

SPRINT 2

Date	07November 2022
Team ID	PNT2022TMID46860
Project Name	Project – Smart Farmer- IoT based Smart Farming Application

IBM DASHBOARD

The screenshot displays the IBM Cloud Dashboard in a web browser. The browser's address bar shows 'cloud.ibm.com'. The dashboard header includes the 'IBM Cloud' logo, a search bar, and navigation links for 'Catalog', 'Manage', and 'karthick raj's Account'. The main content area is titled 'Dashboard' and features a 'For you' section with several quick-start options: 'Build' (Explore IBM Cloud with this selection of easy starter tutorials and services), 'Create an OpenShift cluster' (Deploy apps on highly available clusters with Red Hat OpenShift on IBM Cloud), 'Explore IBM Cloud Shell' (Try a command-driven approach for creating, developing, and deploying a web project), 'Create a Kubernetes cluster' (Automate deployments and manage your containerized apps in a native Kubernetes experience), 'Deploy on Kubernetes' (With Kubernetes clusters, you can run, update, and scale containerized applications), and 'Use An' (Develop advanced applications). Each option includes a 'Getting started' button and a time estimate. Below the 'For you' section, there are three more sections: 'User access' (Manage users), 'News' (View all), and 'Planned maintenance' (View all). The 'News' section lists 'IBM Cloud Satellite New Pricing' and 'IBM Cloud Data Shield Deprecation'. The bottom of the dashboard shows a Windows taskbar with various application icons and a system clock indicating 16:17 on 18-11-2022.

IBM WATSON PLATFORM FOR IOT

Resource list / Internet of Things Platform-xg 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
- Non-Production**
The Non-Production service plan is a full-featured, fully-integrated offering that enables
- Production**
The Production service is a fully managed SaaS offering that enables you to manage and analyze

DEVICE CAN BE CONNECT TO PYTHON CODE

IBM Watson IoT Platform karthickraj1206@gmail.com ID: j3bgcj [Add Device](#)

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.

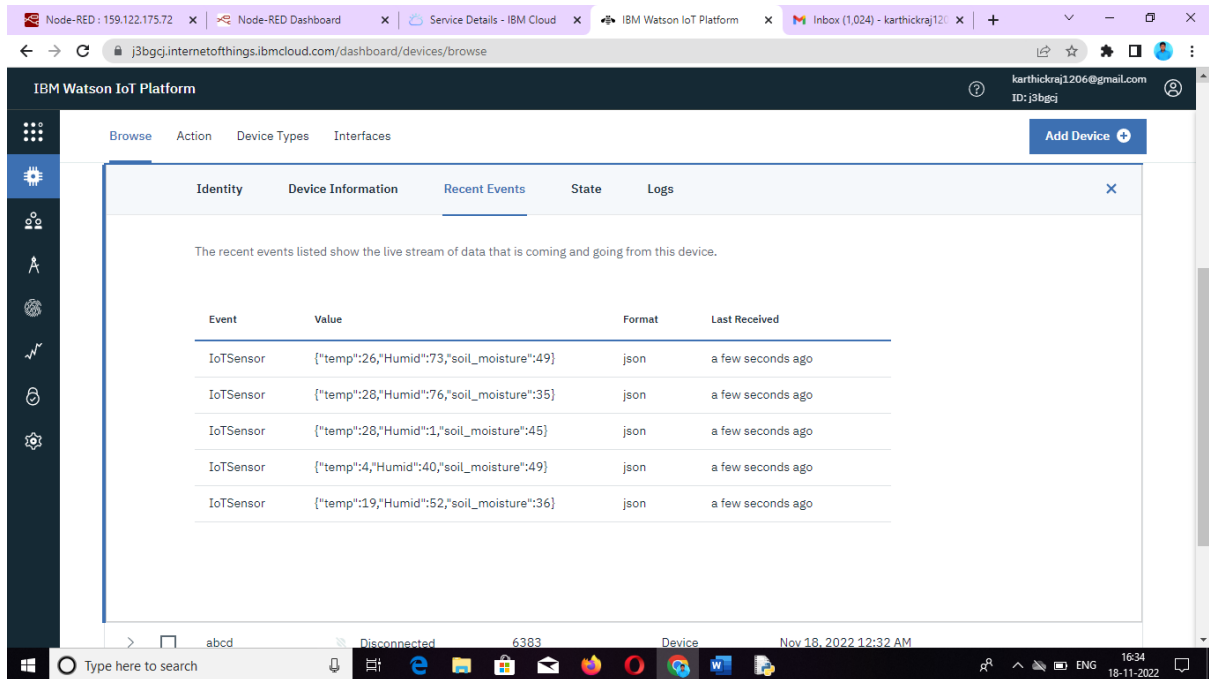
Search by Device ID Device Simulator Filter

