PROJECT DESIGN PHASE II

Technology Stack (Architecture & Stack)

Date	18-10-2022
Team-ID	PNT2022TMID02126
Project Name	Nutrition Assistant Application

Technical Architecture:

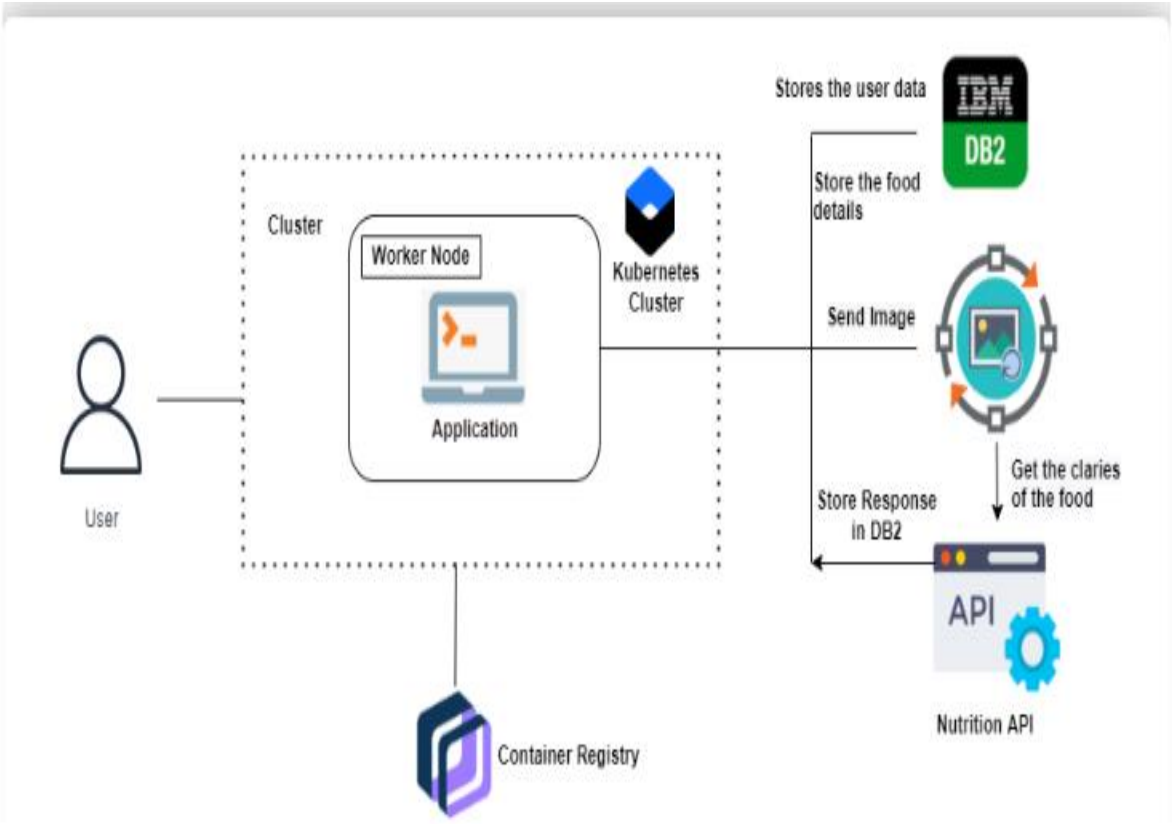

Table-1: Components & Technologies:

S.NO	Component	Description	Technology
1.	User Interface	How the user interacts with the application Eg. Web UI.	HTML, CSS, JavaScript
2.	To get the food nutrition and calorie value	The user will upload the image that contains the food image. Then, the user will then see the food nutrition value that was calculated by the process.	Python, Flask (web Framework), HTML, CSS, JavaScript.
3.	Cloud Database	Database Service Cloud	IBM DB2
4.	Database	Get the user's name, and mail, and store the food calorie value. Data types, Configurations, etc.,	MySQL
5.	External API-1	To predict the image that the user will upload to the upload image page	Clarifai's AI-driven Food detection Model API
6.	External API-2	Food APIs for the nutritional value of the identified food	Food API
7.	File Storage	File Storage Requirements	IBM Block Storage or Other Storage Services.
8.	Infrastructure	Application Deployment on Local System / Cloud: Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes and Docker.

Table-2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1.	Open-Source Frameworks	We are using both the front and back end here to run the web application	Python Flask
2.	Security	List all the Security/access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IBM Controls.
3.	Availability	Justify the availability of the application.	IBM Cloud
4.	Performance	Design consideration for the performance of the application.	IBM Cloud