

## **SPRINT 2**

**TEAM ID: PNT2022TMID11075**

### **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.

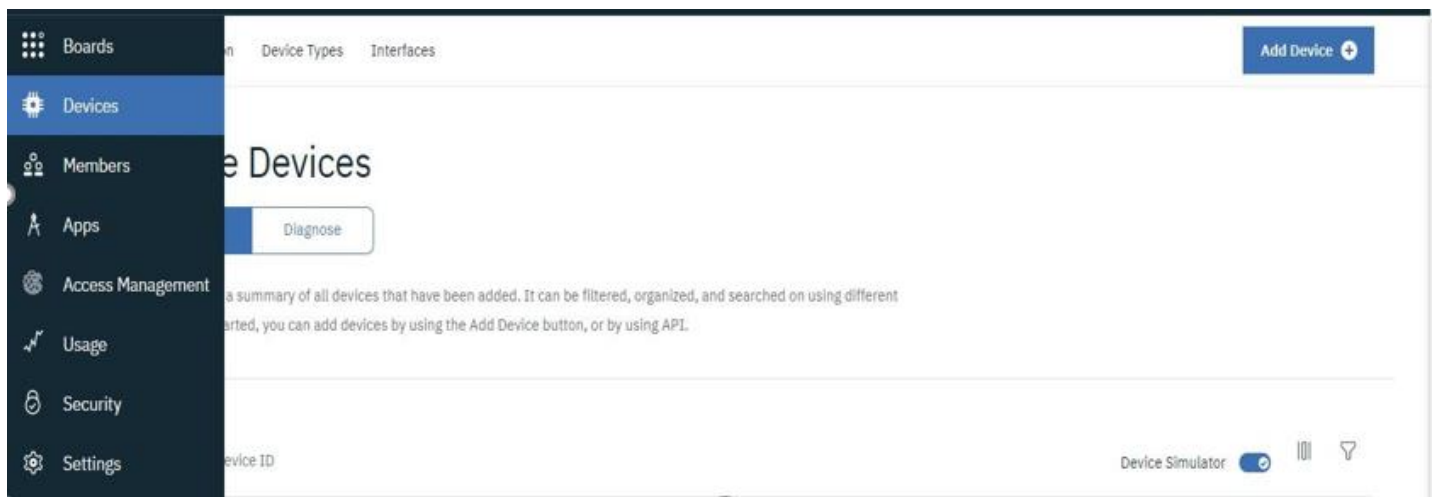
#### **WORKFLOW:**

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

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

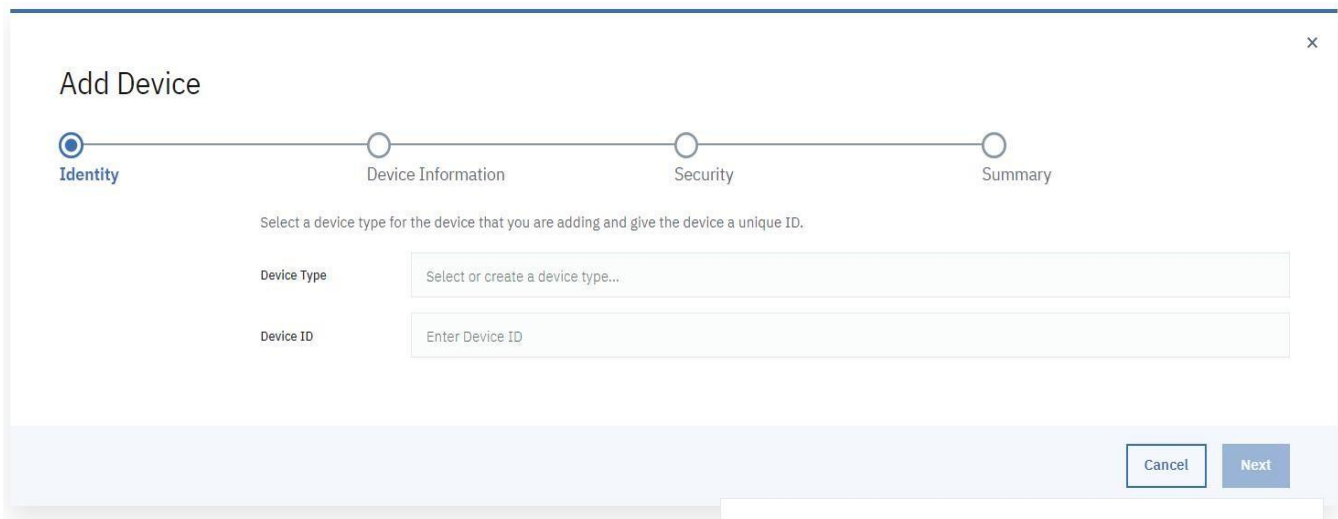
##### **STEP 2:**

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.

