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

Date	03 October 2022
Team ID	PNT2022TMID35826
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

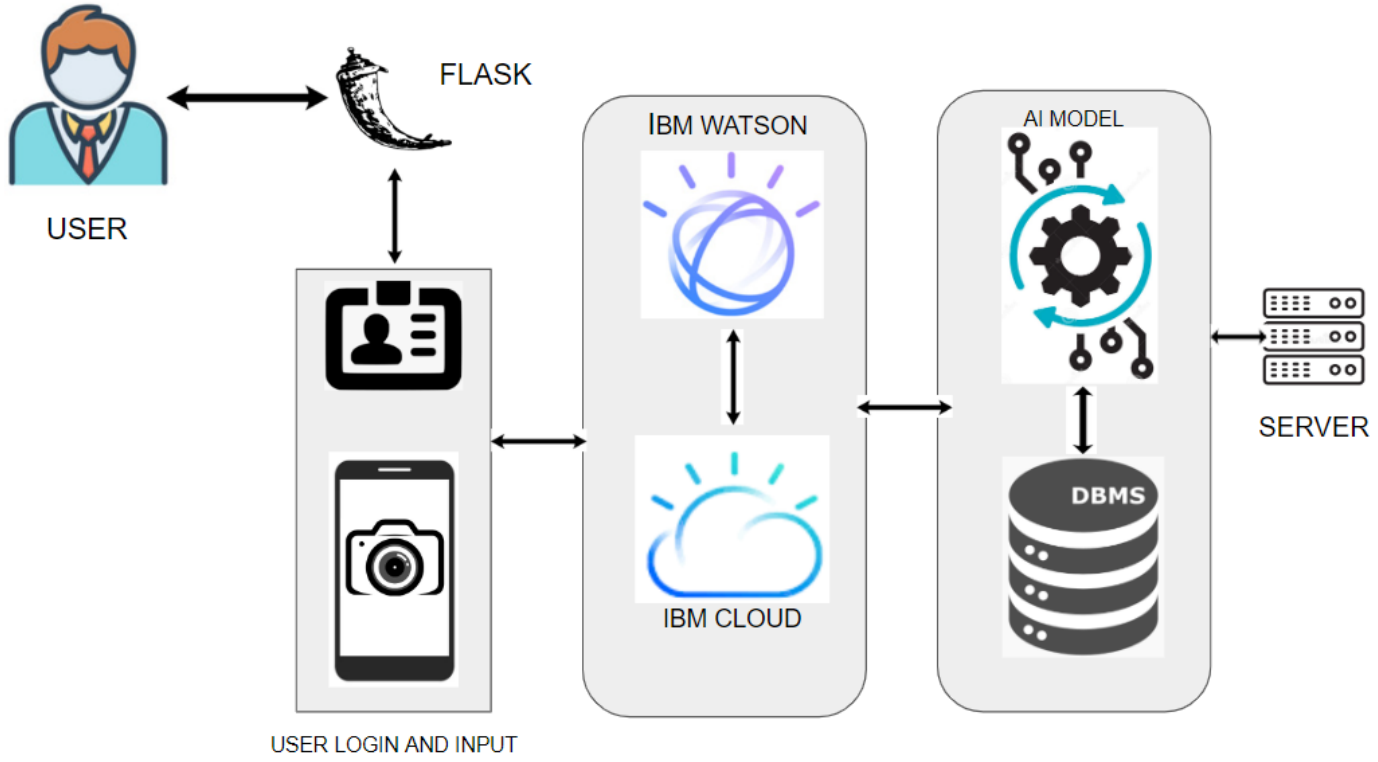

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the web application	HTML, CSS,Python
2.	Application Logic-1	Gets user input	Python
3.	Application Logic-2	gets model output for fruit identification	IBM Watson,Python
4.	Application Logic-3	gets model output for Nutrition analysis	IBM Watson,Python
5.	Database	Data Type-Images and user inputs are stored	MQySL,Js,IBM DB2
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	User details and image inputs are saved in cloud	IBM Block Storage,IBM Cloud
8.	Machine Learning Model	Purpose of AI model is to estimate nutrition content	Object Recognition Model and CNN based model for Nutrition Analysis
9.	Infrastructure (Server / Cloud)	On cloud server will be deploying the AI model using Flask in the webpage	Python Flask

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open source frameworks used as IBM Watson	Technology of Open Source framework IBM Watson
	Security Implementations	IBM Cloud	Certified Watson assistant for Encrypted file systems,Encrypted storage,Key management systems
2.	Scalable Architecture	Web server:Static and dynamic content of the webpage will updated based on requirement Application server:After the basis requirement updation integration will take place Database server:The user inputs will be stored in the database	IBM Watson Assistant, Python,MySQL
3.	Availability	The AI model is available immediately for user	IBM Watson Cloud Assistance
4.	Performance	The IBM Watson performance with great efficiency and accuracy	IBM Watson Assistant