the donor details, store them and inform them upon a request.

Technical Architecture Diagram:



Project Workflow:

- The user interacts with the application.
- Registers by giving the details as a donor.
- The database will have all the details and if a user posts a request then the concerned blood group donors will get notified about it.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
•	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
•	Application Logic-1	Logic for a process in the application	Java / Python
•	Application Logic-2	Logic for a process in the application	IBM Watson STT service
•	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
•	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
•	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
•	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
•	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
•	External API-2	Purpose of External API used in the application	Aadhar API, etc.
•	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
•	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology

•	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
•	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
•	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
•	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
•	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used