

Sprint - 1

Team Id	PNT2022TMID14695
Title	Hazardous Area Monitoring For Industrial Plant Using Iot

Configuring the IBM cloud services

IBM Watson Platform

The screenshot displays the IBM Cloud console interface. At the top, there's a navigation bar with the IBM Cloud logo, a search bar, and links for Catalog, Manage, and the user's account (Tharun Polam's Account). Below this, the main content area shows the 'Internet of Things Platform-Oh' resource, which is currently 'Active'. A sidebar on the left offers options to 'Manage', 'Plan', or view 'Connections'. The central part of the page features a large graphic of a central node connected to various devices, with the heading 'Let's get started with IBM Watson IoT Platform'. Below this, a section titled 'Ready for the next level?' introduces the 'IBM Watson IoT Platform Journey' with three stages: 'Lite', 'Non-Production', and 'Production'. The 'Lite' stage is marked as completed. The 'Non-Production' stage is described as a full-featured, fully-integrated offering that enables exploration of the platform. The 'Production' stage is a fully managed SaaS offering for managing and analyzing enterprise IoT data. A bottom status bar shows the weather (28°C, Mostly clear) and system icons.

IBM Cloud

Search resources and products...

Internet of Things Platform-Oh Active Add tags Details Actions...

Manage

Plan

Connections

Let's get started with IBM Watson IoT Platform

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

Launch Docs

Ready for the next level?

IBM Watson IoT Platform Journey

☒ Lite

The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.

- Free

☐ Non-Production

The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.

- Starts at \$500 per month

☐ Production

The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

- Includes IBM Service & Support

28°C Mostly clear

6:14 PM 11/25/2022

IBM Watson IoT Platform

111619106099@smartinternz.com
ID: nw98jc

Browse Action Device Types Interfaces

Browse Devices

All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
>	12345	Disconnected	abcd	Device	Nov 25, 2022 5:31 PM	india
>	abdh	Disconnected	56788	Device	Nov 25, 2022 5:44 PM	wqw

Items per page 50 | 1-2 of 2 items

1 of 1 page

Node Red Configuration Cloudant dB

Resource list / App details /

Node RED HQMOJ 2022-11-17

Actions...

Details

App URL: You must deploy your app first

Source: [Download code](#)

Resource group: Default

Deployment target: You must deploy your app first

Created: 17/11/2022

Services

Cloudant

[Open dashboard](#) [Documentation](#) [API reference](#)

Credentials

[Connect existing services](#) [Create service](#)

Deployment Automation

Name: NodeREDHQMOJ2022-11-17

Location: London

Tool integrations: [Lightbulb](#) [Gears](#) [Refresh](#)

Delivery Pipelines

Name: pr-pipeline

Status: No stages detected

Name: ci-pipeline

Status: Success

Getting started quickly

Configuring your app

To connect services and DevOps toolchains to your app:

1. Use the **Services** card to connect a service to your app. Select an existing service instance, or create a new one. [Learn more](#)
2. If you want to view the code before your app is deployed, click **Download code** to obtain the .zip file.
3. Click **Deploy your app** in the **Deployment Automation** card to select the deployment target and configure the Continuous Delivery service. The deployment begins automatically.
4. After the deployment begins, you can view the status of the deployment, modify your app, view your repo, or view the

ASK A QUESTION

Show all

Resource list / node-red-hqmoj-2022--cloudant-1668667940121 Active [Add tags](#)

Details [Actions...](#)

Manage Overview Capacity Docs [Launch Dashboard](#)

Service credentials
Plan
Connections

Deployment details

CRN: crn:v1:bluemix:public:cloudantnosqldb:eu-gb:a/dde4ef3bf0f34866ba7e1cbc495c974e:91eec95d-a2ff-458f-ab40-946c09e3de9::

Location: London

External endpoint: <https://8e8558ed-36b4-4ba5-a2f6-371ce7014fe0-bluemix.cloudant.com>

External endpoint (preferred): <https://8e8558ed-36b4-4ba5-a2f6-371ce7014fe0-bluemix.cloudantnosqldb.appdomain.cloud>

Authentication methods: [IBM Cloud IAM](#) and [Cloudant credentials](#) [Migrate to IAM Only](#)

Activity Tracker event types: Management [Save](#)

Disk encryption: Yes. Automatically generated disk encryption key.

Generation of Python code for publishing the random sensor data to the IBM IoT WATSON Platform.

wokwi.com/projects/348725010069717587

WOKWI [SAVE](#) [SHARE](#) [Docs](#)

sketch.ino diagram.json libraries.txt Library Manager

```

1 #include <WiFi.h> // Library for wifi
2 #include <PubSubClient.h> // Library for MQTT
3 #include "DHT.h" // Library for dht11
4 #define DHTPIN 15 // what pin we're connected to
5 #define DHTTYPE DHT22 // define type of sensor DHT 11
6 #define LED 2
7
8 DHT dht (DHTPIN, DHTTYPE); // creating the instance by passing pin and type of dht conn
9
10 void callback(char* topic, byte* payload, unsigned int payloadLength);
11
12 //-----credentials of IBM Accounts-----
13
14 #define ORG "3lhmfj" // IBM ORGANIZATION ID
15 #define DEVICE_TYPE "efgh" // Device type mentioned in IBM Watson IoT Platform
16 #define DEVICE_ID "56789" // Device ID mentioned in IBM Watson IoT Platform
17 #define TOKEN "123456789" // Token
18 String data;
19 float h, t;
20
21
22 //----- Customise the above values -----
23 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Server Name
24 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and type of event perform
25 char subscribTopic[] = "iot-2/cmd/command/fmt/String"; // cmd REPRESENT command type
26 char authMethod[] = "use-token-auth"; // authentication method
27 char token[] = TOKEN;
28 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; // client id
29
30
31 //-----
32 WiFiClient wificlient; // creating the instance for wificlient
33 PubSubClient client(server, 1883, callback, wificlient); // calling the predefined client
34
35

```

Simulation 02:38.197 103%

Editing DHT22
Temperature: 24.0°C
Humidity: 40.0%

temp:24.00
Humid:40.00
Sending payload: {"temp":24.00,"Humid":40.00}
Publish ok
temp:24.00

Random Temperature and humidity values generated and published to IBM IoT platform

