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

Date	18 October 2022
Team ID	PNT2022TMID37719
Project Name	Project – Nutrition Assistant Application
Maximum Marks	4 Marks

Technical Architecture:

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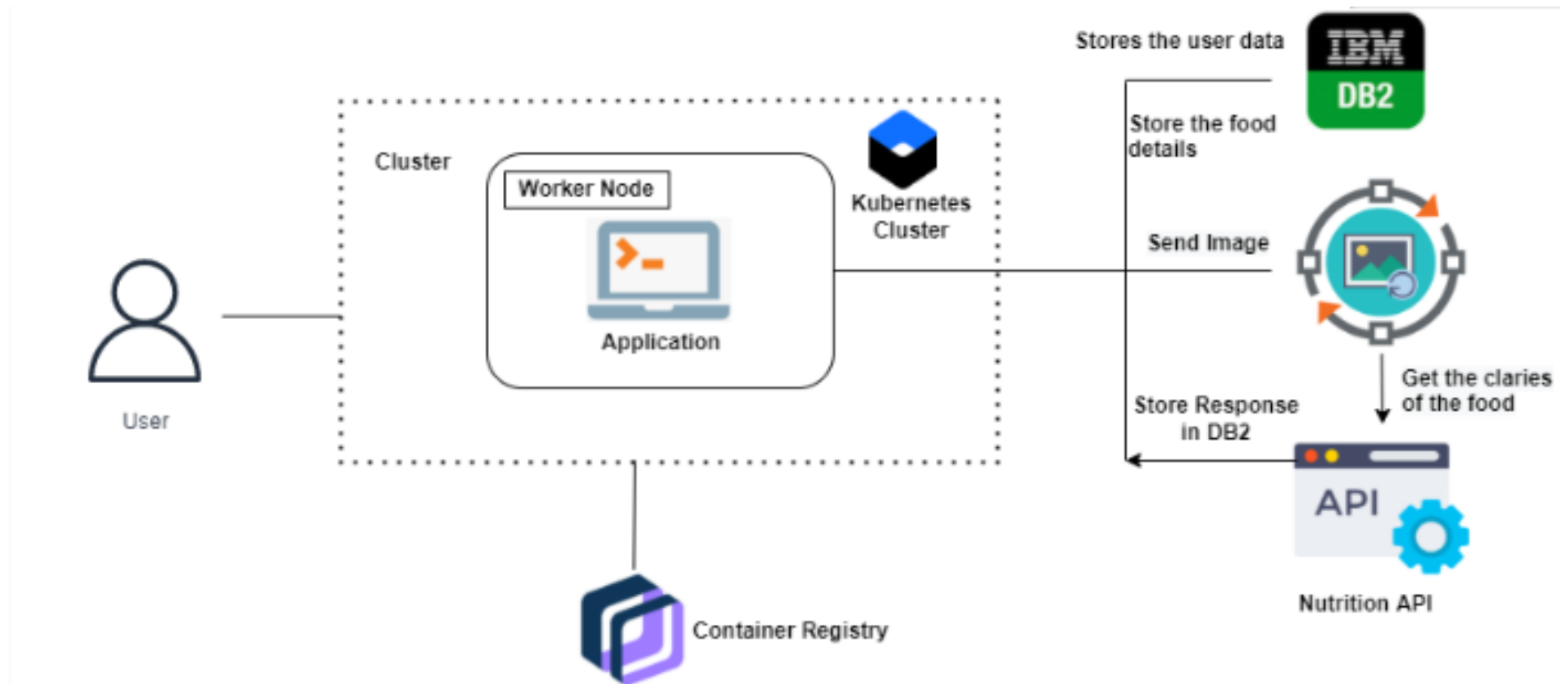
Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application using web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Connection of database and external API's	Python Flask
3.	Application Logic-2	Integration of chatbot with application	IBM Watson Assistant
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	External API-1	This API is used to find the name of the given food which is uploaded by the user	Clarifai-AI driven API
7.	External API-2	This API is used to find the nutrition contents of the uploaded food	Nutrition API
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Kubernetes, Docker

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used for interaction and connection with application	Python Flask
2.	Scalable Architecture	Presenting tier: User interface for login and uploading meal. Application tier: Nutrition API, clarifai API. Database tier: IBM DB2.	HTML, CSS, JS, Flask, Kubernetes, IBM DB2
3.	Availability	Availability can be made by using cloud	Kubernetes, Docker
4.	Performance	Performance of the application can be improved by adding containers in cloud DB	Kubernetes, Docker