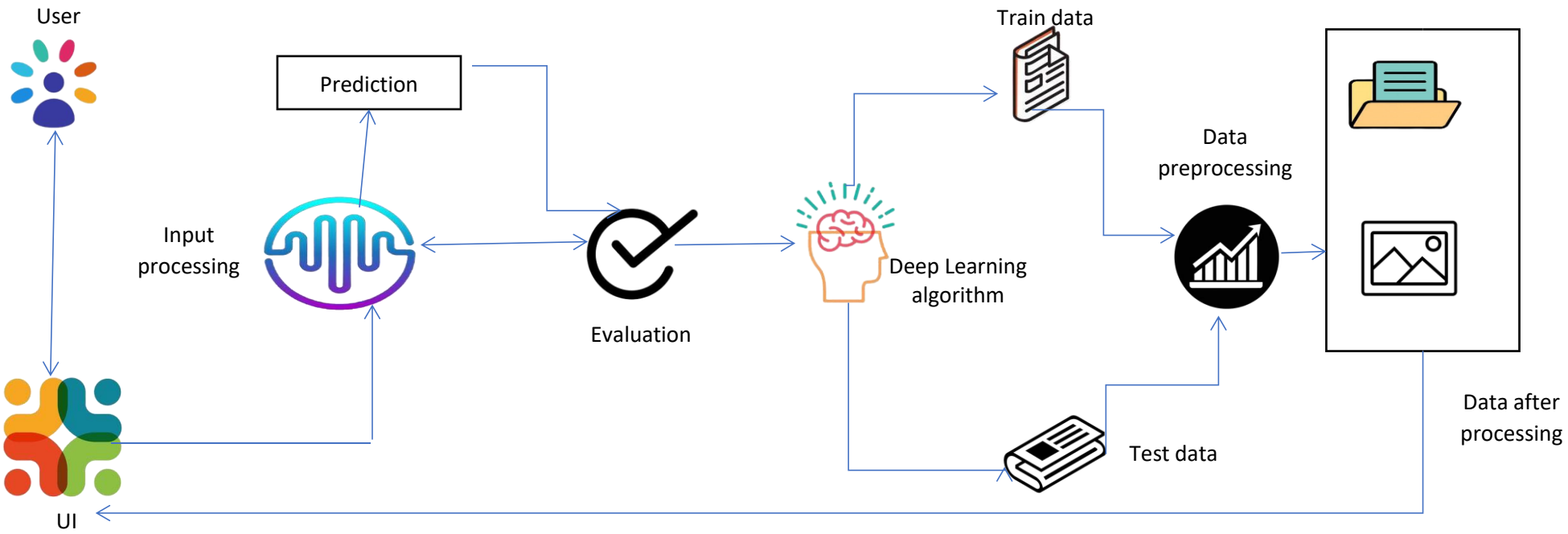
Project Design Phase-II Technology Stack (Architecture & Stack)

Date	13 October 2022
Team ID	PNT2022TMID07099
Project Name	AI-Powered Nutrition Analyzer for fitness enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & 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 evalution can be done.	ANN, CNN, RNN
7.	Specifying Alert	Notifying the users on their daily plan	SendGrid
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	SendGrid , 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 behaviour 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 blance