**Project Design Phase – II**

**Technology Architecture**

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| --- | --- |
| Date | 04-11-2022 |
| Team ID | PNT2022TMID13897 |
| 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



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

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript / Angular Js etc. |
| 2. | Application Logic-1 | Logic for a process in the application | Java / 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 | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API-1 | Converts from one language to another | Natural Language Processing |
| 9. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
| 10. | Infrastructure (Server / AI) | Application Deployment on Local System / AI Local Server Configuration  AI Server Configuration | Local, Kubernetes, etc. |

**Table 2: Application Characteristics:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1. | Open-Source Frameworks | Simplifies the complexity of deep learning algorithms. It helps to upload data and train the model. | TensorFlow |
| 2. | Security Implementations | The system authenticates all the users with their unique usernames and password. | JWT(JSON Web Tokens) |
| 3. | Scalable Architecture | The system can adapt and grow easily with ease. | AI Technologies |
| 4. | Availability | The information is available only for the registered users, and user information is available only to that particular user. | NA |
| 5. | Performance | The system performs well even when many users access it at the same time | Google Colab Pro |