

## **SPRINT 2**

**TEAM ID: PNT2022TMID51591**

### **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.

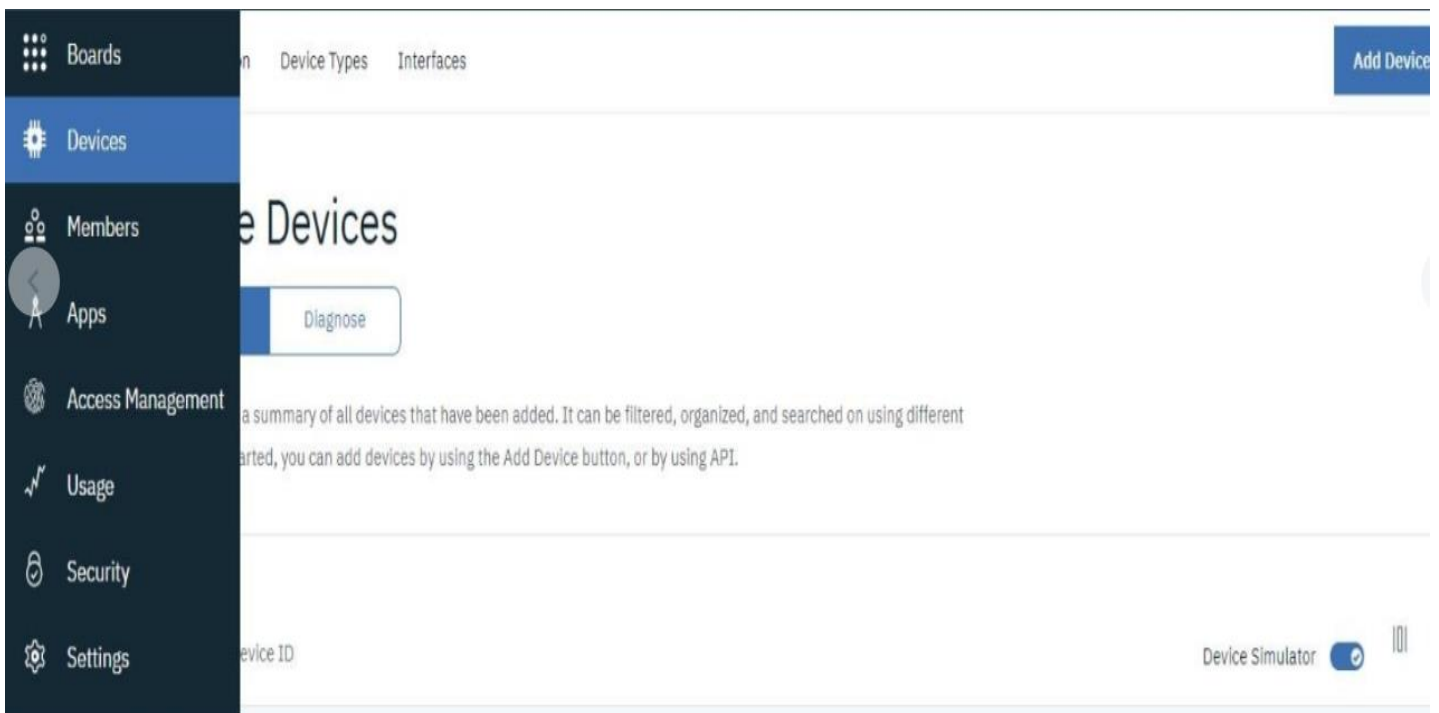
#### **WORKFLOW:**

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

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

