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

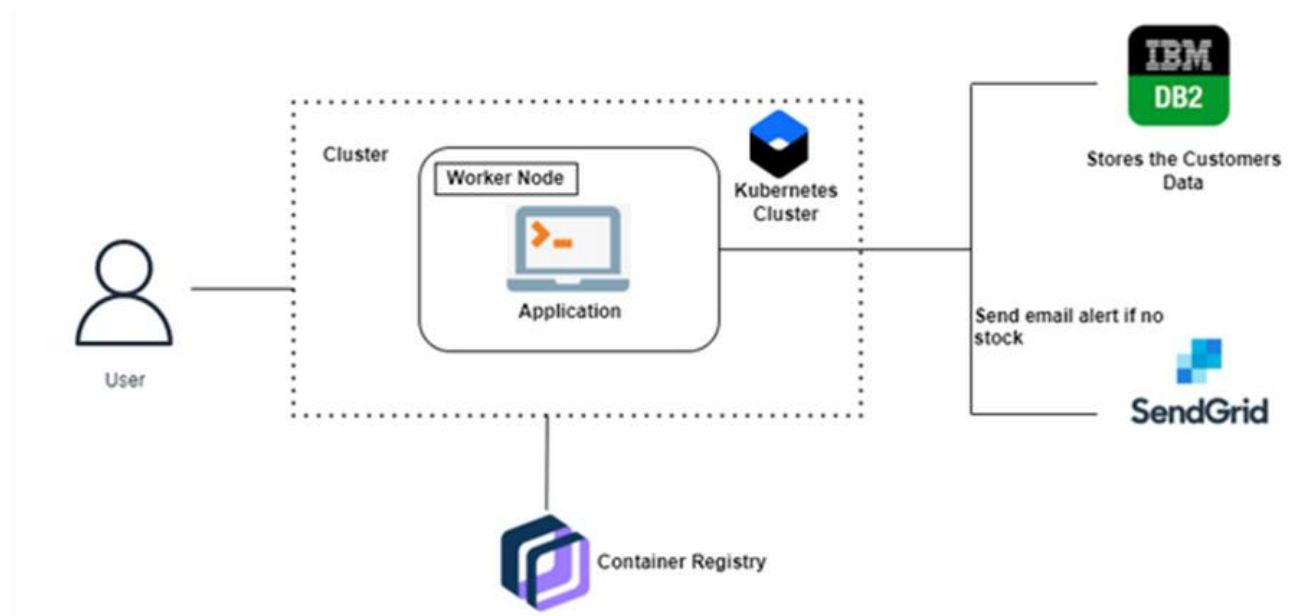| Date | 15th October 2022 |
|---|---|
| Team ID | PNT2022TMID04526 |
| Project Name | Project - Cloud based Web Application for Inventory Management |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

**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 / Angular Js / React Js etc. |
| 2. | Application Logic-1 | Framework used for designing the application. | Java / Python |
| 3. | Application Logic-2 | Accessing the cloud and storing the details of the users both Inventory and User. | IBM Watson STT service |
| 4. | Application Logic-3 | Logic for a process Docker is an open-source platform for building, deploying, and managing containerized applications in the application | IBM Watson Assistant |
| 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-1 | Purpose of External API used They make it easier for developers to store, manage and deploy container images. in the application | IBM Weather API, etc. |
| 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 | Application Deployment on Local System / Cloud | 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 |