Project Design Phase-I
Solution Architecture

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Team ID	**NM2023TMID15400**
Project Name	**Industrial Workers Health and Safety System based on Internet of Things**

Solution Architecture:

The solution architecture of the Industrial Workers Health and Safety System based on the Internet of Things (IoT) comprises various interconnected components that work together to ensure worker safety. At the core of the architecture are IoT devices and sensors deployed throughout the industrial workplace. These devices capture real-time data on environmental conditions, personal protective equipment usage, worker location, and vital signs. The data collected by the sensors is transmitted to a central hub or cloud-based platform for processing and analysis. The platform utilizes data analytics algorithms to monitor and interpret the collected data, enabling the detection of potential hazards, abnormal conditions, or safety breaches. Alerts and notifications are then generated and sent to workers and supervisors in real-time through mobile applications or other communication channels. The architecture may also include integration with existing safety systems, such as emergency response mechanisms or access control systems, to facilitate coordinated actions. This solution architecture ensures continuous monitoring, timely detection, and immediate response to mitigate risks, enhance worker safety, and create a healthier work environment.

Example - Solution Architecture Diagram: