

## Sprint-2 Software

Date	04 November 2022
Team ID	PNT2022TMID19113
Project Name	SmartFarmer - IoT Enabled Smart Farming Application

### Creating IBM Watson IoT platform, workflow for IoT scenarios using Node-Red

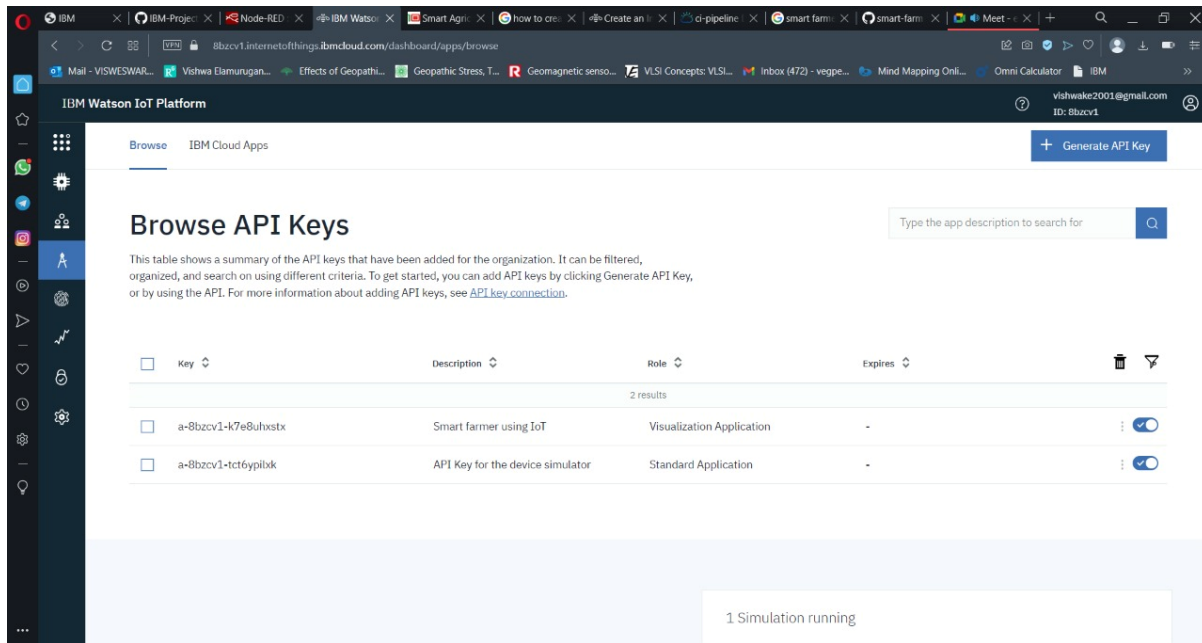
#### • Creating IBM Watson IoT platform:

The screenshot displays the IBM Watson IoT Platform interface. The top section shows the 'Internet of Things Platform-f8' dashboard with a 'Launch' button and a 'Docs' button. Below this, the 'IBM Watson IoT Platform Journey' is shown with three stages: Lite, Non-Production, and Production. The bottom section shows the 'Browse Devices' page, which lists devices in a table.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
1234	Disconnected	Arduino	Device	Nov 16, 2022 8:06 PM	
Arduino_1	Connected	Arduino	Device	Nov 16, 2022 10:03 PM	

