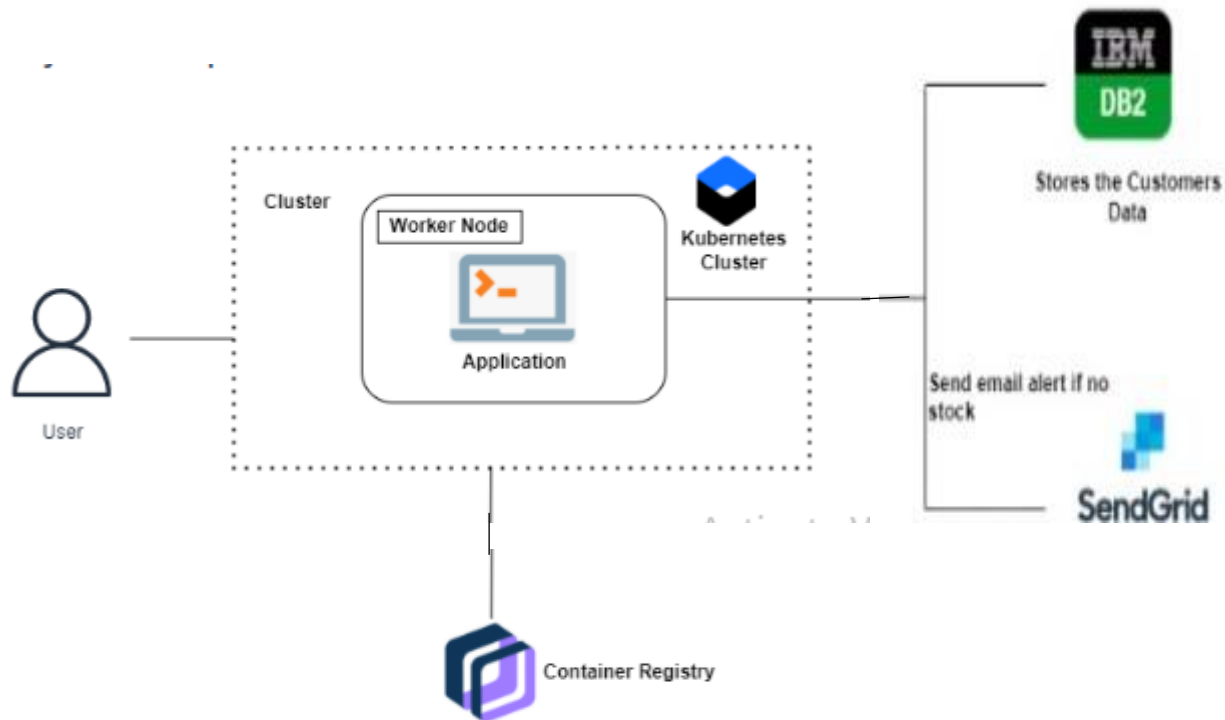


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

Date	03 October 2022
Team ID	PNT2022TMID21282
Project Name	<b>Inventory Management system for Retailers</b>
Maximum Marks	4 Marks

### Technical Architecture:

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



**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	Logic for a process in the application	Python-Flask
3.	Database	Data Type, Configurations etc.	MySQL, etc.
4.	ChatBox	Chatbox for users to access help from a virtual assistant on the application.	IBM Watson Assistant
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	File Storage	File storage requirements	IBM Cloud Object Storage
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 Server Configuration: port 5000 Cloud Server Configuration:	Kubernetes, Local, Cloud Foundry etc.
9.	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.	Python-Flask, HTML, CSS, JavaScript
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	Deploy is easy and fast by containerizing the application. Providing fast access time and responsiveness by deploying the application in cloud.	Flask, Docker, IBM DB2