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| --- | --- |
| Date | 04 November 2022 |
| Team ID | PNT2022TMID22082 |
| Project Name | Nutrition Assistant Application |
| Maximum Marks | 4 Marks |

**Table-1 :**

**Components & Technologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | User engages web user interface | HTML, CSS, JavaScript |
| 2. | Application Logic-1 | Connect to external APIs and databases. | Python Flask |
| 3. | Application Logic-2 | BMI calculation for the user | BMI Algorithm |
| 4. | Database | Data Type, Configurations etc. | MySQL |
| 5. | Cloud Database | Cloud-based database service used to maintain diet history and save user information for login and registration | IBM DB2 |
| 6. | External API-1 | To get the name of the food for which the supplied image is intended, utilise this API. | Clarifai AI-Driven API |
| 7. | External API-2 | This API is used to discover the food's recipe and nutritional information. | Nutrition API ( Rapid API) |
| 8. | Infrastructure | Application deployment for scalability and good performance | Kubernetes |

**Table-2:**

**Application Characteristics:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1. | Open-Source Frameworks | connecting a database to an external API using flask | Python flask |
| 2. | Security Implementations | safe database access is made available | SSH |
| 3. | Scalable Architecture | User interface for logging in and uploading food photographs.  Clarifai API and Nutrition API are application tiers.  Tier 1 database: IBM cloud DB2. | HTML, CSS, JavaScript, Flask, Kubernetes, IBM DB2 |
| 4. | Availability | Using clusters increases availability. The Kubernetes cluster can be used to accomplish this. | Kubernetes |
| 5. | Performance | Caching and adding master nodes can help the application run faster. | Kubernetes |