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

Date	21 October 2022
Team ID	PNT2022TMID27832
Project Name	Project - INVENTORY MANAGEMENT SYSTEM FOR RETAILERS
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable includes the architectural diagram as below and the information as per the table1 & table 2
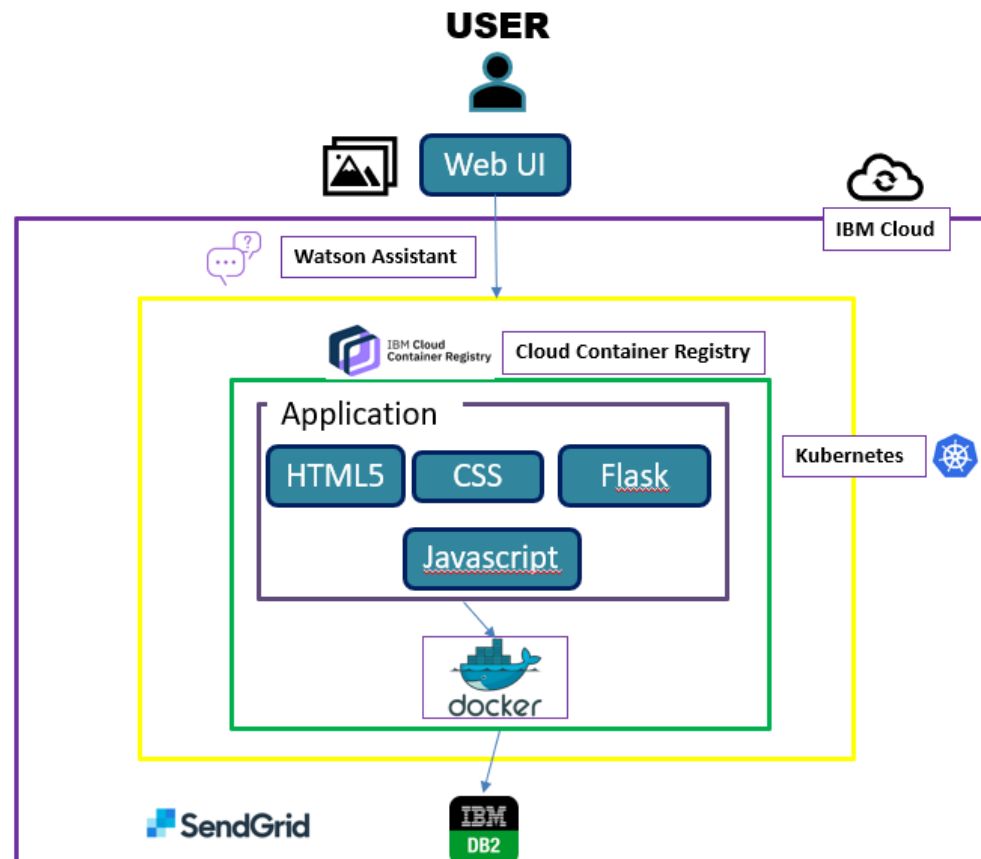
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the application via the Web UI and the Watson Assistant Chatbot.	HTML, CSS, JavaScript,Watson Assistant
2.	User Registration and login	The user has to register in order to login in the web application	HTML,CSS,Flask
3.	Dashboard	Once the user logs in to the system , he/she will be redirected to the dashboard where the user can use the basic functionalities	HTML,CSS,Flask,IBM Watson Assistant ,IBM DB2
4.	Inventory Catalog	A type of data storage that holds inventory data for the products and variants for single or multiple product catalogs, such as creating, adding, updating and deleting functionalities.	HTML, CSS, Flask, IBM DB2
5.	Order Fulfillment	The order placed by the user is delivered based on its availability and then receipt is provided	HTML, CSS, Flask, IBM DB2
5.	Database	The database used for the application makes use of relational format	MySQL.
6.	Cloud Database	Database Services on IBM cloud.	IBM DB2
7.	Object Storage	The data is stored using the Ibm Object Storage in object format	IBM Object Storage
8.	Infrastructure (Server / Cloud)	Application Deployment on IBM Cloud	Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used for developing web applications using python.Flask is a micro web framework written in Python.	Flask,
2.	Scalable Architecture	The 3 tier architecture used, with a separate user interface . application tier and data tier make it easily scalable	Python ,IBM db-2
3.	Availability	The web application is highly available as it is deployed in cloud	IBM cloud
4.	Performance	The performance of the website is improved with caching and security	IBM cloud Internet services