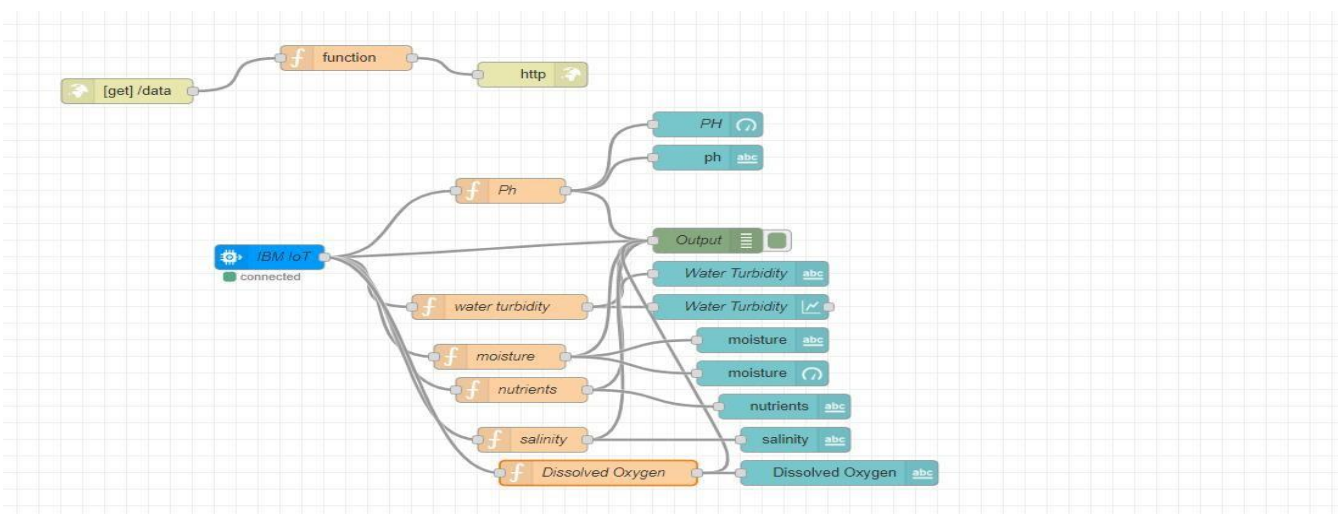
### STEP 4:

