

## SPRINT-2

Team ID	PNT2022TMID19466
Project Title	Smart Farmer – IoT enabled Smart Farming Application
Date	17-11-2022

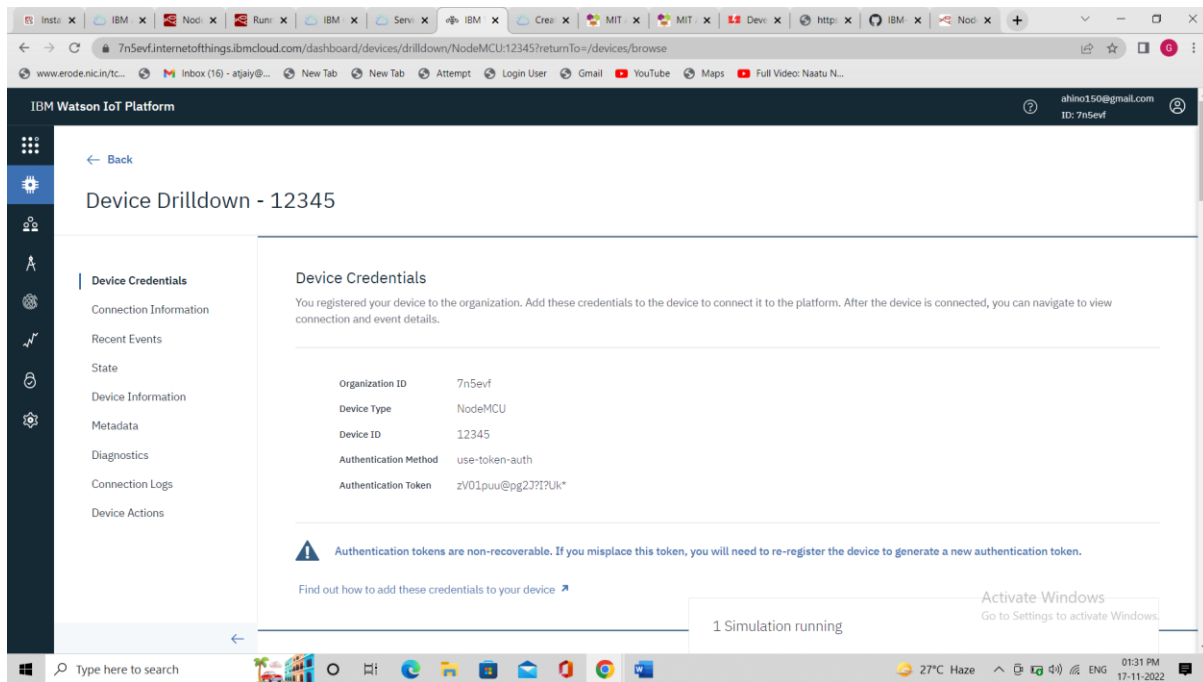
Steps to create an IBM Watson IOT service:

- Click on catalog in IBM cloud account.
- Click on services.
- Enter as Internet of thing platform.
- Enter region and pricing plan.
- Enter service name and click create.
- Click on launch.
- Then IBM Watson OT platform opens.
- Click on sign in. Enter IBM Id.
- Enter Password.
- Then you can access IBM Watson IOT platform.

Steps to create a device:

- Click on devices in IBM Watson IOT platform.
- Choose to create a device.
- Enter the device type as Node MCU.
- Enter the device ID as 12345.
- Click next.
- Enter device credentials (optional).
- Click next.
- Enter the authentication token (optional).
- Click on continue.
- Click on next.
- Click finish.

Device is created successfully, and we can see device credentials.



### Steps to create a Node-Red service:

- Click on catalog in IBM cloud account.
- Click on services.
- Enter as Node red service.
- Node red app opens click on get started.
- Enter app name as default.
- Enter region as London.
- Choose pricing plan as lite.
- Click create.
- You will be redirected to a new page.
- Click on deploy your app.
- Choose cloud foundry.
- Enter IBM API key (by clicking new+).
- Choose memory size as default.
- Enter region as London.
- Click next.
- Click create.
- Status will be updated after creation.
- Click on App URL.
- Click next.
- Choose not recommended.
- Click next.
- You will see Node red page.
- Go to your node red flow editor.
- In the left panel choose nodes.
- In the right panel choose context mode.

- In hello node red inject node enter the data as string and choose to repeat as none.
- Click done.
- Click debug node.
- Choose to deploy.
- When you click button on inject node you can see the message in debug console.

The screenshot shows the IBM Cloud Developer console for an application named "Node RED GCEAE 2022-11-17". The interface includes a sidebar with "Resource list" and "App details", a main content area with "Details", "Services", "Deployment Automation", and "Delivery Pipelines", and a right-hand panel with "Getting started quickly" and "ASK A QUESTION".

**Details:**

- App URL: You must deploy your app first
- Source: <https://us-south.git.cloud.ibm.com/ahino150/NodeREDGCEAE...>
- Resource group: Default
- Deployment target: You must deploy your app first
- Created: 17/11/2022

**Services:**

- Cloudant: Open dashboard, Documentation, API reference, Credentials
- Buttons: Connect existing services, Create service

**Deployment Automation:**

- Name: NodeREDGCEAE2022-11-17
- Location: Dallas
- Tool integrations: [Icons]

**Delivery Pipelines:**

- Name: ci-pipeline, Status: In progress
- Name: pr-pipeline, Status: No stages detected

**Getting started quickly:**

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 app's URL.

The screenshot shows the IBM Cloud Developer console for an application named "Node RED LCNAE 2022-11-17". The interface is similar to the previous one, but the deployment status is different.

**Details:**

- App URL: <https://node-red-lcae-2022-11-17.mybluemix.net>
- Source: <https://us-south.git.cloud.ibm.com/ahino150/NodeREDLCNAE...>
- Resource group: Default
- Deployment target: Node RED LCNAE 2022-11-17
- Created: 17/11/2022

**Services:**

- Cloudant: Open dashboard, Documentation, API reference, Credentials
- Buttons: Connect existing services, Create service

**Deployment Automation:**

- Name: NodeREDLCNAE2022-11-17
- Location: Dallas
- Tool integrations: [Icons]

**Delivery Pipelines:**

- Name: ci-pipeline, Status: Success
- Name: pr-pipeline, Status: No stages detected

**Getting started quickly:**

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 app's URL.

node-red-apdte-2022-11-15.eu-gb.mybluemix.net/red/#flow/3cd27c109e543c30

Node-RED

Flow 1

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

change

range

temperature

switch

http request

msg.payload

msg.payload

[get]/data

data

http

MOTOR ON

MOTOR OFF

ibm iot

msg.payload

[get]/command

http

help

Search help

node-red-contrib-scx-ibmiotapp

ibmiot

ibmiot in

ibmiot out

node-red-contrib-web-worldmap

node-red-dashboard

ibmiot out

Output node that can be used with Watson IoT Platform to send a commands to a device or send an event on behalf of a device

The following message properties take precedence and override the values configured in the node:

**msg.deviceId** overrides the value of "Device Id"

**msg.deviceType** overrides the value of "Device Type"

**msg.eventOrCommandType** overrides the value of "Event Type" or "Command Type"

**msg.format** overrides the value of "Format". This Node supports json, buffer and other types. When the format is not json, this

Type here to search

28°C Cloudy

12:59 PM

16-11-2022