

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

Date	28 October 2022
Team ID	PNT2022TMID43323
Project Name	Inventory Management System for Retailers
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Order processing during pandemics for offline mode

Reference: <https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/>

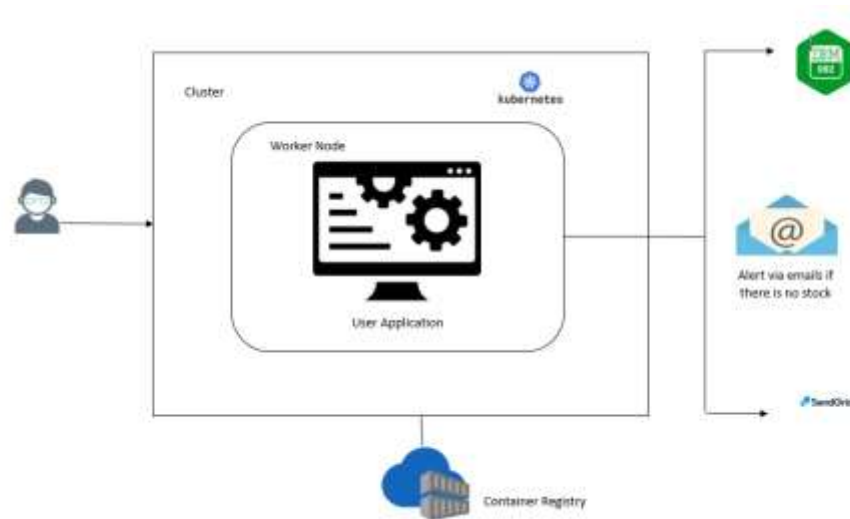


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript, JQuery, Python Flask
2.	Alert and Notification	Send alerts and notifications when there is a low stock count in inventory	SendGrid
3.	App Container	Contains the whole application in a single container	Docker Container, IBM Container Registry
4.	Chatbot	Virtual Assistant on the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	File storage requirements	IBM Cloud Object Storage
8.	Infrastructure	Purpose of Machine Learning Model	Object Recognition Model, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks such as HTML, CSS, JavaScript and Python Flask are used.	HTML, CSS, JavaScript, Bootstrap, Python-Flask
2.	Security Implementations	Access controls implemented are implemented in IBM cloud	IBM Cloud Security
3.	Scalable Architecture	Three – Tier Architecture (MVC)	Docker, Kubernetes Cluster
4.	Availability	Availability of Application	IBM Container Registry, IBM Db2
5.	Performance	Performance of the application, Deployment of application is fast	Docker, Flask, IBM Db2