

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

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|----------------------|--|
| Date | 08 November 2022 |
| Team ID | PNT2022TMID10277 |
| Project Name | Industry-specific intelligent fire management system |
| Maximum Marks | 4 Marks |

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

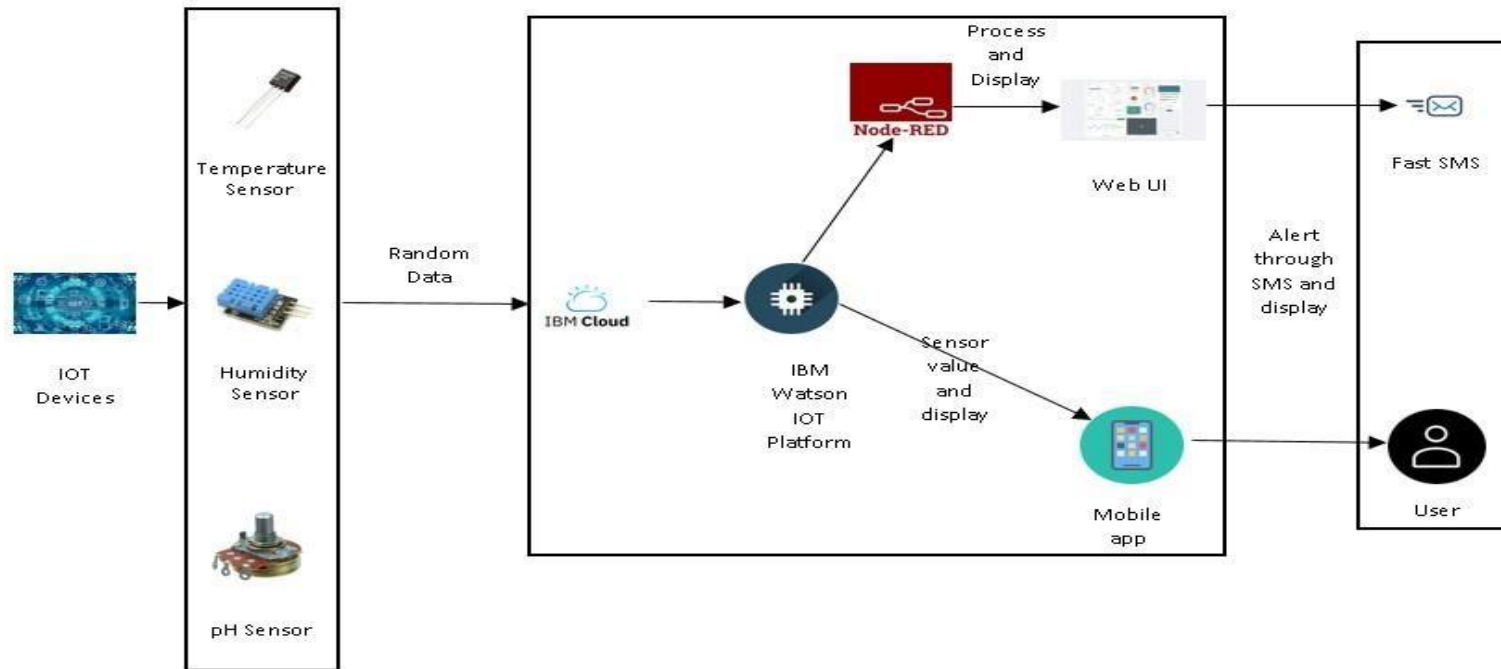


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|---------------------|-----------------------------|---|
| 1. | User Interface | Web UI, Mobile App | Node – Red, Kubernetes, MIT mobile app inventor |
| 2. | Application Logic-1 | Generate random data | Python |
| 3. | Application Logic-2 | Generate random sensor data | IBM Watson IOT Platform |
| 4. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant, |
| 5. | External API-1 | Send SMS to customer | Fast SMS API |

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|----|---------------------------------|---------------------------------|---------------------------|
| 6. | Infrastructure (Server / Cloud) | Application Deployment on Cloud | Cloud Foundry, Kubernetes |
|----|---------------------------------|---------------------------------|---------------------------|

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|---|---|
| 1. | Open-Source Frameworks | the open-source tools we utilized to create our project | Node – Red, IBM Cloudant, IBM Watson IOT Platform |
| 2. | Security Implementations | Use of a login page with a user's unique username and password on a web interface optimized for mobile devices and computers with adjustable screen sizes | Password protection in MIT App |
| 3. | Scalable Architecture | optimized for mobile devices and computers with adjustable screen sizes | Node – Red (Web UI) |
| 4. | Availability | accessible to users through both a web UI and a mobile app | Node – Red(Web UI), MIT App(Mobile App) |
| 5. | Performance | Give precise results and a prompt warning in the event of temperature raise | Node – Red(Web UI), MIT App(Mobile App) |