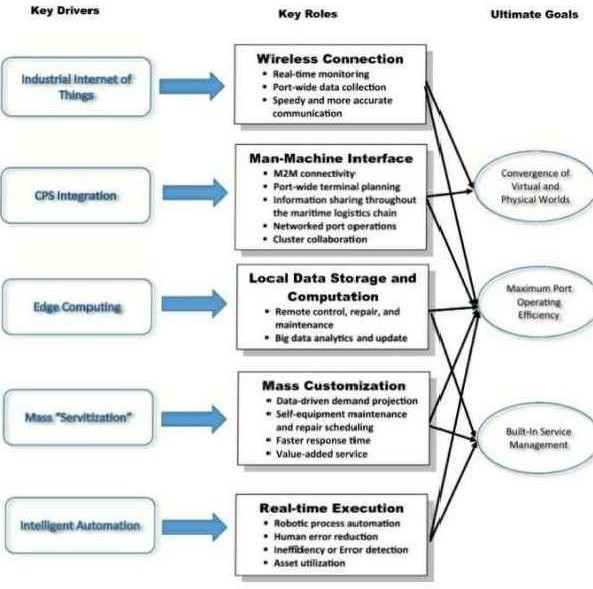
**Project Design Phase-II Technology Stack (Architecture & Stack)**

|  |  |
| --- | --- |
| **Date** | **16 November 2022** |
| **Team ID** | **PNT2022TMID08099** |
| **Project Name** | **Project - Traffic and Capacity analytics for major**  **ports** |
| **Maximum Marks** | **4 Marks** |

**Technical Architecture:**



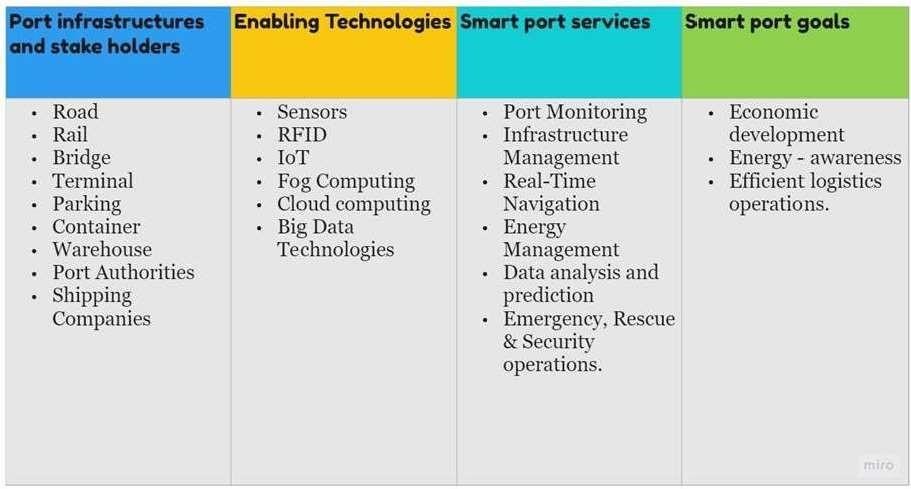


Table-1: Components & Technologies:

|  |  |  |  |
| --- | --- | --- | --- |
| **S.**  **No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | How user interacts with application e.g; Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript |
| 2. | Application Logic-1 | Logic for a process in the application | 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 |
| 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 | Purpose of External API used in the application | IBM Weather API, etc. |

|  |  |  |  |
| --- | --- | --- | --- |
| 9. | External API-2 | Purpose of External API used in the application | Aadhar API, etc. |
| 10. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
| 11. | 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** |
| 1. | Open-Source Frameworks | List the open-source frameworks used | Django |

|  |  |  |  |
| --- | --- | --- | --- |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Microservices) | 3-tier, Micro- Services |
| 4. | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) |
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc. | number of requests per sec, use of Cache |