

SPRINT 2

TEAM ID: PNT2022TMID10956

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.

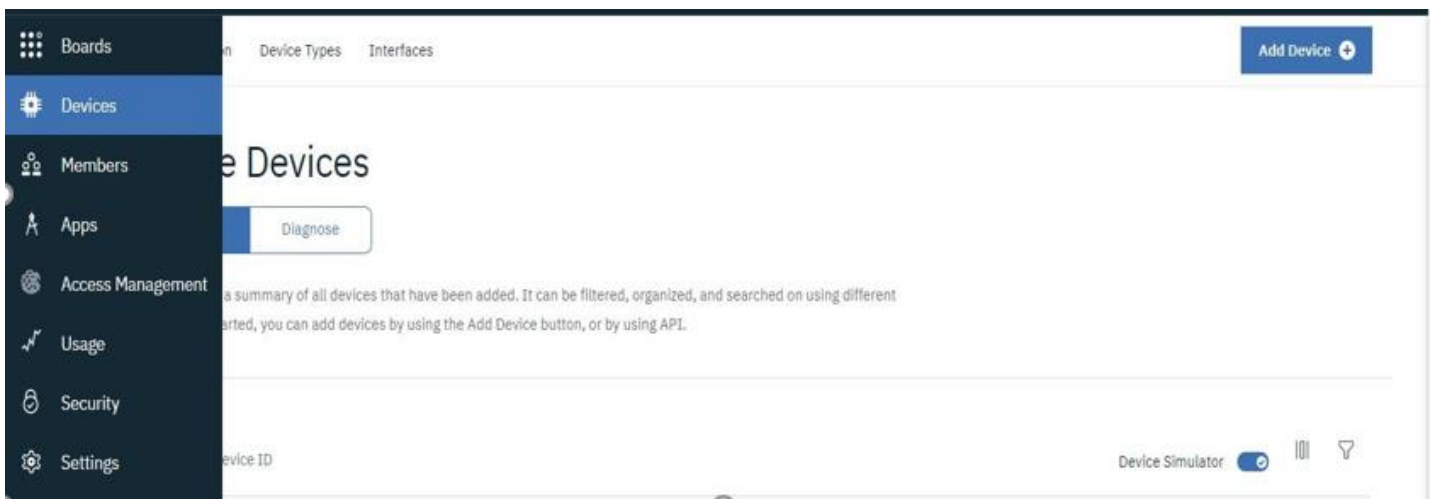
WORKFLOW:

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.

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Add Device

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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.

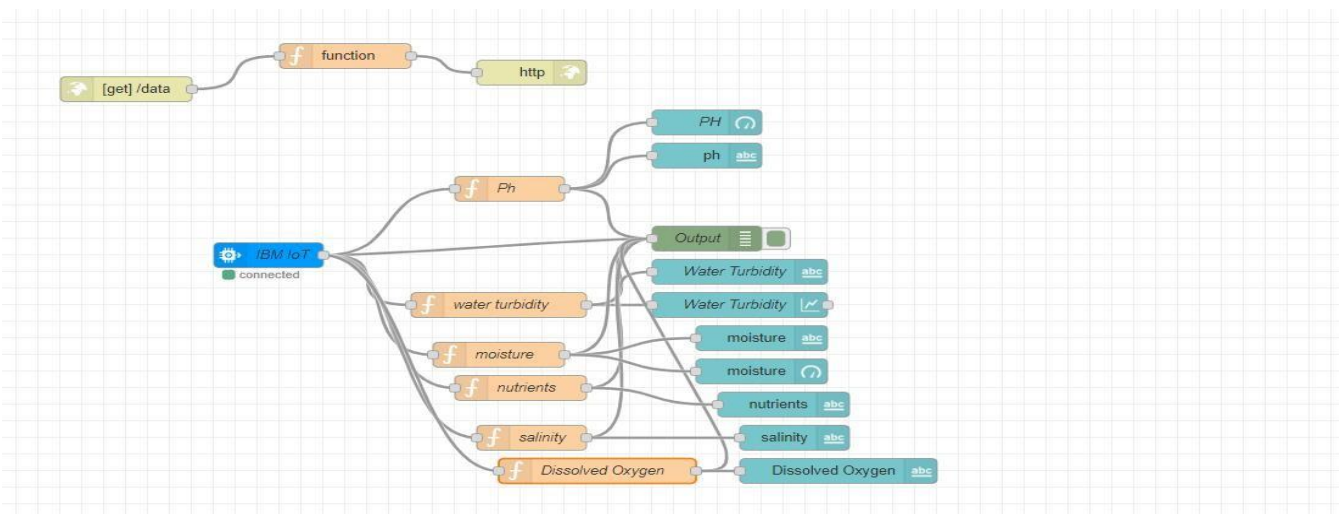
STEP 4:

