

## SPRINT 2

**TEAM ID: PNT2022TMID42971**

### REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

#### **AIM:**

To create device in the IOT Watson Platform and Configure Node Red Services.

#### **REQUIREMENT:**

IBM cloud, IBM IOT WATSON PLATFORM,NODE RED SERVICES.

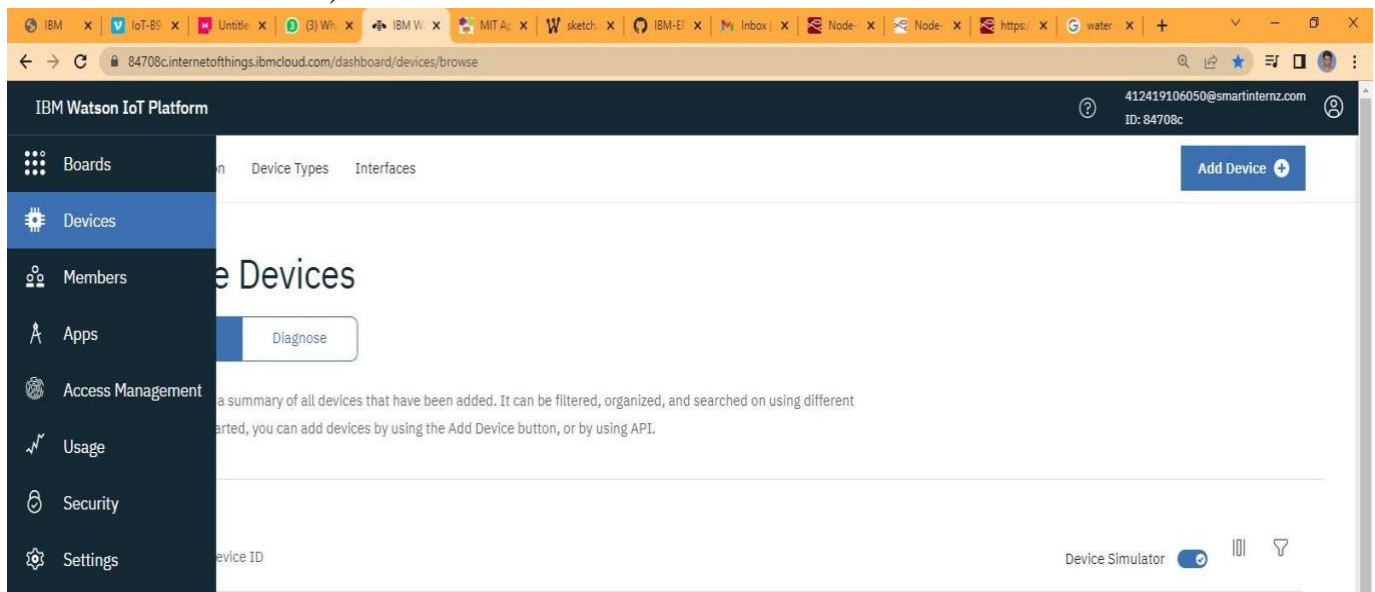
#### **WORKFLOW:**

##### **STEP 1:**

Log on to IBM cloud and create IBM Watson IOT Platform from IBM cloud Dashboard.

##### **STEP 2:**

After Creating IBM Watson IOT Platform,create an Organization (ex.84708c ID: 84708c Bluemix Free)



##### **STEP 3:**

Create an device IBM IOT PALTFORM.

Add Device

Identity
Device Information
Security
Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type

Select or create a device type...

Device ID

Enter Device ID

Cancel

Next

TYPE THE REQUIRED FIELDS (TYPE: ESP32 , ID: 1234)  
GIVE AUTH-TOKEN.

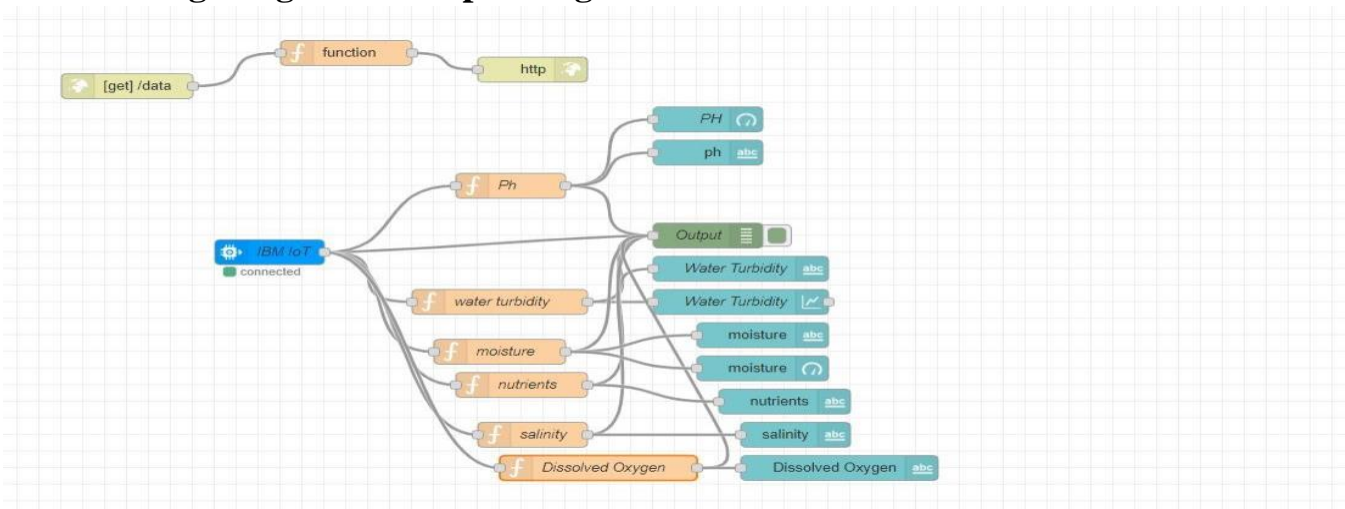
#### STEP 4:

NODE RED SERVICE

- INSTALL IBM IOT IN MANGE PALETTE. ●
- INSTALL NODE RED DASHBOARD.

#### STEP 5:

Configuring the corresponding nodes



#### STEP 6:

Deploy the Services and verify the output values.

**OUTPUT IN IBM WATSON IOT PLATFORM:**

IBM Watson IoT Platform

412419106050@smartinternz.com  
ID: 84708c

Browse

Action

Device Types

Interfaces

Add Device +

Identity

Device Information

Recent Events

State

Logs

X

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	{"Water_Turbidity":73,"Ph":4,"moisture":60,"nutr...	json	a few seconds ago
event_1	{"Water_Turbidity":71,"Ph":4,"moisture":75,"nutr...	json	a few seconds ago
event_1	{"Water_Turbidity":31,"Ph":11,"moisture":60,"nu...	json	a few seconds ago
event_1	{"Water_Turbidity":30,"Ph":8,"moisture":2,"nutri...	json	a few seconds ago
event_1	{"Water_Turbidity":62,"Ph":13,"moisture":2,"nutr...	json	a few seconds ago

Event Payload

Event Nameevent\_1

Time ReceivedNov 15, 2022 10:05 PM

12345678

```
{  
  "Water_Turbidity": 97,  
  "Ph": 6,  
  "moisture": 10,  
  "nutrients": 85,  
  "salinity": 47,  
  "dissolved_O2": 53  
}
```