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

Date	15 October 2022
Team ID	PNT2022TMID27826
Project Name	AI-Powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

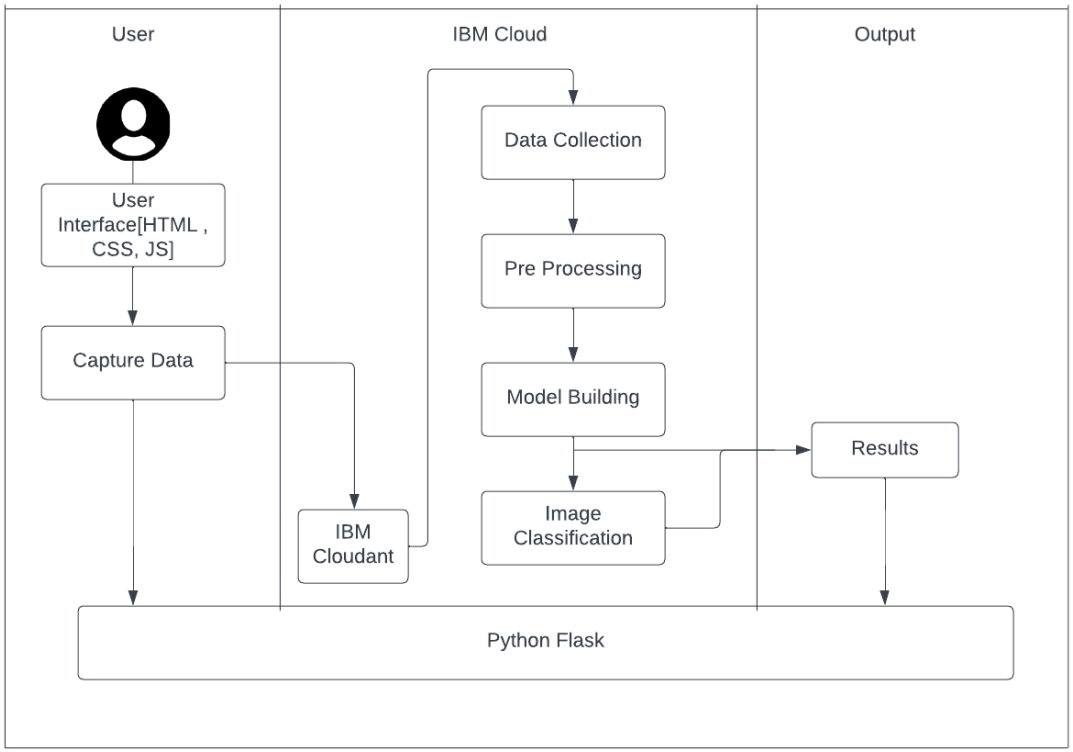

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application Web UI for the nutrition content for the given food.	HTML, CSS, JavaScript
2.	Database	Data Type, Configurations will be stored	MySQL
3.	Cloud Database	Database Service on IBM Cloud	IBM DB2, IBM Cloudant etc.
4.	File Storage	File storage requirements	Storage will be based on Cloud
5.	Machine Learning Model	To classify the image of food and provide the nutrient content of the same.	OPEN CV,MATPLOTLIB, ANN ,CNN, RNN
6.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	IBM CLOUD

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The python open-source software is used to build the model	Python, jQuery etc.
2.	Scalable Architecture	The 3-tier architecture used with a separate user interface, application tier and database tier makes it easily scalable.	Web Server- html,css,javascript Application Server-Python Flask Database Server-IBM Cloud
3.	Availability	The web application is highly available as is it is deployed in cloud.	IBM Cloud
4.	Performance	The application is expected to handle up to 4000 predictions per second	IBM Load Balance