Project Objectives .

Team ID	PNT2022TMID51059
Project Title	**Gas Leakage Monitoring & Alerting System For Industries**
Date	07 Nov,2022

By the end of this project we have:

- Gained knowledge of Watson IoT Platform.
- Connected IoT devices to the Watson IoT platform and exchanging the sensor data.
- Gained knowledge on IBM Cloudant DB
- Explored Python client libraries of Watson IoT Platform.
- Explored Python library for integrating OpenCV for accessing the Live Camera Input
- Scanned the QR code in live streaming and retrieve the QR code details
- Gained knowledge of web application development.
- Gained knowledge of storing the data in Cloudant DB
- Generated QR codes with the required data.

Project Flow:

- The parameters like hazardous gas levels, fire, humidity, and temperature data are published to the Watson IoT platform
- The device will subscribe to the commands from the application and take decisions accordingly to switch on the rainwater sprinkler in case of emergencies
- Sensor data is visualized in the Web Application

To accomplish this, we have completed all the activities and tasks listed below:

- Create and configure IBM Cloud Services
    - Create IBM Watson IoT Platform and Device
    - Create Node-RED service
- Develop the Python Script
    - Develop the Python Script
- Develop a web Application using Node-RED Service.

- Develop the Web application using Node-RED
- Testing the Web UI by giving the required inputs