

Project Design Phase-II

Technology Architecture

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| Date | 10 NOEMBER 2022 |
| Team ID | PNT2022TMID42545 |
| Project Name | AI-Powered Nutrition Analyzer For Fit Enthusiasts |
| Maximum Marks | 4 Marks |

Technical Architecture:

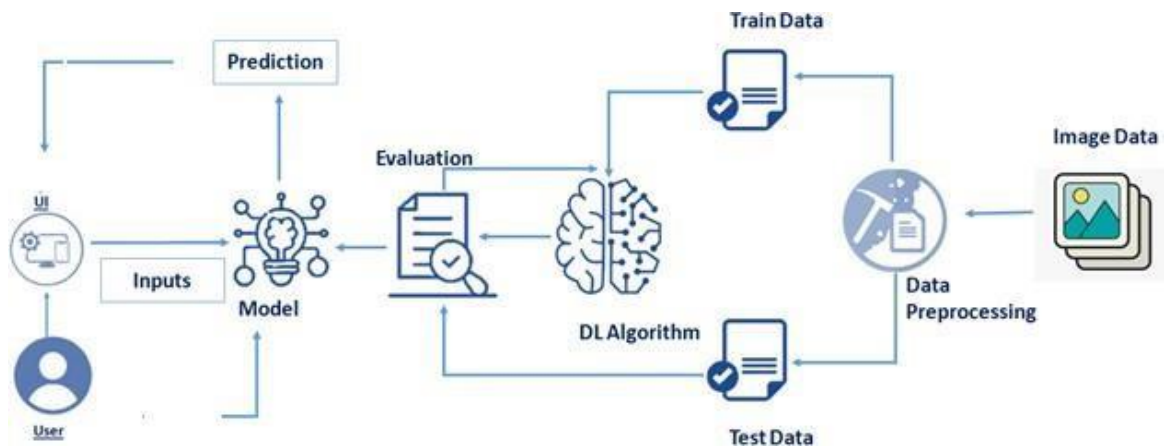


Table 1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|---------------------|---|------------------------|
| 1. | User Interface | Predicts the user interaction wit application | HTML, CSS, Javascript |
| 2. | Application Logic-1 | A fitness tool is used for analysing the nutrient | Python |
| 3. | Application Logic-2 | IBM Watson Health is a digital tool that helps the healthcare services through AI | IBM Watson STT service |
| 4. | Database | Datatype, Configurations, Data, etc., | MSSQL |
| 5. | Cloud Database | Cloud Database Service | IBM DB2, IBM Cloudant |

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|-----|---------------------------------|--|---|
| 6. | Notification | Nutrition notification will be Sent from the server | Grid |
| 7. | File Storage | File storage requirements | IBM Block Storage or Other Storage Services |
| 8. | External API | External API is used in the Application | IBM Weather API, Aadhar API |
| 9. | Machine Learning Model | Detect and identify the image and objects | Python Colab |
| 10. | Infrastructure (Server / Cloud) | Application Deployment, Local Server Configuration, Cloud Server Configuration | Local, Cloud Foundry, Kubernetes, etc., |

Table 2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|-------------------------|
| 1. | Open-Source Frameworks | Flask framework | Artificial Intelligence |
| 2. | Security Implementations | Request authentication, Security controls ,etc., | Encryption, firewalls |
| 3. | Scalable Architecture | Supports high workloads | Artificial Intelligence |
| 4. | Availability | Use of load, distributed Servers | Artificial Intelligence |
| 5. | Performance | The application predicts the image up to 6000 per second | Artificial Intelligence |