INDUSTRIAL WORKERS HEALTH AND SAFETY SYSTEM BASED ON INTERNET OF THINGS

DATE	03 MAY 2023
TEAM ID	NM2023TMID08054
PROJECT NAME	INDUSTRIAL WORKERS HEALTH AND SAFETY SYSTEM BASED ON INTERNET OF THINGS
MAXIMUM MARKS	4 MARKS

CUSTOMER PROBLEM STATEMENT

Here are some key components of an IoT-based health and safety system for industrial workers:

1. Wearable devices: Workers can wear IoT-enabled devices, such as smartwatches or sensors embedded in clothing or helmets, that can monitor vital signs, body temperature, and movement.
2. Environmental sensors: IoT-enabled sensors can be placed in the workplace to monitor air quality, temperature, and other environmental factors that may affect worker health and safety.
3. Real-time monitoring: The data collected by wearable devices and environmental sensors can be transmitted in real-time to a central database, where it can be analyzed and acted upon.
4. Alerts and notifications: If a worker's vital signs or environmental factors exceed safe levels, an alert can be sent to a supervisor or safety manager, who can take immediate action to ensure the worker's safety.
5. Data analytics: The data collected by the IoT-based health and safety system can be analyzed to identify trends and patterns, which can be used to improve workplace safety and prevent accidents.
6. Predictive analytics: By analyzing data over time, the system can predict potential hazards or unsafe conditions, allowing for proactive measures to be taken to prevent accidents

PROJECT DESCRIPTION

With the help of sensors attached to the shoes of the workers, the information such as the temperature measure, altitude parameters, the total distance walked is recorded and sent to the cloud for storage. This data will be visualised in the mobile application and through a web application, the authorities can check every worker's status. If someone is working on the higher altitudes, important and required precautions are sent to them, thus increasing their safety.

TECHNICAL ARCHITECTURE

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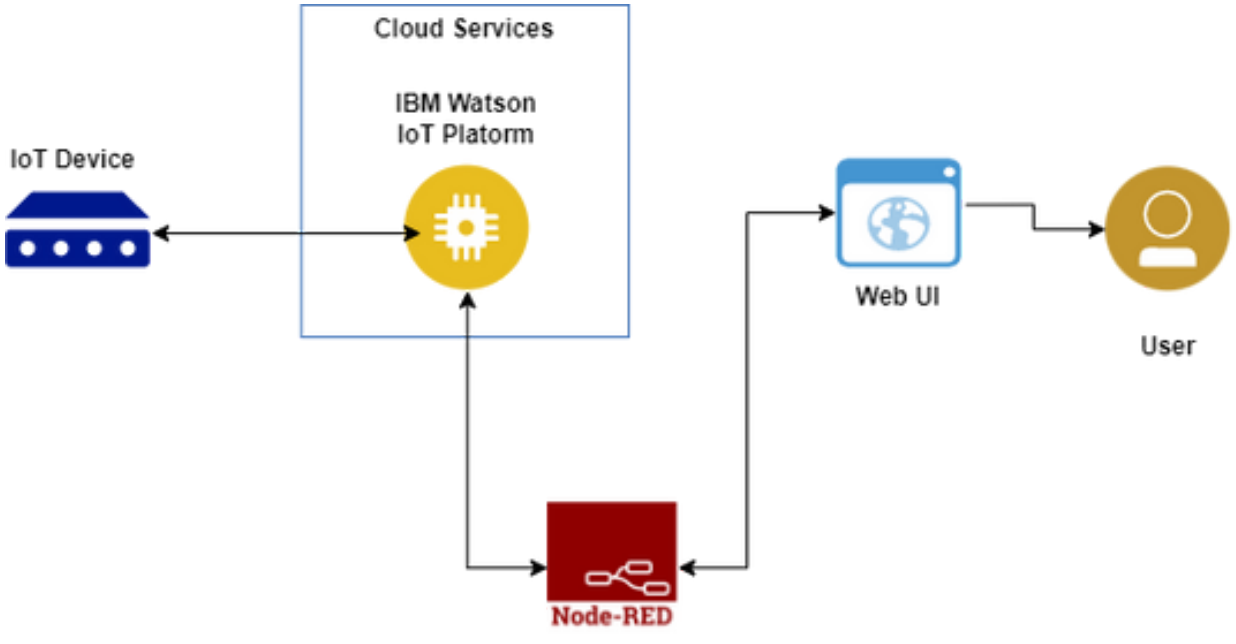

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