

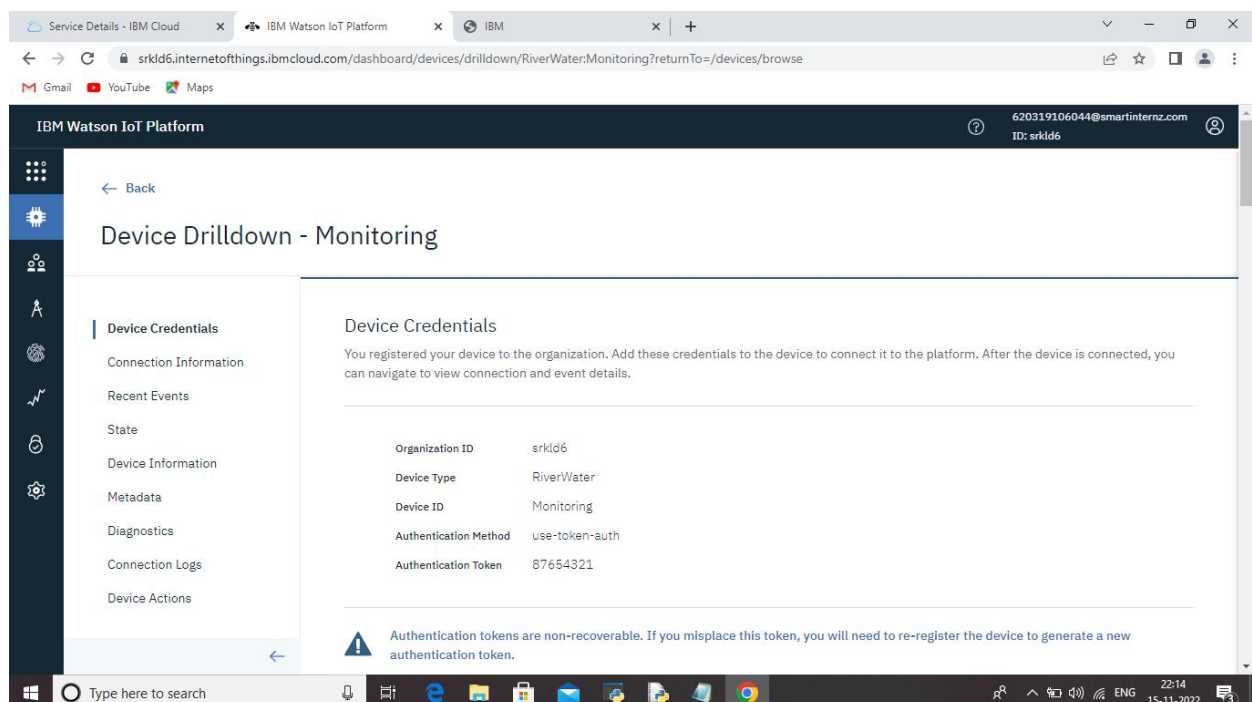
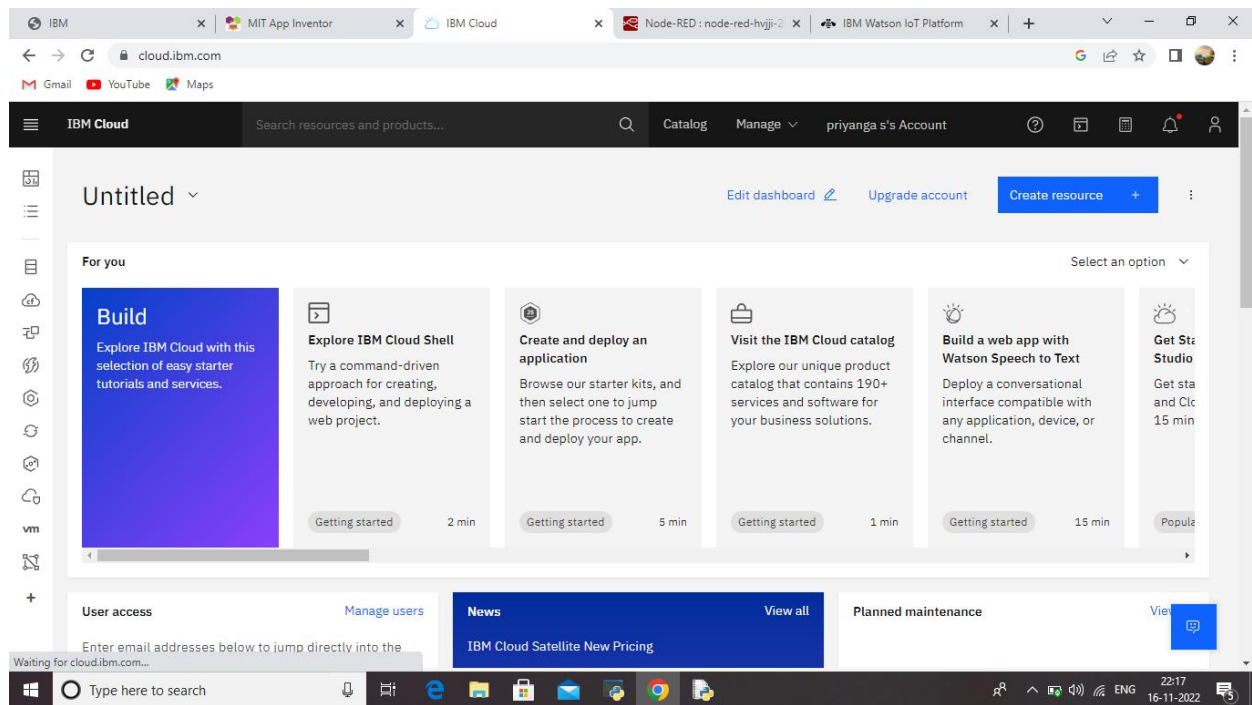
Create and configure IBM cloud service

