

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

Date	31 October 2022
Team ID	PNT2022TMID52607
Project Name	Inventory Management System for Retailers
Maximum Marks	4 Marks

Technical Architecture:

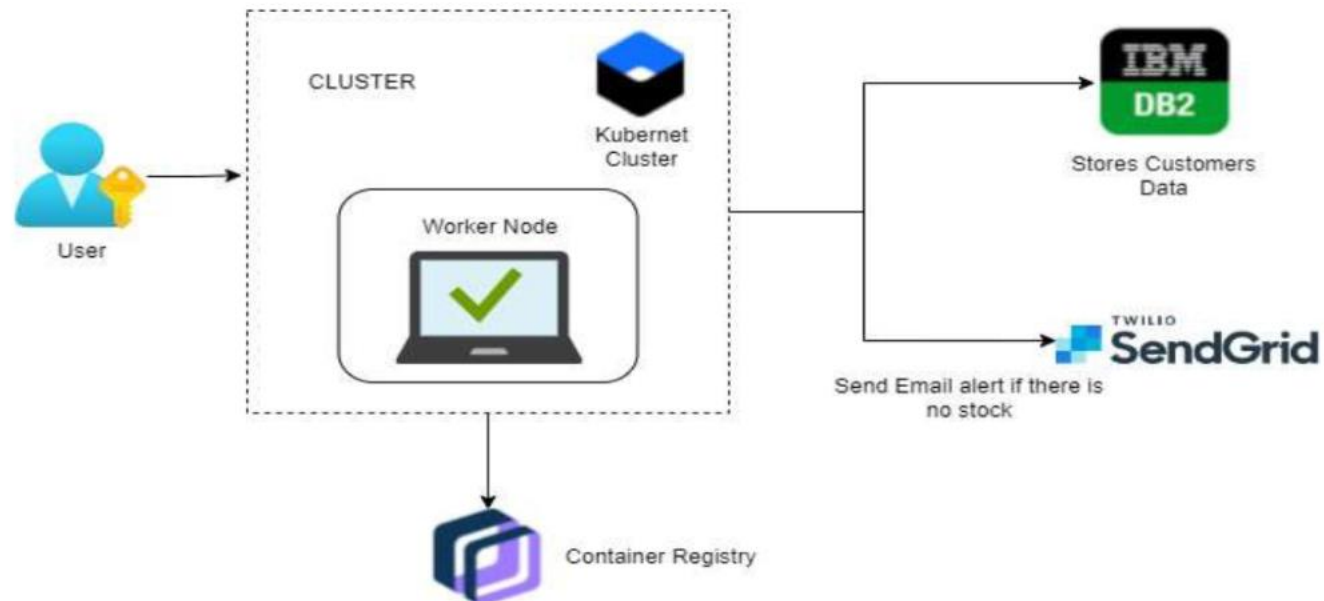


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python Flask
3.	Application Logic-2	Logic for a process in the application	Docker
4.	Application Logic-3	Logic for a process in the application	Kubernetes
5.	Alert and Notification	Alerting the retailers regarding the low stock count of the product	SendGrid
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	App Container	Contain the whole application in a single container.	Docker Container, IBM Container Registry
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: 5000 Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Styling our page, Python flask microframework	Python Flask, Bootstrap
2.	Security Implementations	For securing our cloud data	SHA-256
3.	Scalable Architecture	Three – tier architecture (MVC)	Web pages - HTML, CSS, Javascript

S.No	Characteristics	Description	Technology
			Application server - Python Flask, Docker, Container Registry Database server - IBM DB2
4.	Availability	availability of application	IBM Load Balancer
5.	Performance	5 requests per seconds, Use of Local Machine CacheMemory	IBM Cloud, CDN