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

Date	03 November 2022
Team ID	PNT2022TMID53656
Project Name	Project – Nutrition Assistant Application
Maximum Marks	4 Marks

Technical Architecture:

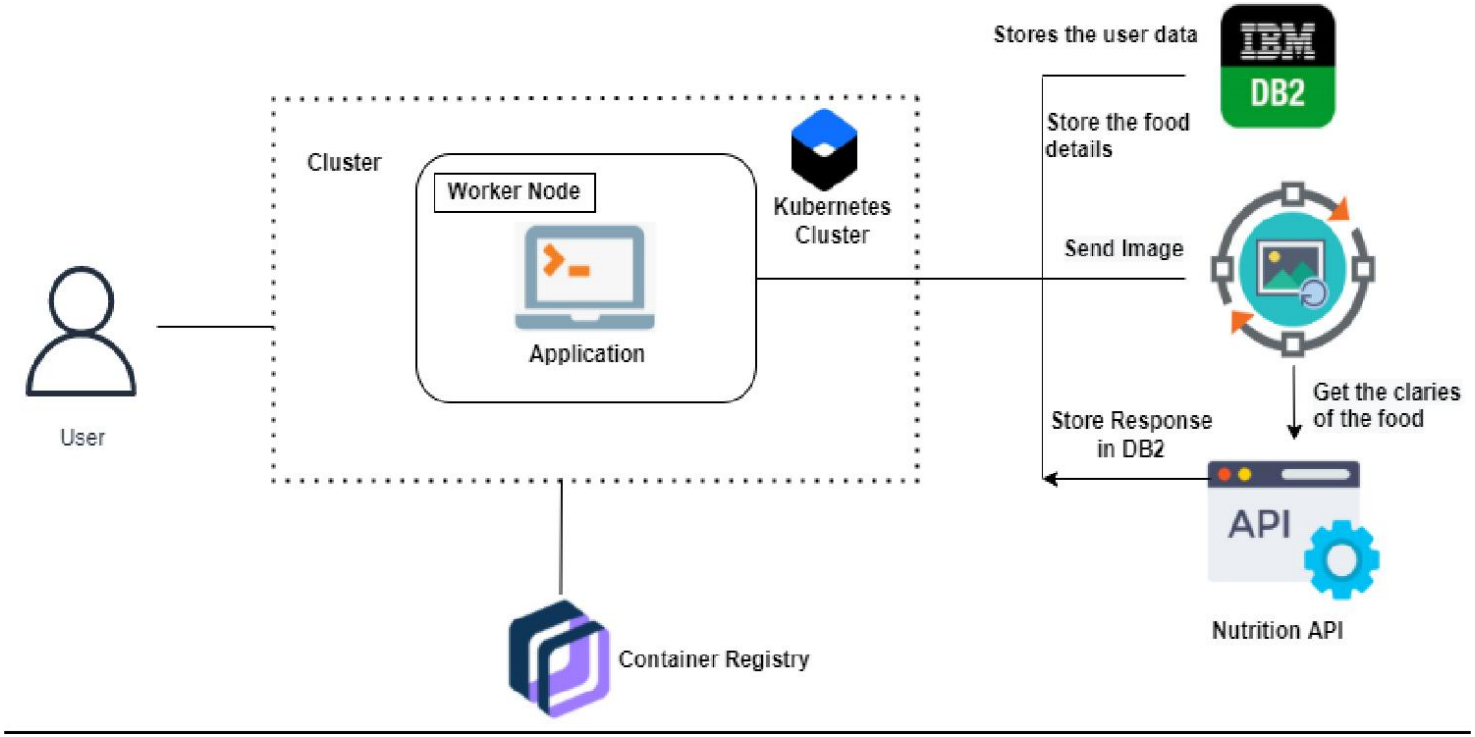

TABLE- 1 : COMPONENTS & TECHNOLOGIES:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js /React Js etc.
2.	Application Logic-1	New users register in the application by giving the genuine contact details which will be stored in the database.	Python, Flask, HTML, CSS
3.	Application Logic-2	Users login into the application by providing the username and password.	IBM Watson STT service
4.	Application Logic-3	Status page gathers the input as images of food and displays the ingredients and nutritional value of the food.	IBM Watson Assistant
5.	Database	String, Integer, Characters, Long	IBM DB2
6.	Cloud Database	IBM DB2	IBM DB2
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Authentication	Flask
9.	External API-2	Displays the ingredients and nutrition value.	Sendgrid
10.	Infrastructure (Server / Cloud)	Application Deployment	Kubernetes

TABLE-2: APPLICATION CHARACTERISTICS:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Docker, Kubernetes
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Docker Content Trust (DCT), Transport Layer Security (TLS)
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier,Micro-services)	Docker
4.	Availability	Use of load balancers	Kubernetes
5.	Performance	Since the Docker and Kubernetes are used in the traffic load will be managed efficiently as a result of which the web application's performance would be much better.	Docker and Kubernetes