

PROJECT OBJECTIVES

Date	17 November 2022
Team ID	PNT2022TMID35759
Project Name	Gas leakage monitoring and alerting system

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Project Objectives

By the end of this project you will:

Gain knowledge of Watson IoT Platform.
Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
Gain knowledge on IBM Cloudant DB
Explore Python client libraries of Watson IoT Platform.
Explore Python library for integrating OpenCV for accessing the Live Camera Input
Scan the QR code in live streaming and retrieve the QR code details
Gain knowledge of web application development.
Gain knowledge of storing the data in Cloudant DB
Generating 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 to complete all the activities and tasks listed below:

- Create and configure IBM Cloud Services

- Create IBM Watson IoT Platform and DeviceE

- 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