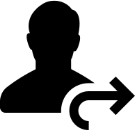
**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

|  |  |
| --- | --- |
| Date | 19 NOVEMBER 2022 |
| Team ID | PNT2022TMID47116 |
| Project Name | Plasma Donor Application |
| Maximum Marks | 4 Marks |

**Technical Architecture:**



Register

for

donation

Stores

the

user’s

data

IBM

DB2

Donar

User

Application

Maintain user’s data

and

database

Request

for

plasma

To send email without having

to

maintain

email

servers

Recipient

Communication

Technology

**Team**

**ID:**

**PNT2022TMID47116**

Framework &

Technologies

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

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | The interaction between the user and application e.g.,Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript / Bootstrap etc. |
| 2. | Application Logic-1 | Framework used for design the application. | Python, Python - Flask |
| 3. | Application Logic-2 | Accessing the cloud and storing the details of the users both donors and patients. | IBM Cloud, IBM DB2 |
| 4. | Application Logic-3 | Docker is an open-source platform for building, deploying, and managing containerized applications. | Docker |
| 5. | Database | Data Type, Configurations etc. | SQL. |
| 6. | Cloud Database | Database Service on Cloud | IBM Cloudant, IBM DB2 etc. |
| 7. | File Storage | File storage requirements | IBM Block Storage or Other  StorageService or Local Filesystem |
| 8. | External API-1 | They make it easier for developers to store, manage and deploy container images. | Container Registry |
| 9. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud | Local, Cloud Foundry, Kubernetes, etc. |

**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 the encryption of data. | Container registry and Kubernetes Cluster |
| 3. | Scalable Architecture | Kubernetes Cluster allows 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 |