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NUTRITIONAL ASSISTANT APPLICATION

Technology Stack

Cluster

Worker Node

Cloud Application

User

Stores the uploaded Food image

IBM DB2

Store food details

Sent Image

Store Response in DB2

API

Nutrition API
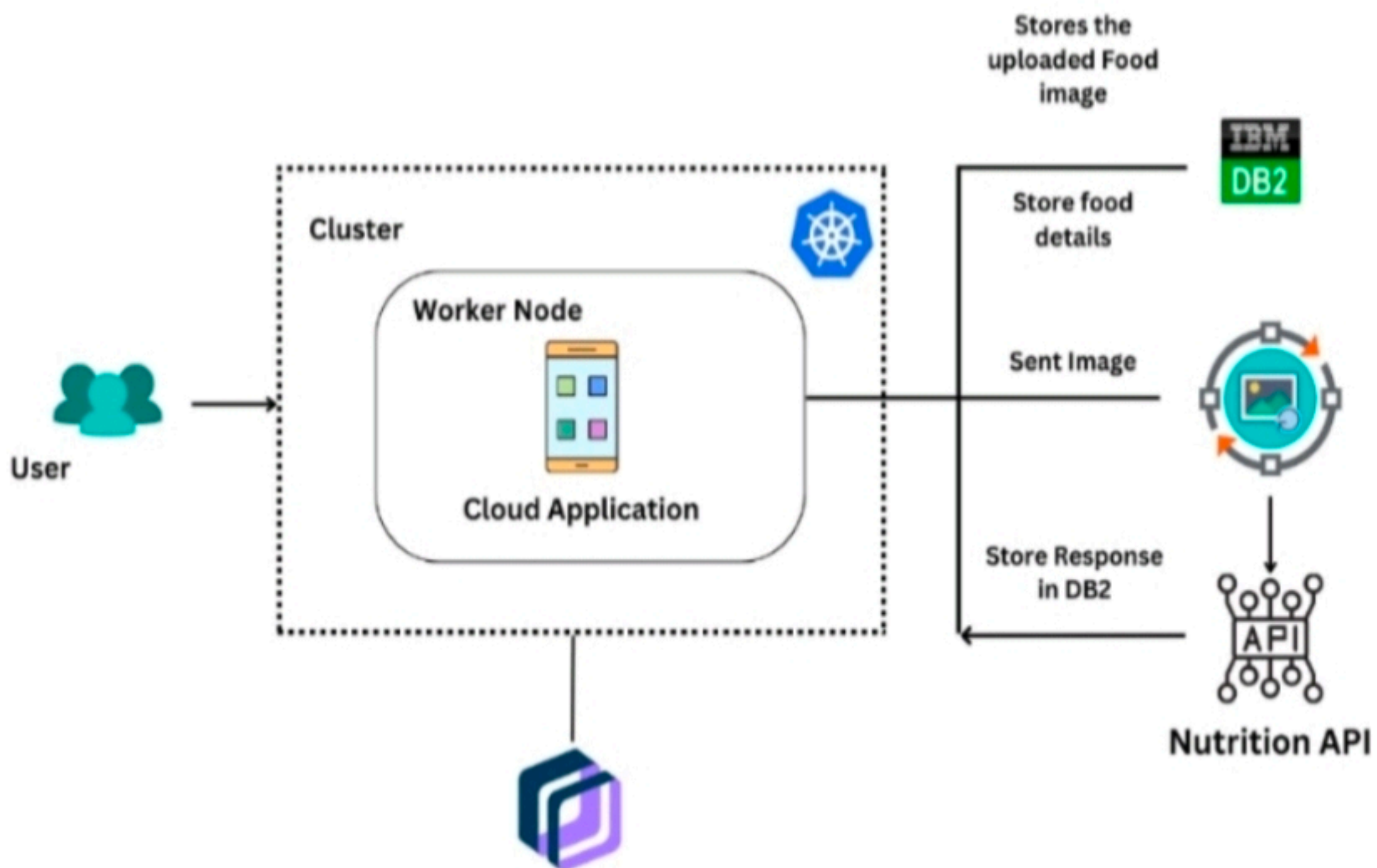
Components & Technologies:

Component	Description	Technology
User Interface	Web UI	HTML, CSS, JavaScript
To get the food nutrition and calorie value	The user will upload the food picture. Then the user will see the food nutrition value the process will compute	Python, Flask (web Framework), HTML, CSS, JavaScript.
Database	Get the user's name, mail and stores the food calories value. Data types: integer, string, Float Number and etc.,	MySQL or PostgreSQL
Cloud Deployment	Through is the application Will compose to the internet	Kubernetes, Docker

External API-1	To predict the image that user will upload in the upload image page	Clarifai's AI-driven Food detection Model API
External API-2	Food API's for to the nutritional value for the identified food	Food API
Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc. Docker.

Table-2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1.	Open-Source Frameworks	We are using both front and back end here to run the web application.	Flask (Microweb framework) Vue.js
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g., SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Presentation tier- HTML/ CSS/ JavaScript