Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID00728
Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

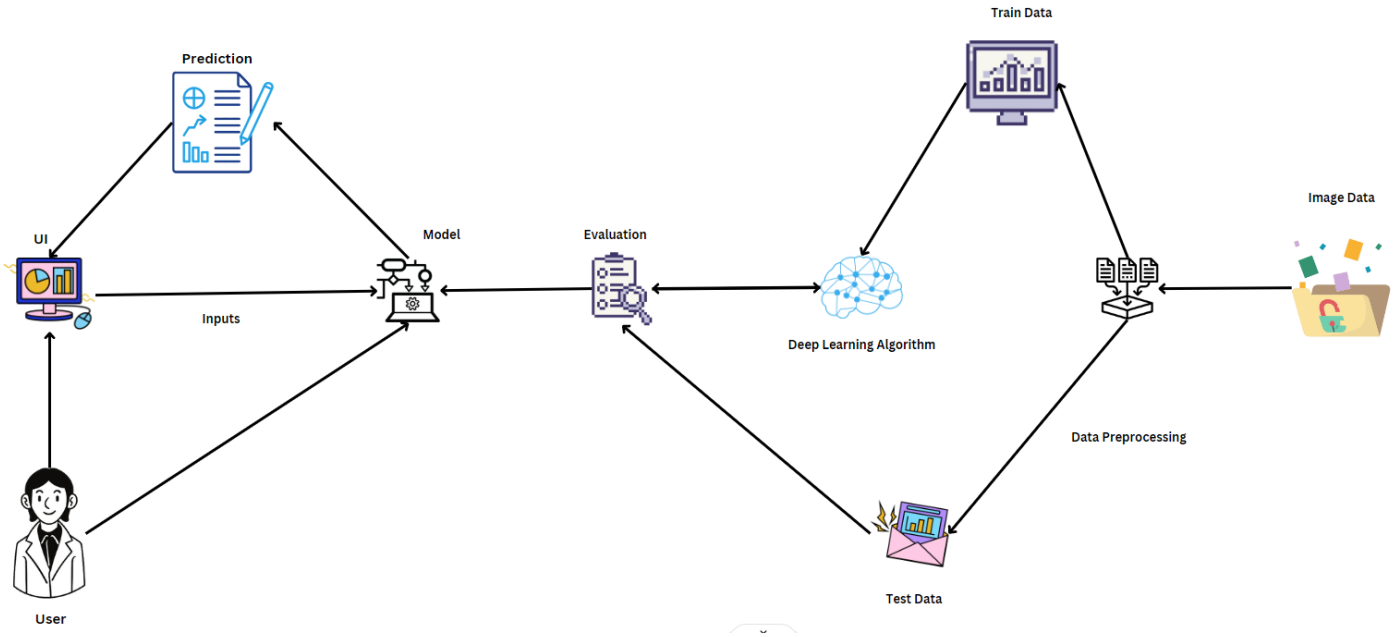

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1	User Interface	Web application	HTML, CSS, JavaScript, Flask
2	Application Logic-1	Launch python application.	Python
3	Application Logic-2	Provide visual input, click on the predict button and see the result on the web page.	HTML,CSS,
4	Database	Distinctive Images of fruits	MySQL
5	Cloud Database		IBM Cloudant
6	External API -1	The Sequential class is used to define linear initializations of network layers which then, collectively, constitute a model.	Sequential API
7	External API -2	Natural language API to extract nutrition data from any text	CalorieNinjas API
8	Machine Learning Model	To Train and Test the dataset to predict the results.	Object recognition Model
9	Infrastructure	Local server configuration: http://127.0.0.1.5000/	Local Server

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	Keras, tensorflow, Flask	Deep Learning Frameworks, Web Frameworks
2	Security Implementations	Does not require any confidential information to run.	NA
3	Availability	Open Source	NA
4	Performance	Lightweight and low resource utilization.	NA