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

| Date | 03 October 2022 |
|---|---|
| Team ID | PNT2022TMID08712 |
| Project Name | Plasma Donor Application. |
| Maximum Marks | 4 Marks |

**Technical Architecture:**
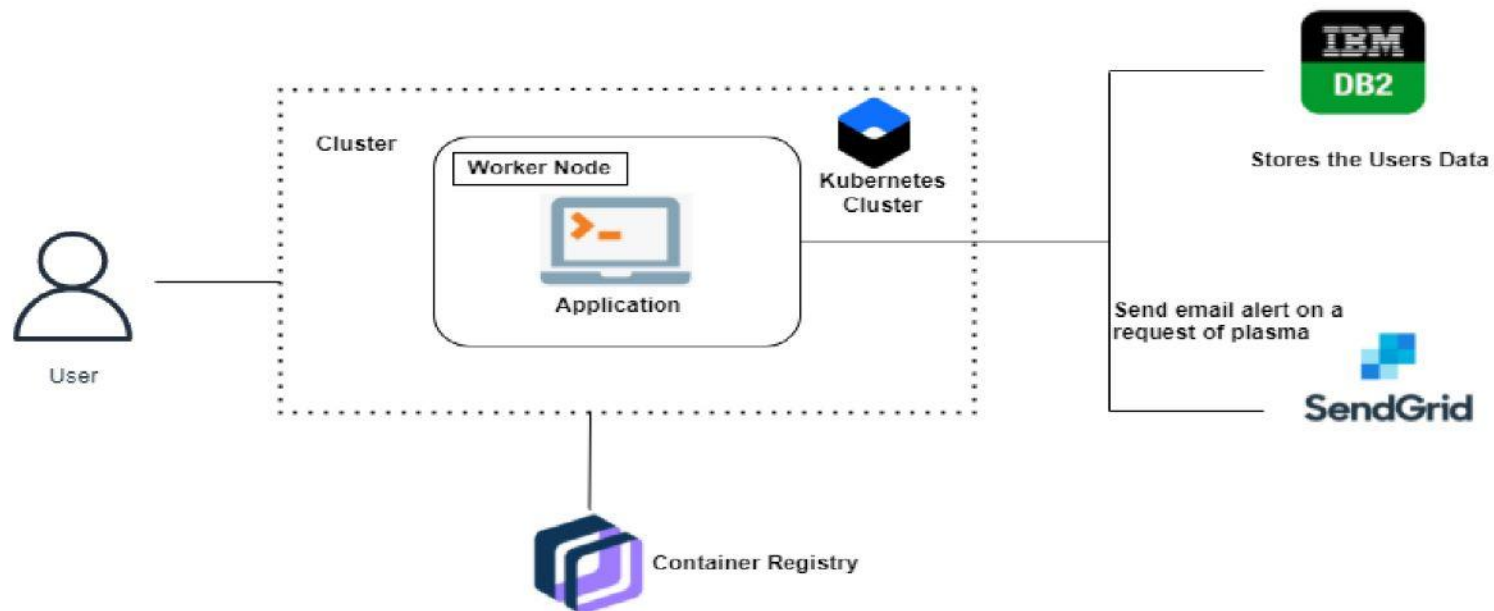
**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | User interacts with application Web UI | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | Framework used for designing the application | Python - Flask |
| 3. | Application Logic-2 | Communication between users and the application via mails. | SendGrid |
| 4. | Application Logic-3 | Storing the details of the users both donors and patients | IBM DB2 |
| 5. | Database | Data Type, Configurations etc. | MySQL, NoSQL, etc. |
| 6. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 7. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API-2 | They make it easier for your developers to store, manage and deploy container images. | Container Registry |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Python – flask is an open-source framework used to develop the application. | Python -flask |
| 2. | Security Implementations | Container registry and Kubernetes Cluster are used for encryption of data. | Container registry and Kubernetes Cluster |
| 3. | Scalable Architecture | Kubernetes Cluster allow containers to run across multiple machines and environments | Kubernetes Cluster |
| 4. | Availability | Kubernetes Cluster provides all time availability. | Kubernetes Cluster |
| 5. | Performance | Docker improves the application performance. | Docker |

**References:**

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**https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d**