Device ID	Status	Device Type	Class ID	Date Added
1234	Connected	nodeMCU	Device	Nov 13, 2022 2:00 PM

Identity **Device Information** **Recent Events** **State** **Logs**

The recent events listed show the live stream of data that is coming and going from this device.

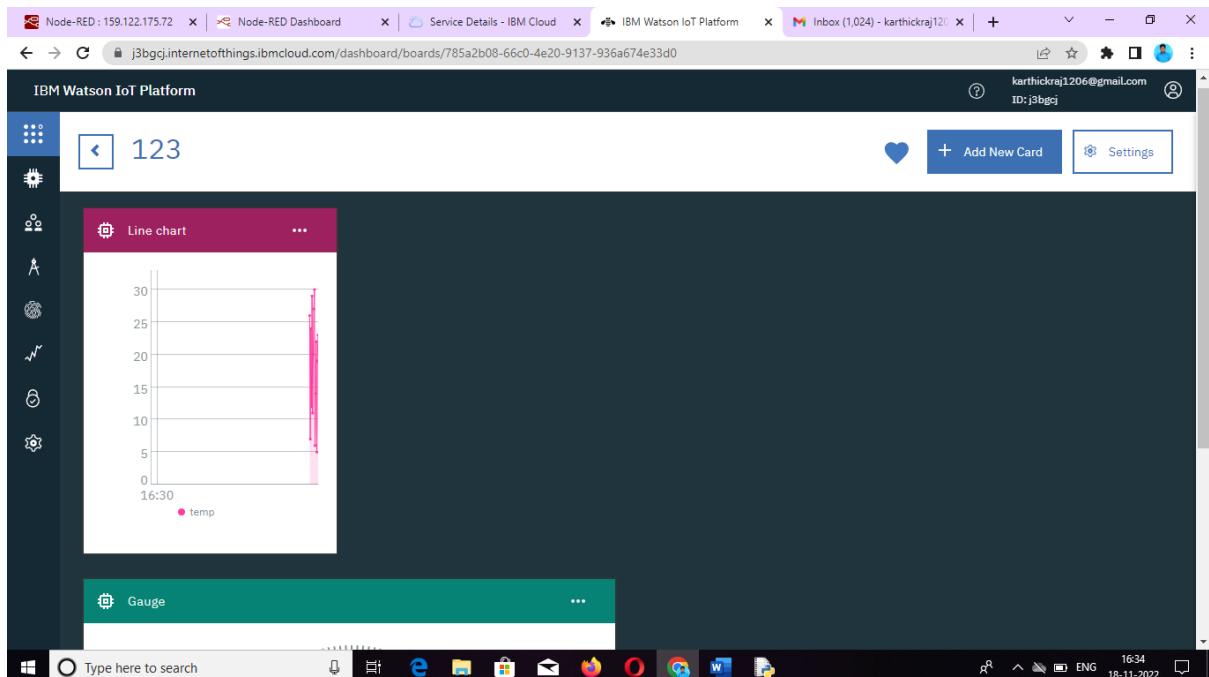
OUTPUT CAN BE SHOWN IN THE EVENT



The screenshot shows the IBM Watson IoT Platform dashboard. The 'Recent Events' tab is selected, displaying a table of events. The table has four columns: Event, Value, Format, and Last Received. The events are from an IoTSensor device, showing temperature, humidity, and soil moisture data in JSON format.