NODE RED SERVICE

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

STEP 5:

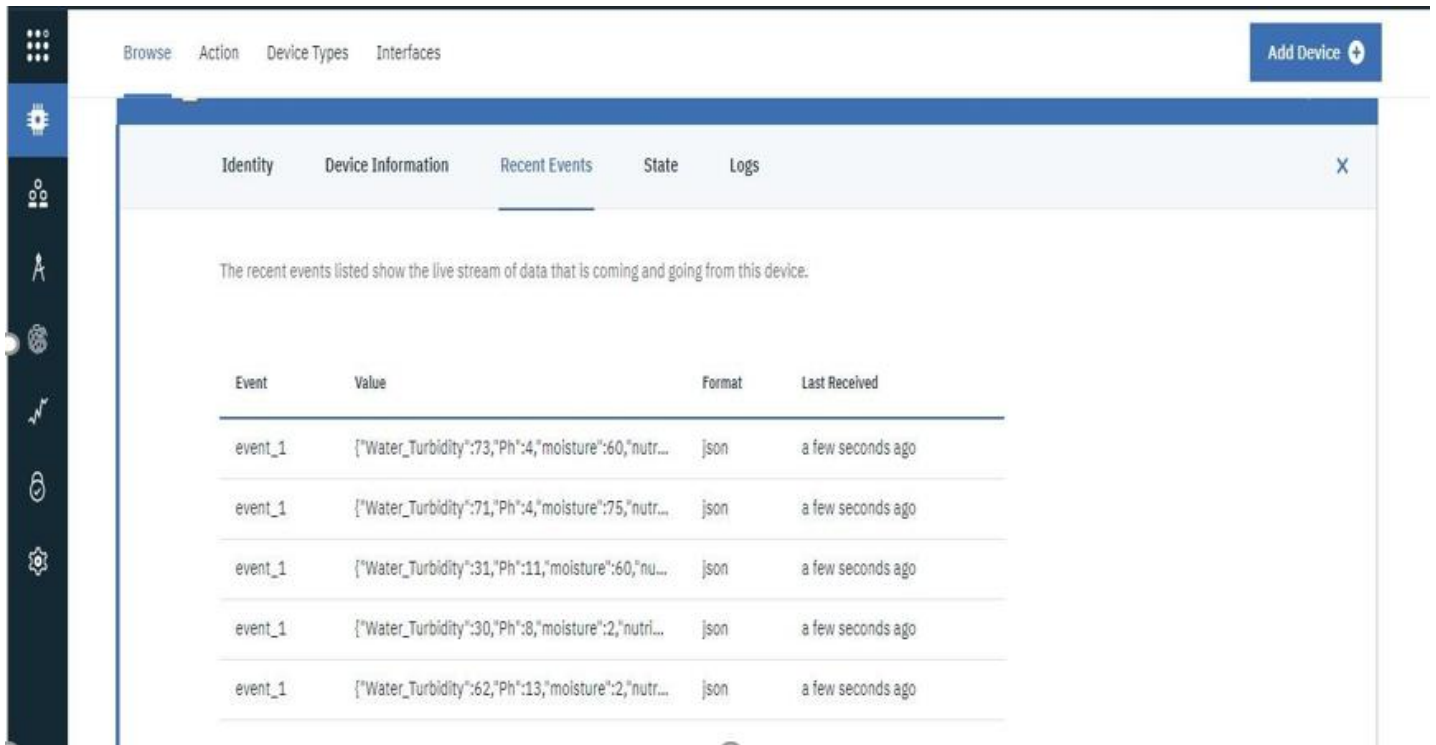
Configuring the corresponding nodes



STEP 6:

