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

Date	13 May 2023
Team ID	NM2023TMID16319
Project Name	Industrial Workers Health and Safety System based on Internet of Things

Technical Architecture:

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

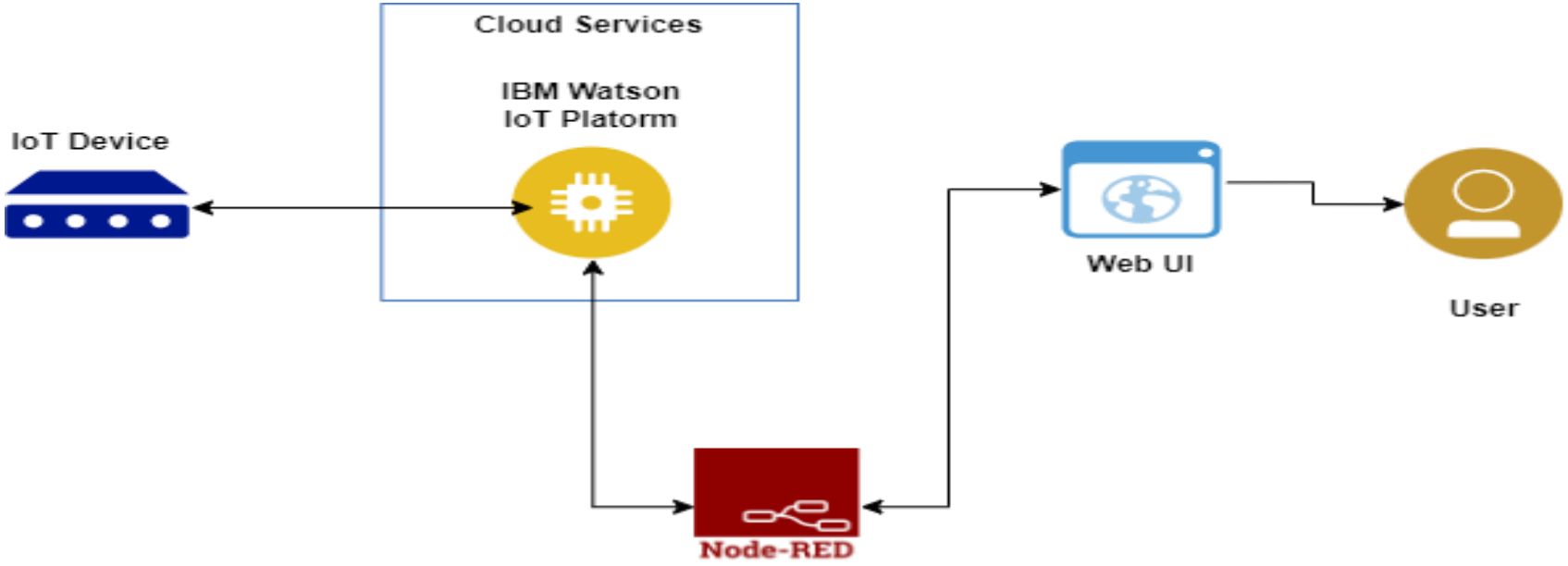

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Sensors	used to measure parameters such as gas pressure, flow rate, temperature, and humidity in the industry	Wireless
3.	Internet of things(IOT) Gateway	used to connect the sensors to the cloud or the industry's network.	Wifi,Bluetooth,zigbee
4.	Cloud Platform	used to store and process the data collected by the sensors	IBM cloud
5.	analytics	used to process and analyze the data collected by the sensors.	IBM watson
6.	Mobile and web applications	used to provide access to the workers health monitoring system for industry workers.	IBM watson

7.	Integration with existing Industry Monitoring Systems	integrate with existing industry monitoring systems such as safety systems, maintenance systems, and emergency response systems	IBM Block Storage

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Real-time Monitoring and Alerting	allowing industry worker to quickly detect and respond to any issues that arise.	Technology used
2.	Predictive Maintenance and Optimization	the system can predict potential issues and schedule maintenance proactively to prevent downtime and ensure optimal system performance.	Technology used
3.	Compliance and Reporting	helping industry workers to ensure compliance with safety regulations and standards.	Technology used
4.	Scalability and Flexibility	flexible enough to adapt to changes in sensor technology or communication protocols.	Technology used
5.	Security and Privacy	should have appropriate security measures in place to protect sensitive data and prevent unauthorized access.	Technology used