Project Design Phase 2

Technology Stack (Architecture & Stack)

| Date | 16 October 2022 |
|---------------|---|
| Team ID | PNT2022TMID46361 |
| Project Name | Inventory Management System for Retailers |
| Maximum Marks | 4 Marks |

Technical Architecture:

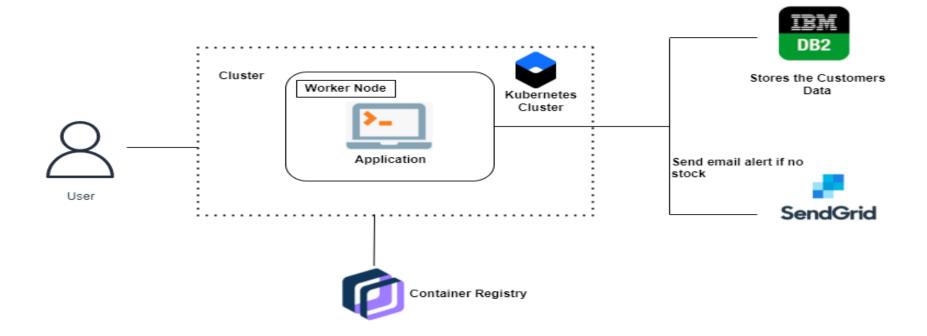


Table-1: Components & Technologies:

| S. No | Component | Description | Technology |
|-------|---------------------------------|--|---|
| 1. | User Interface | How the user interacts with the application e.g. Web UI, Mobile App, etc. | HTML, CSS, JavaScript / Angular JS / React JS etc. |
| 2. | Application Logic-1 | Logic for a process in the application | Java / Python |
| 3. | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
| 4. | Application Logic-3 | Logic for a process 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 in the application | IBM Weather API, etc. |
| 9. | External API-2 | Purpose of External API used in the application | Aadhar API, etc. |
| 10. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
| 11. | 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 |
|-------|--------------------------|---|---|
| 1. | Open-Source Frameworks | List the open-source frameworks used | The technology of the Opensource framework |
| 2. | Security Implementations | List all the security/access controls implemented, use of firewalls, etc. | e.g., SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Microservices) | Technology used |
| 4. | Availability | Justify the availability of applications (e.g., use of load balancers, distributed servers, etc.) | Technology used |
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Technology used |