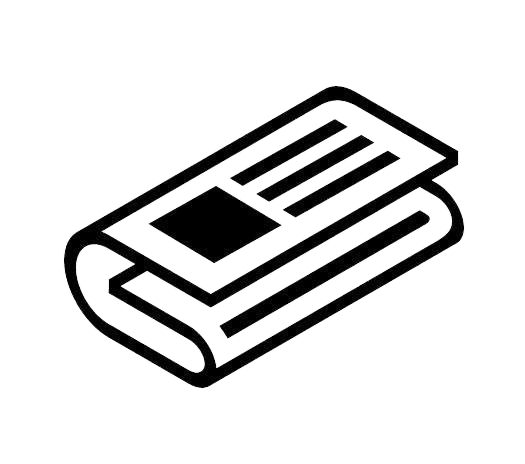
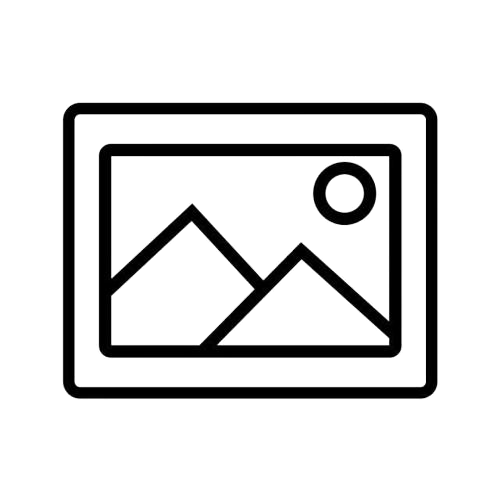
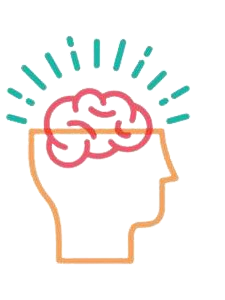
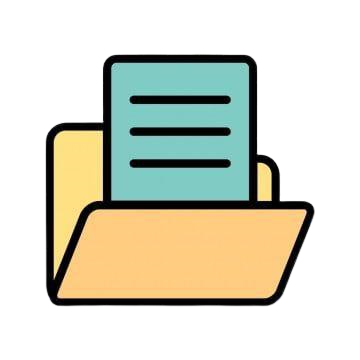
**Project Design Phase-II Technology Stack (Architecture & Stack)**



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| Team ID | PNT2022TMID25633 |
| Project Name | AI-Powered Nutrition Analyzer for fitness enthusiasts |

**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 |