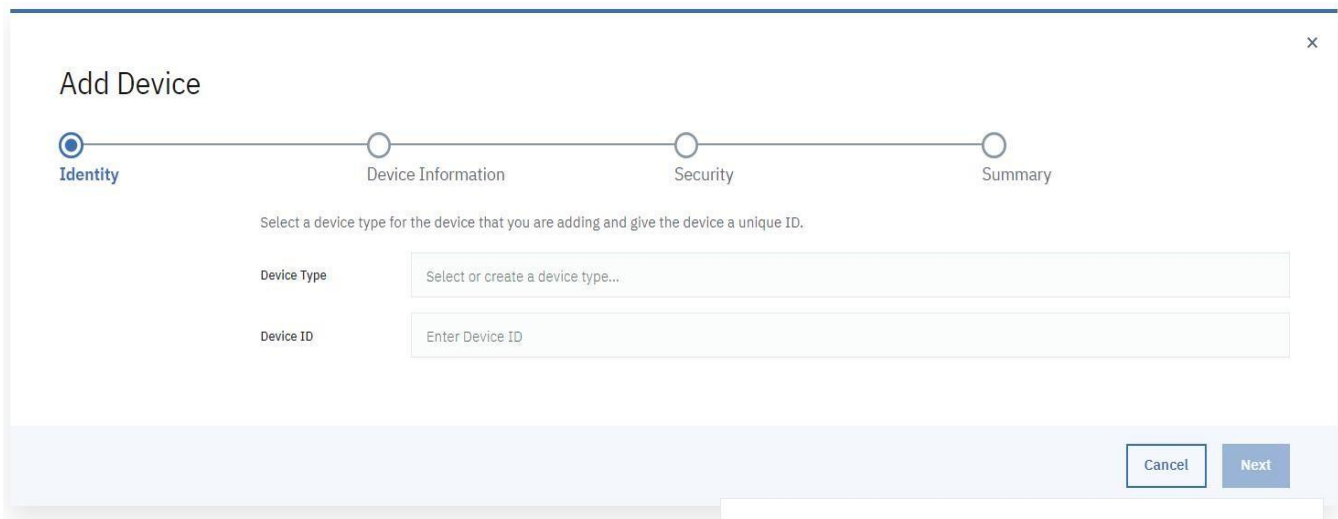
##### **STEP 2:**

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



### STEP 3:

Create an device IBM IOT PALTFORM.



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

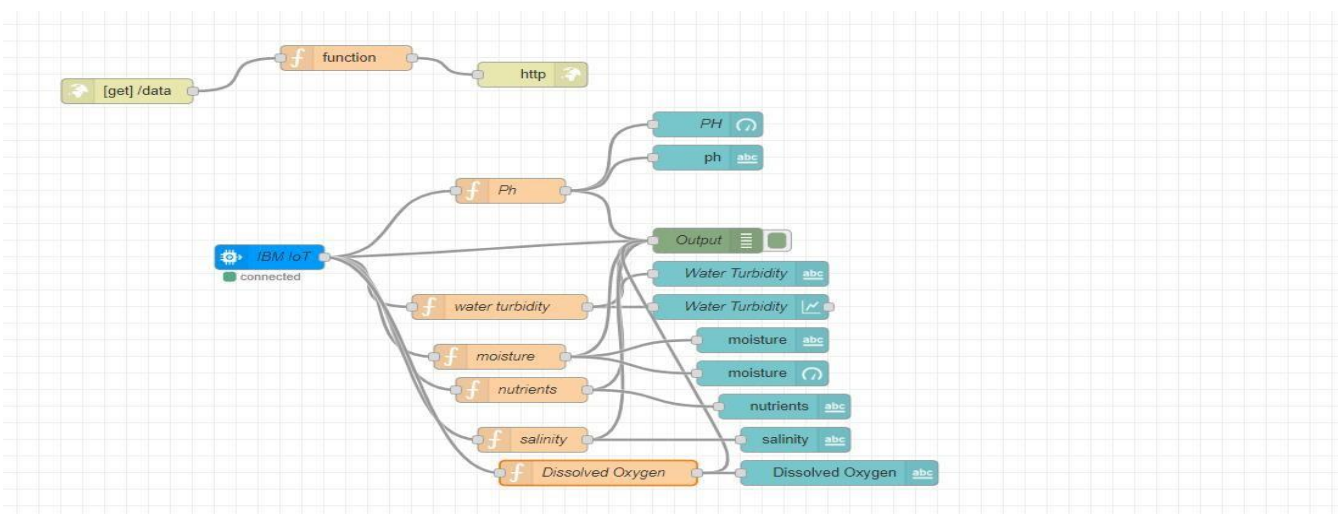
### STEP 4:

NODE RED SERVICE

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

### STEP 5:

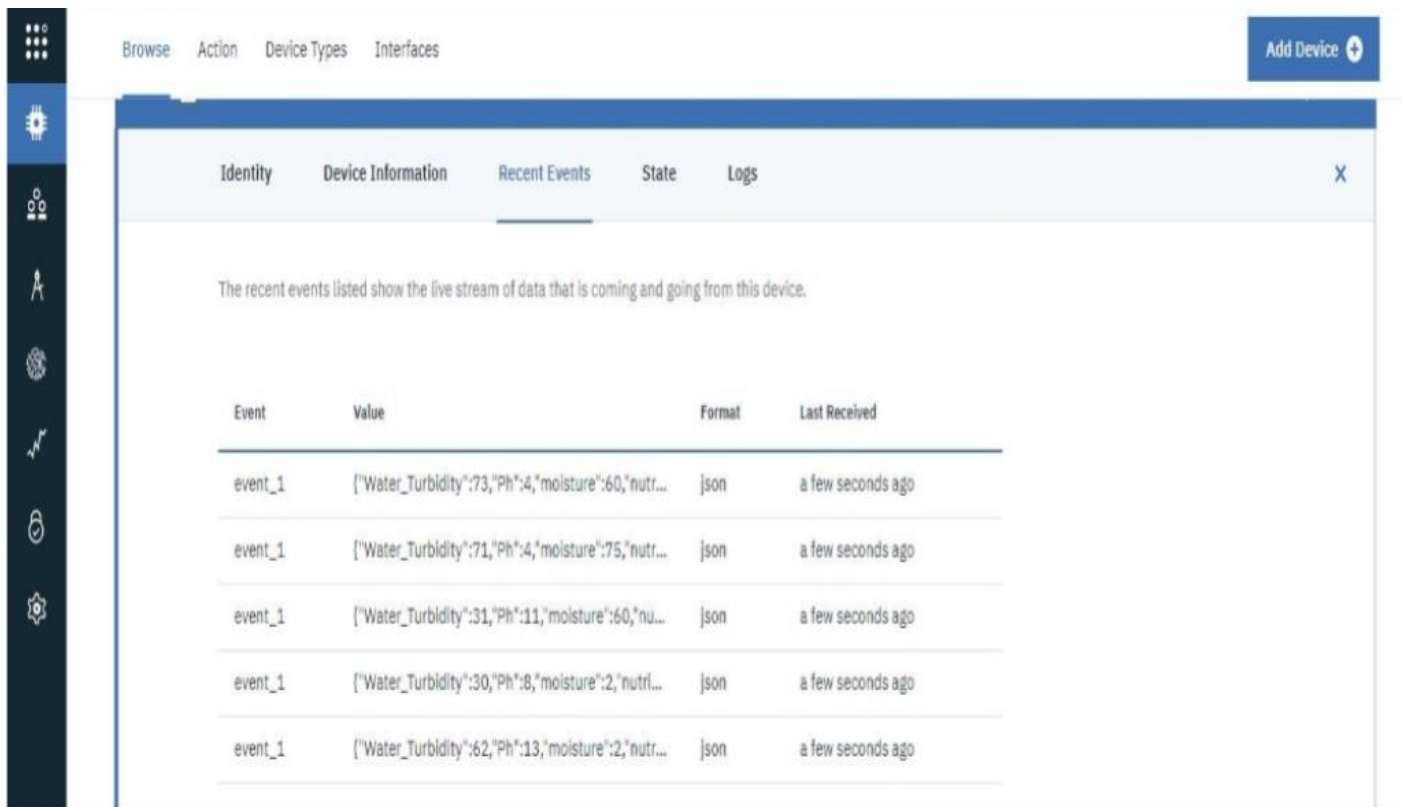
Configuring the corresponding nodes



### STEP 6:

Deploy the Services and verify the output values.

