**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| --- | --- |
| Date | 03 October 2022 |
| Team ID | PNT2022TMID17812 |
| Project Name | Project – Technology Stack |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

### Example: Gas Leakage Monitoring & Alerting System For Industries

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

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
|  | User Interface | Web UI, Mobile App | HTML, CSS, JavaScript / Angular Js / React Js etc. |
|  | Application Logic-1 | Logic for a process in the application | Java / Python |
|  | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
|  | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
|  | Database | Data Type | MySQL, NoSQL |
|  | Cloud Database | Database Service on Cloud | IBM Cloudant etc. |
|  | File Storage | File storage requirements | IBM Block Storage |
|  | External API-1 | Purpose of External API used in the application | IBM Weather API |
|  | External API-2 | Purpose of External API used in the application | Aadhar API |
|  | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
|  | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud  Local Server Configuration:  Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc. |

**Table-2: Application Characteristics:**

| **S.No** | **Characteristics** | **Description** | **Technology** |
| --- | --- | --- | --- |
|  | Open-Source Frameworks | The open-source frameworks used | Brave |
|  | Security Implementations | The security / access controls implemented, use of firewalls etc. | IBM cloud Encryptions |
|  | Scalable Architecture | The scalability of architecture (3 – tier, Micro-services) | IBM cloud architecture |
|  | Availability | The availability of application (e.g. use of load balancers, distributed servers etc.) | Web application can even be used by the workers in the industry |
|  | Performance | The performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc. | Since the web application is high efficient, it can be used by the workers irrespective of time. |