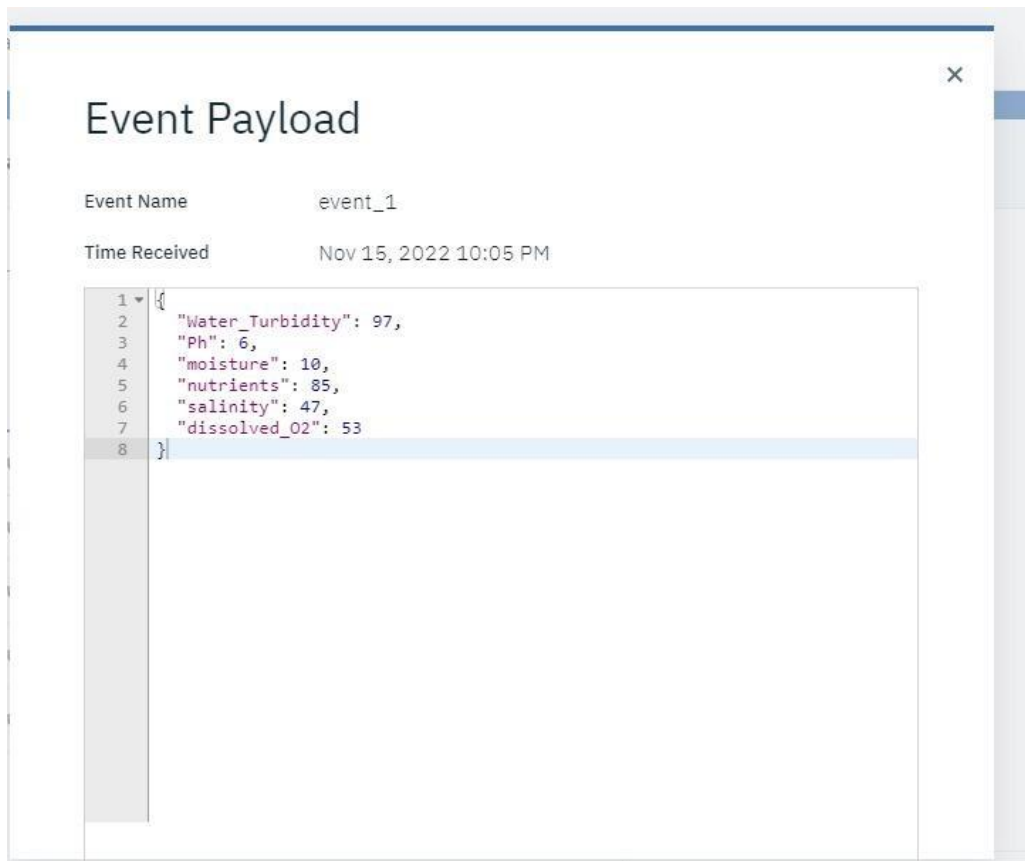
Deploy the Services and verify the output values.

OUTPUT IN IBM WATSON IOT PLATFORM:



The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A blue 'Add Device' button is in the top right. The left sidebar contains various icons. The main content area is titled 'Recent Events' and displays a table of events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. The events are listed as 'event_1' with JSON payloads containing sensor data like 'Water_Turbidity', 'Ph', 'moisture', 'nutrients', 'salinity', and 'dissolved_O2'. The 'Last Received' column indicates 'a few seconds ago' for each event.

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' as 'event_1' and the 'Time Received' as 'Nov 15, 2022 10:05 PM'. The main content is a JSON payload for the event, which is displayed in a code editor with line numbers 1 through 8. 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 }
```