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1 Simulation running



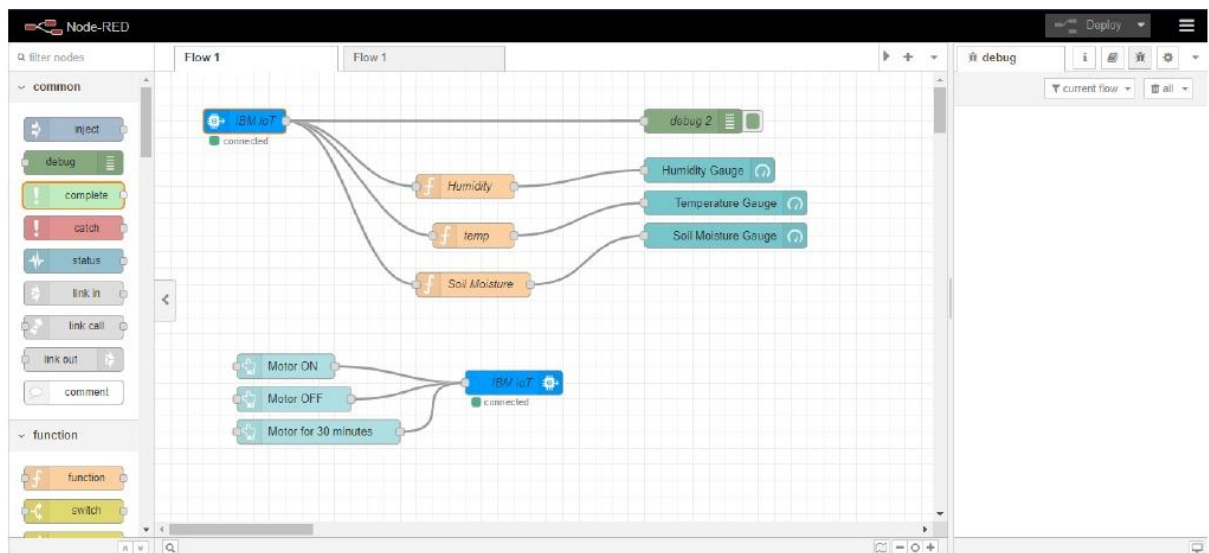
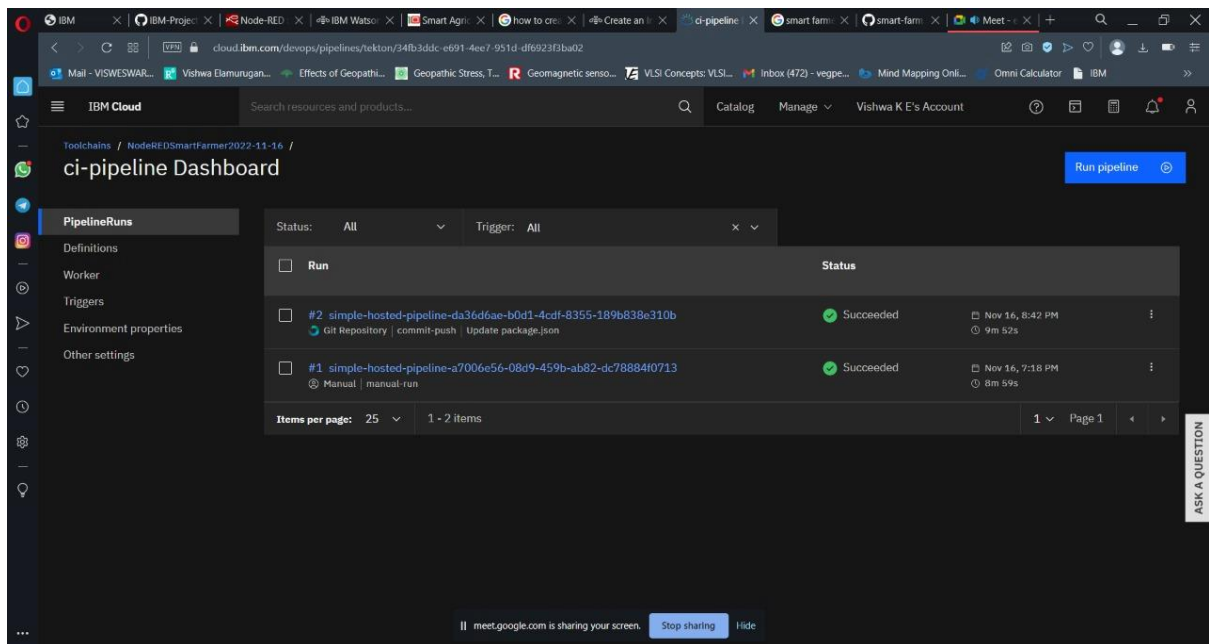
## Explanation

A fully managed, cloud-hosted service with capabilities for device registration, connectivity, control, rapid visualization, and data storage. IBM Watson IoT Platform is a managed, cloud-hosted service designed to make it simple to derive value from your IoT devices.

## **Steps to configure:**

- Create an account in IBM cloud using your email ID
- Create IBM Watson Platform in services in your IBM cloud account
- Launch the IBM Watson IoT Platform
- Create a new device
- Give credentials like device type, device ID, Auth. Token
- Create API key and store API key and token elsewhere.

- **Node-Red:**



## Explanation

Node-RED is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs, and online services as part of the Internet of Things. Node-RED provides a web browser-based flow editor, which can be used to create JavaScript functions.

## **Installation:**

→ First, install the Node

- open command prompt
- Type ->npm install node-red

### **To Run the application:**

- open command prompt
- And then type “node-red”
- Now open <http://localhost:1880/> in the browser

### **Installation of IBM IOT nodes and Dashboard nodes for Node-Red**

- To connect to the IBM Watson IOT platform and create the web UI, these nodes are required
1. IBM IoT Node
  2. Dashboard Node