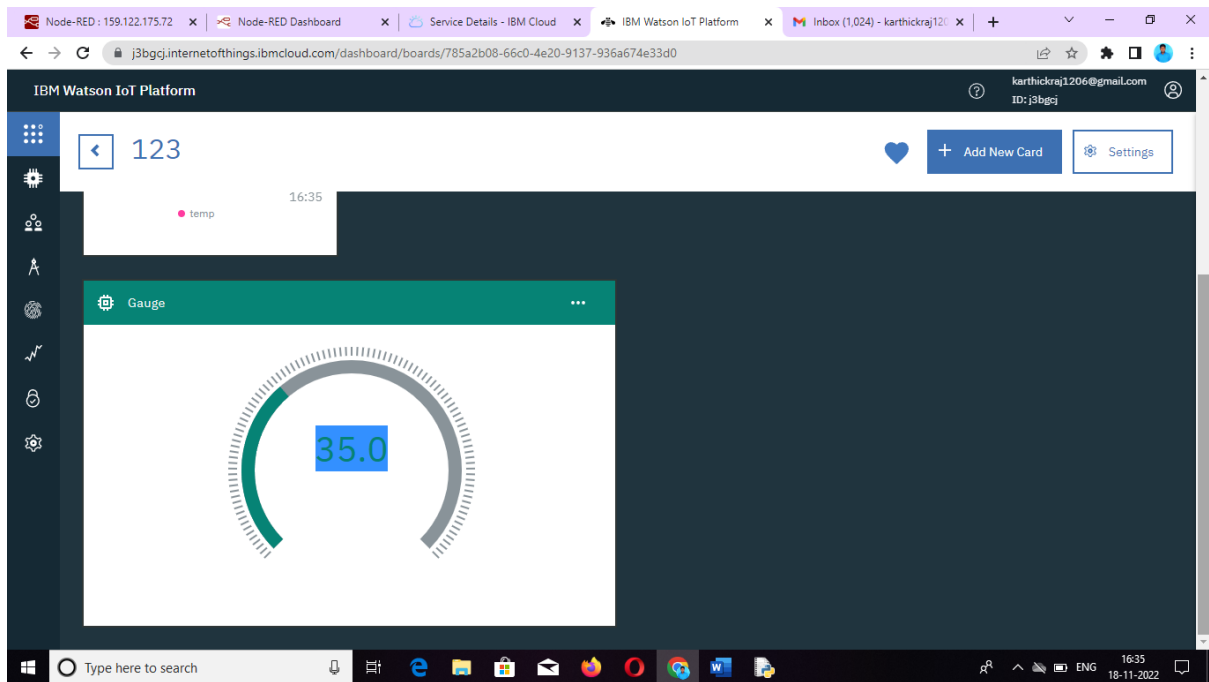
Event	Value	Format	Last Received
IoTSensor	{"temp":26,"Humid":73,"soil_moisture":49}	json	a few seconds ago
IoTSensor	{"temp":28,"Humid":76,"soil_moisture":35}	json	a few seconds ago
IoTSensor	{"temp":28,"Humid":1,"soil_moisture":45}	json	a few seconds ago
IoTSensor	{"temp":4,"Humid":40,"soil_moisture":49}	json	a few seconds ago
IoTSensor	{"temp":19,"Humid":52,"soil_moisture":36}	json	a few seconds ago

