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

Date	14 October 2022
Team ID	PNT2022TMID36244
Project Name	Nutrition Assistant Application
Maximum Marks	4 Marks

Technical Architecture:
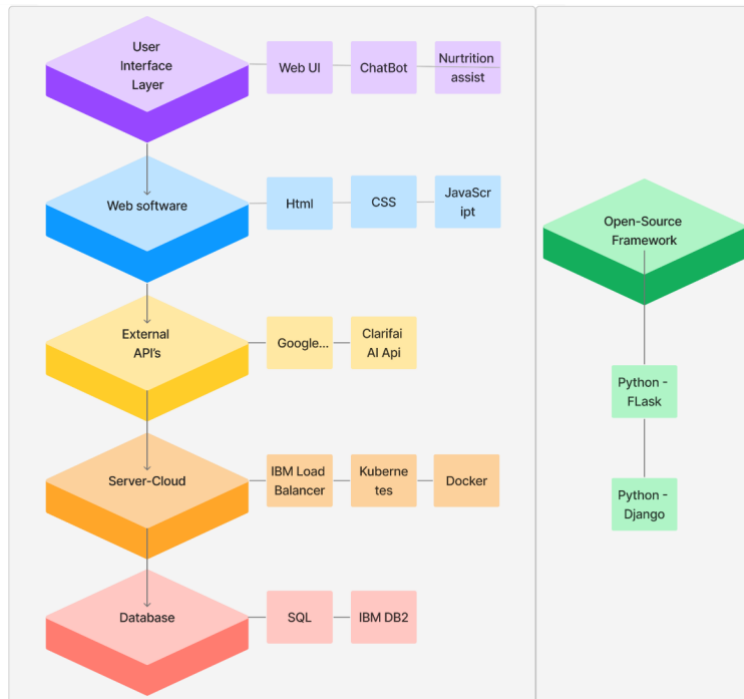
S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask framework is used to frame background process	Python Flask
2.	Security Implementations	Mandatory Access Control (MAC) and Preventative Security Control is used	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	3 – tier architecture	Web Server – HTML,CSS, JavaScript Application Server – Python Flask Database Server – IBM DB2
4.	Availability	Use of Load Balancing to distribute network traffic across servers	IBM Load Balancer

| 5. | Performance | number of requests per sec, use of Cache, use of CDN's | IBM Content Delivery Network |

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI, Chat Bot	HTML, CSS, JavaScript
2.	Application Logic	Logic for a process in the application	Python - Flask
3.	Database	Data Type, Configurations etc.	SQL, MySQL
4.	Cloud Database	Database Service on Cloud	IBM DB2
5.	External API	Purpose of External API used in the application	Google search API, Clarifai AI API
6.	Machine Learning Model	Purpose of Machine Learning Model	Clarifai's AI-Driven Food Detection
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Cloud Server Configuration : IBM_DB2	Kubernetes

Table-2: Application Characteristics: