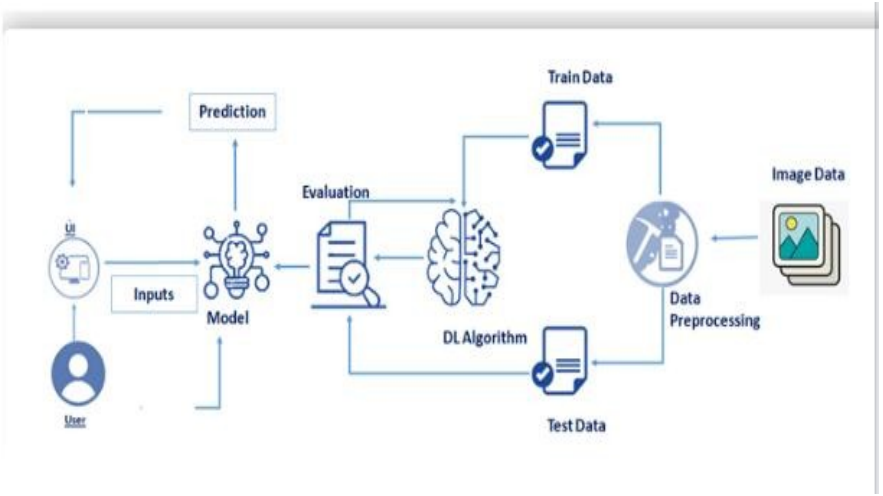
Project Design Phase-II

Technology Stack (Architecture & Stack)

TEAM ID: PNT2022TMID44882
PROJECT NAME: AI-powered Nutrition Analyzer for Fitness Enthusiasts
TEAM LEADER: ABHISHEAK .B.S
TEAM MEMBERS: VARUN KAILASH .P, LOGU .R, SATHISH .P

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2.



Components & Technologies:

S. No	Component	Description	Technology
1.	Application	User interacts with application for the prediction of nutrition evaluation using images or data.	HTML, CSS, JavaScript
2.	Image processing /data processing	User uploads or process the data in our application.	Python
3.	Database	User data, configuration, dataset will be stored.	SQL
4.	Cloud database	Database service on cloud.	IBM Watson cloud
5.	File storage	User requirements will be processed through the file.	Cloud : drive
6.	Machine learning model	Image processing, data visualization and evaluation can be done.	ANN, CNN, RNN
7.	Specifying Alert	Notifying the users on their daily plan.	Send Grid
8.	Infrastructure	Cloud based web application.	Cloud application

Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	It is made freely available code for possible notification and redistribution.	Send Grid, Js, Jupiter (python).
2.	Security Implementations	Request for authentication using encryption.	Encryption, SSL certs
3.	Scalable Architecture	This application must remain resilient in the face of attacks. The behavior of the application must be correct and predictable.	HTML, CSS, JS, PYTHON, FLASK, IBM CLOUD.
4.	Availability	The web dashboard must be available to user's 99.9 percent of the time every month during business hours.	IBM Cloud hosting.
5.	Performance	The application must be scalable enough to support 10,000 visits at the same time while maintaining optimal performance.	IBM Load balance.