NODE RED SERVICE

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

### STEP 5:

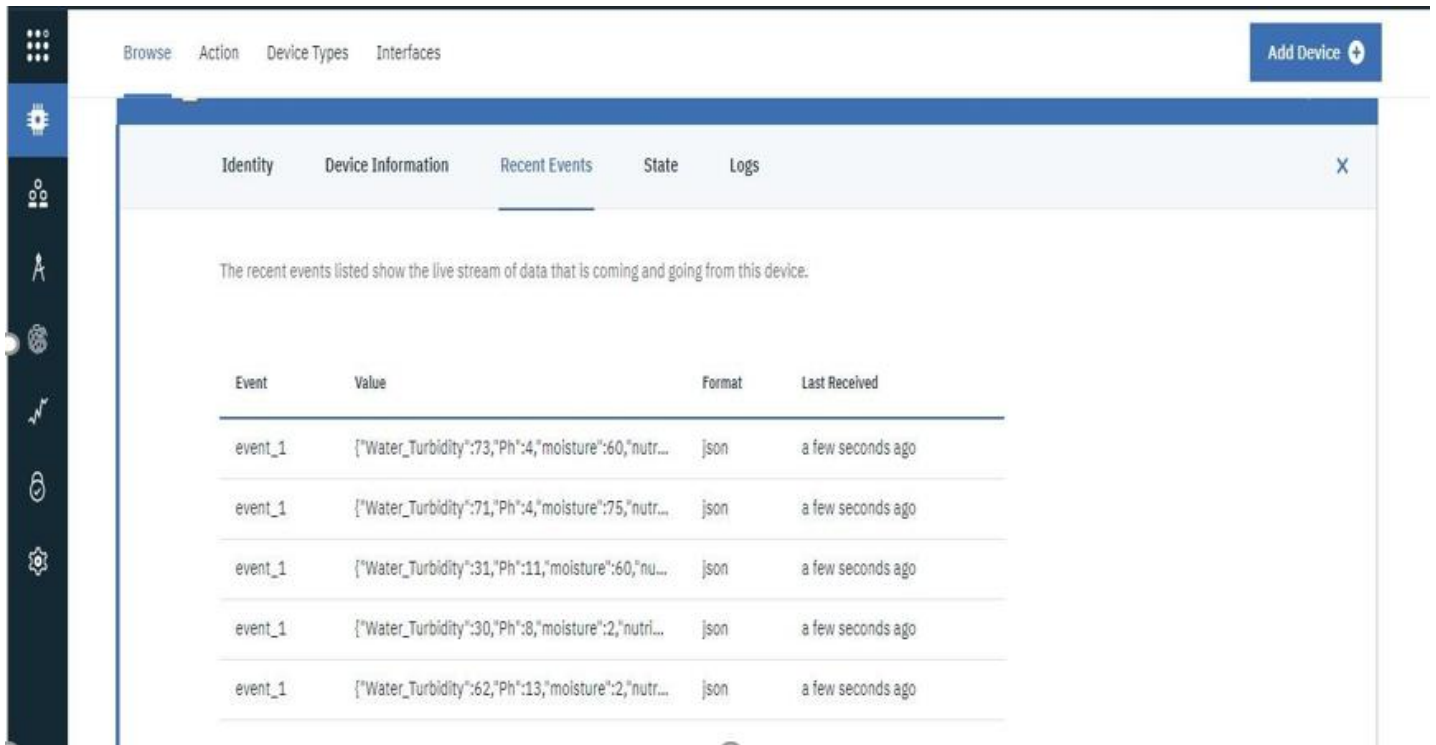
Configuring the corresponding nodes



### STEP 6:

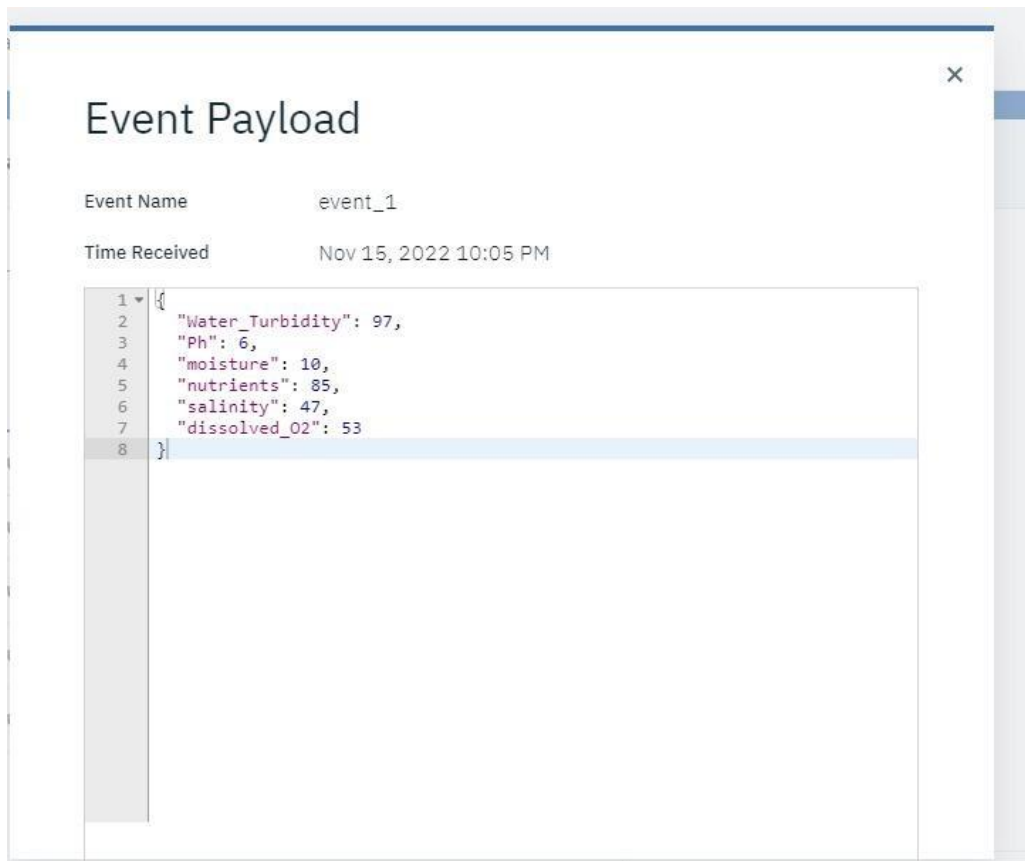
Deploy the Services and verify the output values.

## OUTPUT IN IBM WATSON IOT PLATFORM:



The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces', along with an 'Add Device' button. The left sidebar contains various icons for navigation. The main content area is titled 'Recent Events' and shows a table of events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. The events listed are all named 'event\_1' and contain JSON payloads with sensor data. The 'Last Received' column indicates that the events were received 'a few seconds ago'.

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



The screenshot shows a dialog box titled 'Event Payload'. It displays the event name 'event\_1' and the time received 'Nov 15, 2022 10:05 PM'. Below this, a JSON payload is shown in a code editor. The payload contains sensor data for 'Water\_Turbidity', 'Ph', 'moisture', 'nutrients', 'salinity', and 'dissolved\_O2'.

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