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

Date	15.10.2022
Team ID	PNT2022TMID34668
Project Name	Nutrition Assistant Application
Maximum Marks	4 Marks

Technical Architecture:

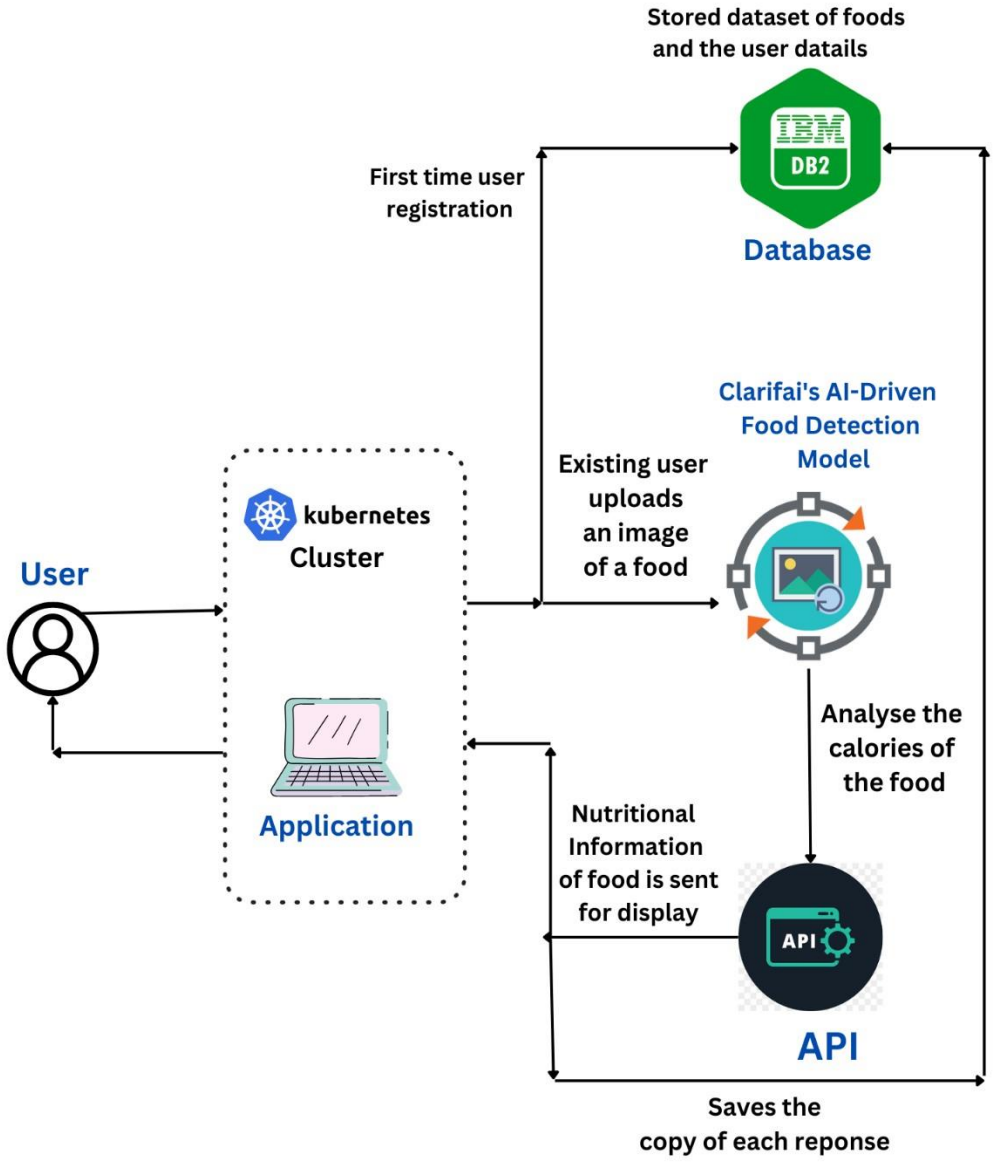

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user can able to see the UI via mobile application.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	The application will have the login/sign up page where the user can login into the home page of the application.	Python
3.	Application Logic-2	The user uploads an image from the gallery or takes a picture by using camera. It will be scanned by the model.	Clarifies AI-Driven Food Detection Model
4.	Application Logic-3	The output will be a list contains the nutritional value of the food.	API
5.	Database	Relational database containing the collection of nutrition of many foods.	MySQL.
6.	Cloud Database	Data about the users (Login credentials) are stored.	IBM DB2
7.	File Storage	File storage requirements	IBM Block Storage / Local Filesystem
8.	Artificial Intelligence Model	To analyse/examine the nutrients of the food.	Clarifies AI-Driven Food Detection Model
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration.	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask ,a web framework in Python is used in the implementation of Nutrition Application System.	Python-Flask
2.	Security Implementations	This application uses Container Registry in IBM cloud so that the user details are kept as more secure and confidential. User have to confirm the login while logging in to avoid any misuse of the credentials	Container Registry, Kubernetes Cluster
3.	Scalable Architecture	The Nutrition Assistant Application is more useful for the people who wanted to maintain a good healthy diet pattern. Such that our application will examine the nutritional value of the food and exposes it.	Container Registry, Kubernetes Cluster
4.	Availability	Docker helps to improve the network management so that the application can be accessed at anytime	Docker , Kubernetes Cluster
5.	Performance	The performance of this application is high and efficient as the network traffic can be easily managed.	Docker , Kubernetes Cluster