IBM WATSON DASBOARD FOR UI

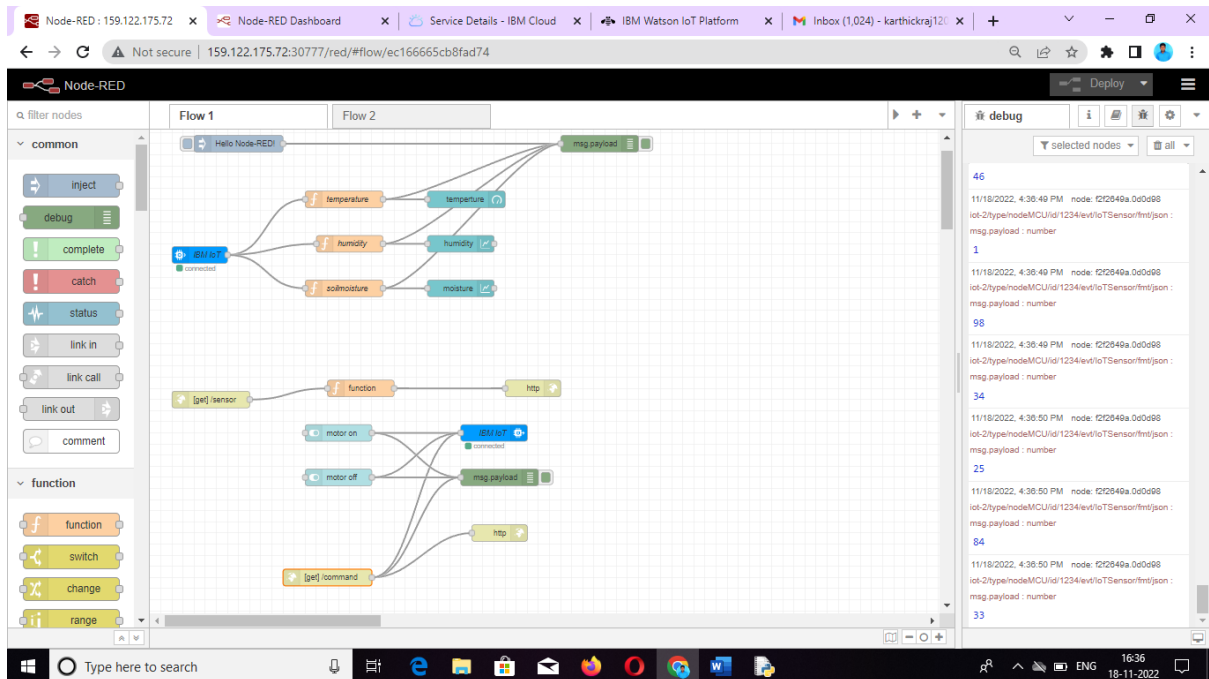


The screenshot shows the IBM Watson IoT Platform dashboard with a custom UI. The top section displays a line chart for temperature (temp) data. The chart has a y-axis ranging from 0 to 30 and an x-axis showing time (16:30). Below the chart is a gauge meter. The dashboard also includes a navigation bar with 'Add New Card' and 'Settings' buttons.

GAUGE METER



IBM CLOUD CAN BE CONNECT TO NOD-RED VIA KUBERNETES



NODE-RED IBM IOT CONNECT VIA API KEYS

IBM Watson IoT Platform

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Generate API Key

Browse API Keys

Type the app description to search for

This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see [API key connection](#).

<input type="checkbox"/>	Key	Description	Role	Expires	
4 results					
<input type="checkbox"/>	a-j3bgcj-7hzbv9yg6w	-	Standard Application	-	<input checked="" type="checkbox"/>
<input type="checkbox"/>	a-j3bgcj-can6rgcvth	API Key for the device simulator	Standard Application	-	<input checked="" type="checkbox"/>
<input type="checkbox"/>	a-j3bgcj-f8qogvnb3w	-	Standard Application	-	<input checked="" type="checkbox"/>
<input type="checkbox"/>	a-j3bgcj-xt4gch5j3i	API Key for the device simulator	Standard Application	-	<input checked="" type="checkbox"/>

IBM DASHBOARD CAN INSATALL IN NODE-RED AND USE IBM IOT API KEYS

Node-RED

Flow 1

Flow 2

edit ibmiot in node

Delete Cancel Done

Properties

- Authentication: API Key
- API Key: IBMIotapi
- Input Type: Device Event
- Device Type: All or +
- Device Id: device id e.g. ab12cd231a21
- Event: All or +
- Format: All or json
- QoS: 0
- Name: IBM IoT
- Service: registered

Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status

Enabled

dashboard

Layout Site Theme

tabs & links

- IOT ui
- sensor