Creat IBM Watson IOT platform and Device

TEAM ID : PNT2022TMID41415

TITLE : Real time river water quality monitoring and control system

IBM WATSON INSTALLATION



IBM Watson IoT Platform

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Browse Action Device Types Interfaces

2811 Disconnected NodeMCU Device Nov 10, 2022 6:45 AM

Monitoring Disconnected RiverWater Device Nov 15, 2022 10:18 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.

Event	Value	Format	Last Received
event_1	{"randomNumber":31}	json	a few seconds ago

Items per page 50 | 1-2 of 2 items

1 Simulation running

Type here to search

Service Details - IBM Cloud IBM Watson IoT Platform IBM

srkld6.internetofthings.ibmcloud.com/dashboard/devices/browse

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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.

Event	Value	Format	Last Received
IoTSensor	{"Turbidity Value":1}	json	a few seconds ago
IoTSensor	{"pH Value":12}	json	a few seconds ago
IoTSensor	{"Turbidity Value":5}	json	a few seconds ago
IoTSensor	{"pH Value":4}	json	a few seconds ago
IoTSensor	{"Turbidity Value":1}	json	a few seconds ago

Type here to search

The screenshot displays the IBM Watson IoT Platform interface and a Node-RED shell window. The IBM Watson IoT Platform shows a list of devices, including '2811' (Disconnected) and 'Monitoring' (Connected). The 'Monitoring' device is selected, showing its details and recent events. The Node-RED shell window displays the output of a Python script, showing a stream of data points for Turbidity and pH values of water.

IBM Watson IoT Platform - Browse Devices

This table shows a summary of all devices that have been added. It can be filtered by various criteria. To get started, you can add devices by using the Add Device button.

Device ID	Status
2811	Disconnected
Monitoring	Connected

Items per page: 50 | 1-2 of 2 items

Monitoring Device Details

Identity	Device Information	Recent Events	State
Monitoring	Connected	RiverWater	Device

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

Event	Value	Format
IoT Sensor	{"Turbidity Value": 63}	json
IoT Sensor	{"pH Value": 6}	json
IoT Sensor	{"Turbidity Value": 60}	json
IoT Sensor	{"pH Value": 11}	json

Python 3.7.0 Shell Output

```
Turbidity Value of Water 89
pH Value of Water 0
Turbidity Value of Water 89
{'pH Value': 0}
{'Turbidity Value': 54}
pH Value of Water 0
Turbidity Value of Water 54
pH Value of Water 0
Turbidity Value of Water 54
{'pH Value': 14}
{'Turbidity Value': 91}
pH Value of Water 14
Turbidity Value of Water 91
pH Value of Water 14
Turbidity Value of Water 91
{'pH Value': 14}
{'Turbidity Value': 62}
pH Value of Water 14
Turbidity Value of Water 62
pH Value of Water 14
Turbidity Value of Water 62
{'pH Value': 3}
{'Turbidity Value': 66}
pH Value of Water 3
Turbidity Value of Water 66
pH Value of Water 3
Turbidity Value of Water 66
{'pH Value': 13}
{'Turbidity Value': 66}
pH Value of Water 13
Turbidity Value of Water 66
pH Value of Water 13
Turbidity Value of Water 66
{'pH Value': 7}
{'Turbidity Value': 60}
pH Value of Water 7
Turbidity Value of Water 60
pH Value of Water 7
Turbidity Value of Water 60
```

NODE RED

Node-red is created and the iot device is connected to ibm watson iot platform and connected to node-red then we the see the out put displayed on the screen in ibm watson iot platform in the recent events

We can see the same output in node-red

IBM MIT App Inventor Application Details - IBM Clo Node-RED : node-red-hviji-2 IBM Watson IoT Platform

node-red-hviji-2022-11-09.eu-gb.mybluemix.net/red/#flow/f7984e0085320a90

Node-RED

Flow 6

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

- function

Flow 6 nodes:

- IBM IoT (connected)
- msg.payload
- PHvalue
- randomNumber
- MIT App
- mit app event
- http
- Light ON
- Light OFF
- IBM IoT (connected)
- msg.payload
- http

debug

selected nodes

all

undefined

11/16/2022, 9:35:58 PM node: 84500173097b8665
iot-
2/1type/RiverWater/id/Monitoring/evt/IoTSensor/fmt/json :
msg.payload : undefined

undefined

11/16/2022, 9:36:08 PM node: 84500173097b8665
iot-
2/1type/RiverWater/id/Monitoring/evt/IoTSensor/fmt/json :
msg.payload : Object
{ pHValue: 2, Turbidity Value: 27 }

11/16/2022, 9:36:08 PM node: 84500173097b8665
iot-
2/1type/RiverWater/id/Monitoring/evt/IoTSensor/fmt/json :
msg.payload : undefined

undefined

11/16/2022, 9:36:08 PM node: 84500173097b8665
iot-
2/1type/RiverWater/id/Monitoring/evt/IoTSensor/fmt/json :
msg.payload : undefined

undefined

