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

Date	15 October 2022
Team ID	PNT2022TMID00034
Project Name	Nutrition Assistant Application using Cloud Computing
Maximum Marks	4 Marks

Technical Architecture:

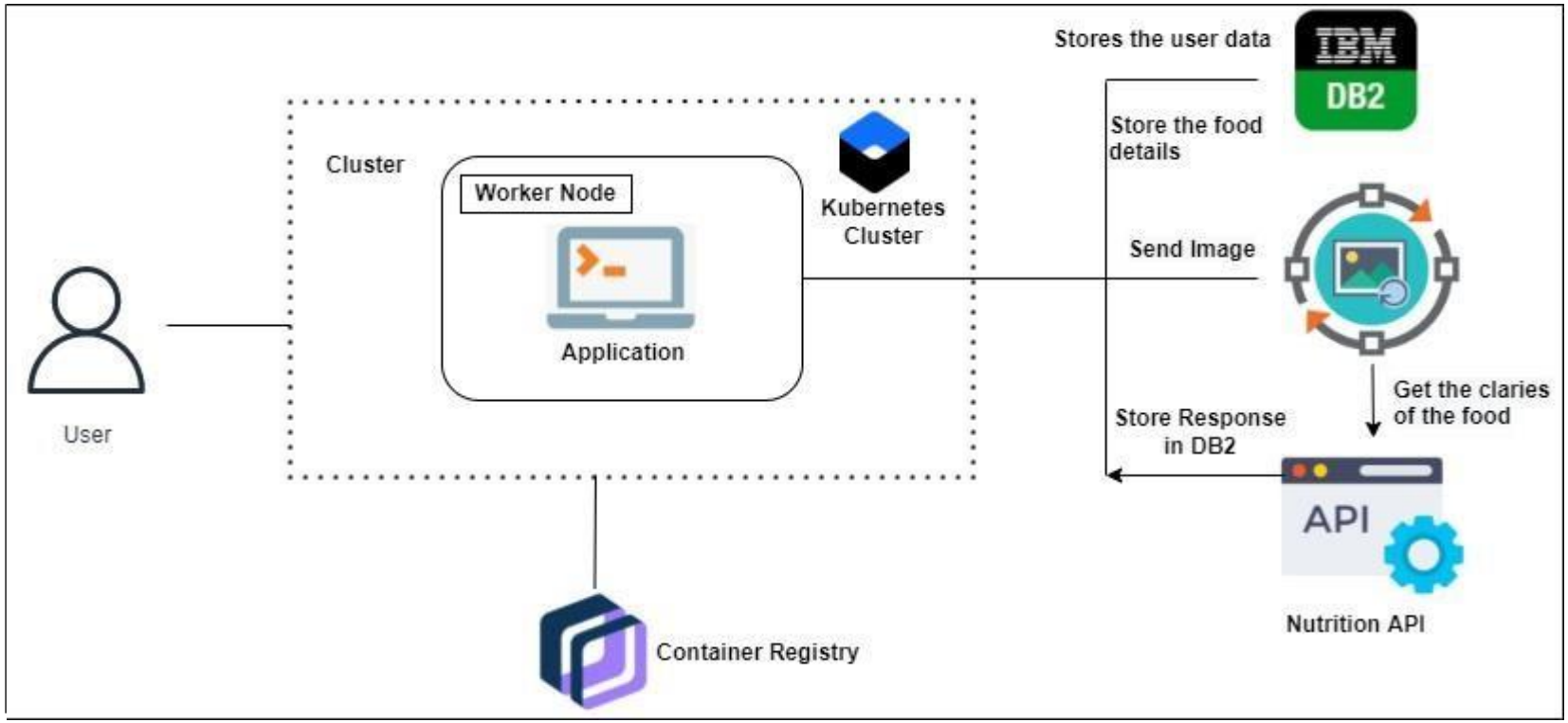

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the application using web-user interface	HTML,CSS,JS
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 the user has uploaded	Clarifai-AI Driven API
7.	External API-2	This API is used to find the nutrition contents of the uploaded food	Nutrition API(Rapid)
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	Presentation 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 using cloud	Kubernetes,Docker
4.	Performance	Performance of the application can be improved by adding containers in Cloud DB	Kubernetes,Docker