**Technology Stack**

**Architecture**

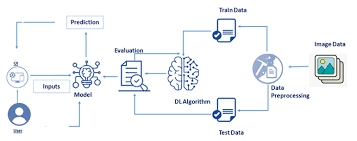
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**Team Member: Murali**

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**Technical Architecture:**



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

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N O** | **Component** | **Description** | **Technology** |
| i | User Interface | Web UI | HTML, CSS, JavaScript |
| ii | Backend | Data transfer and retrieval | Python |
| iii | Cloud Database | Database Service on Cloud | IBM DB2 |
| iv | Watson ChatBot | Navigates user to necessary pages | IBM Watson Assistant |
| v | File Storage | File storage requirements | IBM Object Storage, Container registry |
| vi | Cloud Deployment | Through is the application Will compose to the internet | Kubernetes, Docker |
| vii | External API-1 | To alert users about various user set reminders. | SendGrid |
| viii | External API-2 | Food API’s to identify the nutritional value of the food | Food API |
| ix | Infrastructure (Server / Cloud) | Application Deployment on Cloud | IBM Kubernetes Container and Docker Container Image |

**Table-2: Application Characteristics:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N O** | **Characteristics** | **Description** | **Technology** |
| 1 | Open-Source Frameworks | We are using flask for backend and connect with external services and databases. | Flask (Microweb framework) |
| 2 | Security Implementations | Encrypting user data and password with strong encryption algorithm and using inbuilt ibm security services. | SHA-256, Encryptions, IAM Controls.. |
| 3 | Scalable Architecture | Justify the scalability of architecture (Micro-services) | HTML, CSS,  JavaScript,Flask. |
| 4 | Availability | Kubernetes services. Deploying the application with Kubernetes cluster to make applications available across the globe on the internet. | Kubernetes Cluster, IBM  DB2, IBM Cloud Object  Storage |
| 5 | Performance | Can handle required amount of  requests per second | IBM container registery |