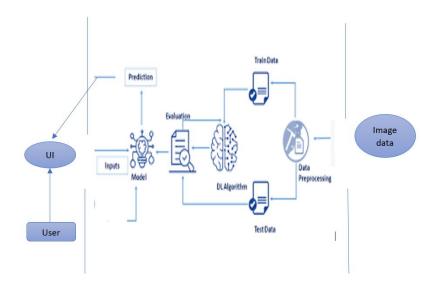
## Project Design Phase-II Technology Stack (Architecture & Stack)

| Date          | 15 October 2022                           |  |
|---------------|---|--|
| Team ID       | PNT2022TMID02289                          |  |
| Project Name  | Al powered Nutrition analyzer for fitness |  |
|               | enthusiasts                               |  |
| Maximum Marks | 4 Marks                                   |  |

## **Technical Architecture:**



**Table-1 : Components & Technologies:** 

| S.No | Component                       | Description   | Technology                             |
|------|---------------------------------|---|--|
| 1.   | User Interface                  | How user interacts with application e.g. Web UI etc.  | HTML, CSS, JavaScript                  |
| 2.   | Application Logic-1             | Logic for a process in the application  | Python                                 |
| 3.   | Application Logic-2             | Logic for a process in the application  | IBM Watson STT service                 |
| 4.   | Application Logic-3             | Logic for a process in the application  | IBM Watson Assistant                   |
| 5.   | Database                        | Data Type, Configurations etc.  | MYSQL, NOSQL etc.                      |
| 6.   | Cloud Database                  | Database Service on Cloud   | IBM DB2, IBM Cloudant etc.             |
| 7.   | File Storage                    | File storage requirements   | Cloud Based Local Filesystem           |
| 8.   | External API-1                  | Purpose of External API used in the application   | IBM Weather API, etc.                  |
| 9.   | External API-2                  | Purpose of External API used in the application   | Nutritics API, etc.                    |
| 10.  | Machine Learning Model          | Purpose of Machine Learning Model   | Image Recognition Model, etc.          |
| 11.  | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud<br>Local Server Configuration:<br>Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc. |

## **Table-2: Application Characteristics:**

| S.No | Characteristics          | Description  | Technology          |
|------|--------------------------|--|---------------------|
| 1.   | Open-Source Frameworks   | List the open-source frameworks used                                       | Bootstrap           |
| 2.   | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA encryption |
| 3.   | Scalable Architecture    | Justify the scalability of architecture (3 – tier, Micro-services)         | 3-Tier              |

| S.No | Characteristics | Description   | Technology     |
|------|-----------------|---|----------------|
| 4.   | Availability    | Justify the availability of application (e.g. use of load balancers, distributed servers etc.)                            | Python, Cloud  |
| 5.   | Performance     | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Al and plugins |