PROJECT PHASE 2

TECHNOLOGY STACK

Date	03 October 2022
Team ID	PNT2022TMID10787
Project Name	Inventory Management System for Retailers
Maximum Marks	4 marks

Technical Architecture:

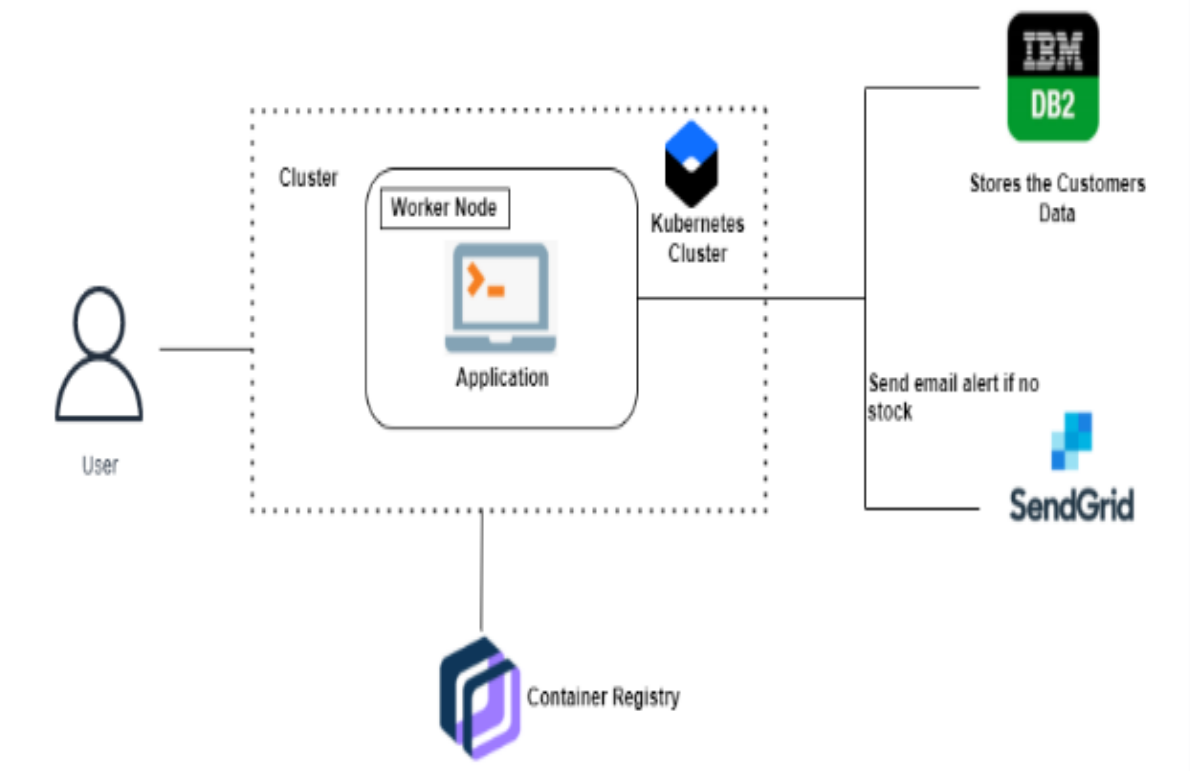

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot, etc.	HTML, CSS, JavaScript, IBM Cloud Object Storage, Python-Flask, Kubernetes, Docker, IBM DB2, IBM Container Registry.
2.	Application Logic	The logic for a process in the application	Python-Flask.
3.	ChatBox	Chatbox for users to access help from a virtual assistant on the application.	IBM Watson Assistant
4.	Cloud Database	Database Service on Cloud	IBM DB2
5.	File Storage	File storage requirements	IBM Cloud Object Storage
6.	App Container	Contain the whole application in a single container.	Docker Container, IBM Container Registry
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: port 5000 Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes.
8.	Send Mail	To send emails when low stock is present in the inventory to retailers.	IBM SendGrid

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	We use HTML, CSS, Bootstrap and Flask as the open source for our application	HTML, CSS, JavaScript, Bootstrap, Python-Flask.
2.	Security Implementations	User log in and authentication are done to provide secure access to their account.	IBM Cloud Security, Cookies.
3.	Scalable Architecture	The system can be scalable easily by using these technologies as to optimize, improve and add new features, allocate sufficient bandwidth to allow more users at a time, etc.	Docker, Kubernetes Cluster
4.	Availability	System availability is high as we make sure the unwanted database access is minimized through SQL and code optimization.	IBM Db2, IBM Container Registry
5.	Performance	Deployment is easy and fast by containerizing the application. Providing fast access time and responsiveness by deploying the application in cloud.	Flask, Docker, IBM Db2.

References:

https://careereducation.smartinternz.com/Student/guided_project_info/48229#