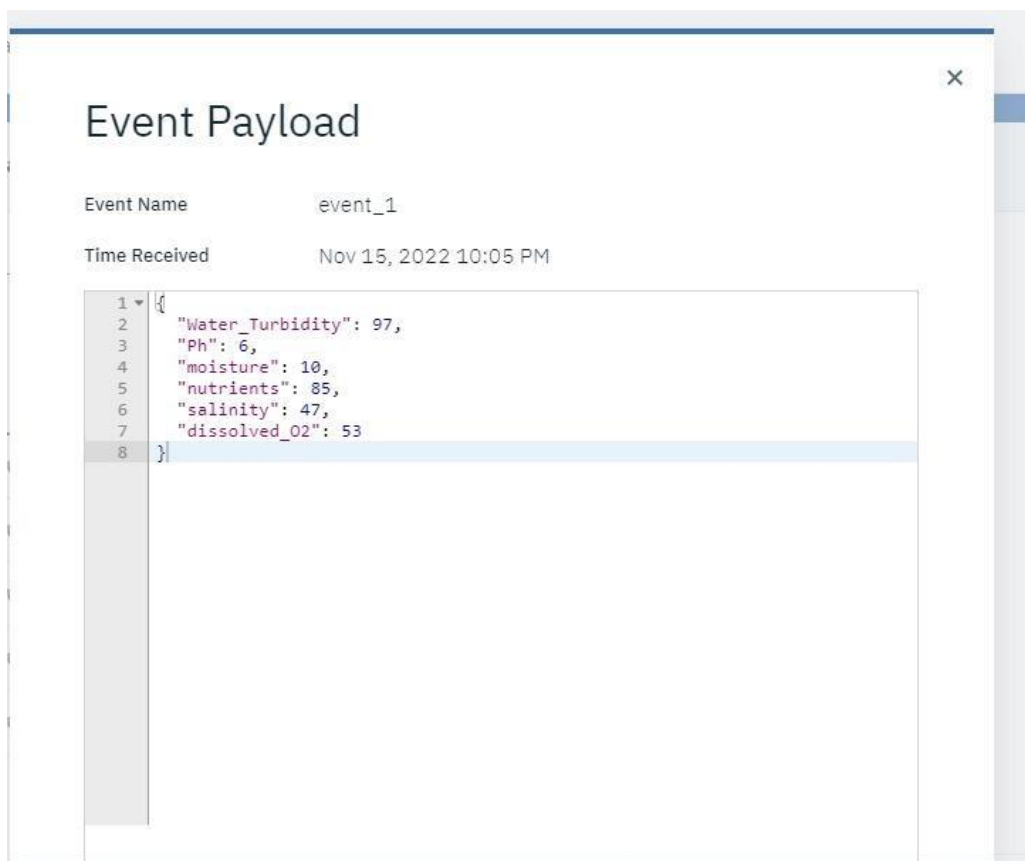
## OUTPUT IN IBM WATSON IOT PLATFORM:



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,"nutr...	json	a few seconds ago
event_1	["Water_Turbidity":62,"Ph":13,"moisture":2,"nutr...	json	a few seconds ago



### Event Payload X

Event Name event\_1

Time Received Nov 15, 2022 10:05 PM

```
1 {  
2   "Water_Turbidity": 97,  
3   "Ph": 6,  
4   "moisture": 10,  
5   "nutrients": 85,  
6   "salinity": 47,  
7   "dissolved_O2": 53  
8 }
```