

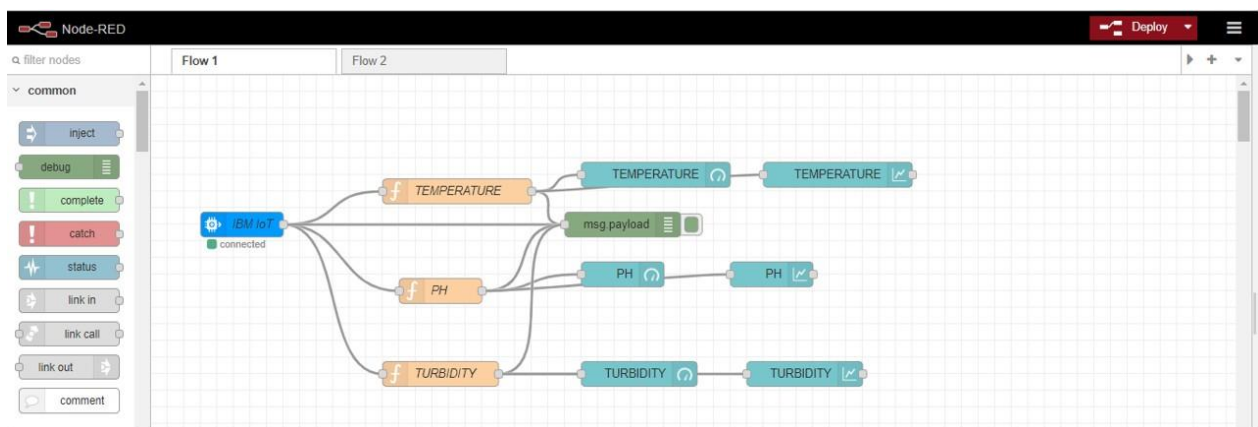
Project Development Phase

Sprint-3

Team ID	PNT2022TMID22083
Project Name	Real-Time River Water Quality Monitoring and Control System

Design of web application using Node-Red:

Using Dashboard nodes for create UI(Web application):



IBMIOT input node configuration:

Edit ibmiot in node

Delete

Cancel

Done

⚙ Properties

⚙

📄

🖼

🔑 Authentication

API Key

▼

🔑 API Key

leo1

▼

✎

⚙ Input Type

Device Event

▼

🔑 Device Type

☐ All or

jashwanth_123

👤 Device Id

☐ All or

naveen_123

📋 Event

☒ All or

+

📄 Format

☐ All or

json

⚙ QoS

0

▼

🏠 Name

IBM IoT

🏠 Service

registered

☐ Enabled

Debug Node output:

all nodes

all

11/14/2022, 10:38:23 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : number	
1	
11/14/2022, 10:38:23 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : number	
10	
11/14/2022, 10:38:23 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : number	
63	
11/14/2022, 10:38:24 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : Object	
▶ { TEMPERATURE: 69, PH : 20, TURBIDITY : 79 }	
11/14/2022, 10:38:24 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : number	
69	
11/14/2022, 10:38:24 AM	node: f2f2649a.0d0d98
iot-2/type/jashwanth_123/id/naveen_123/evt/IOTsensor/fmt/json :	
msg.payload : number	
20	

Temperature function node script:

Edit function node

Delete

Cancel

Done

⚙ Properties

⚙

📄

🖼

📁 Name

Name

📄

⚙ Setup

On Start

On Message

On Stop

1 msg.payload={"temperature":global.get('temp'),

2 "PH ":global.get('ph'),

3 "Turbidity":global.get('turbidity')}

4

5 ^ }

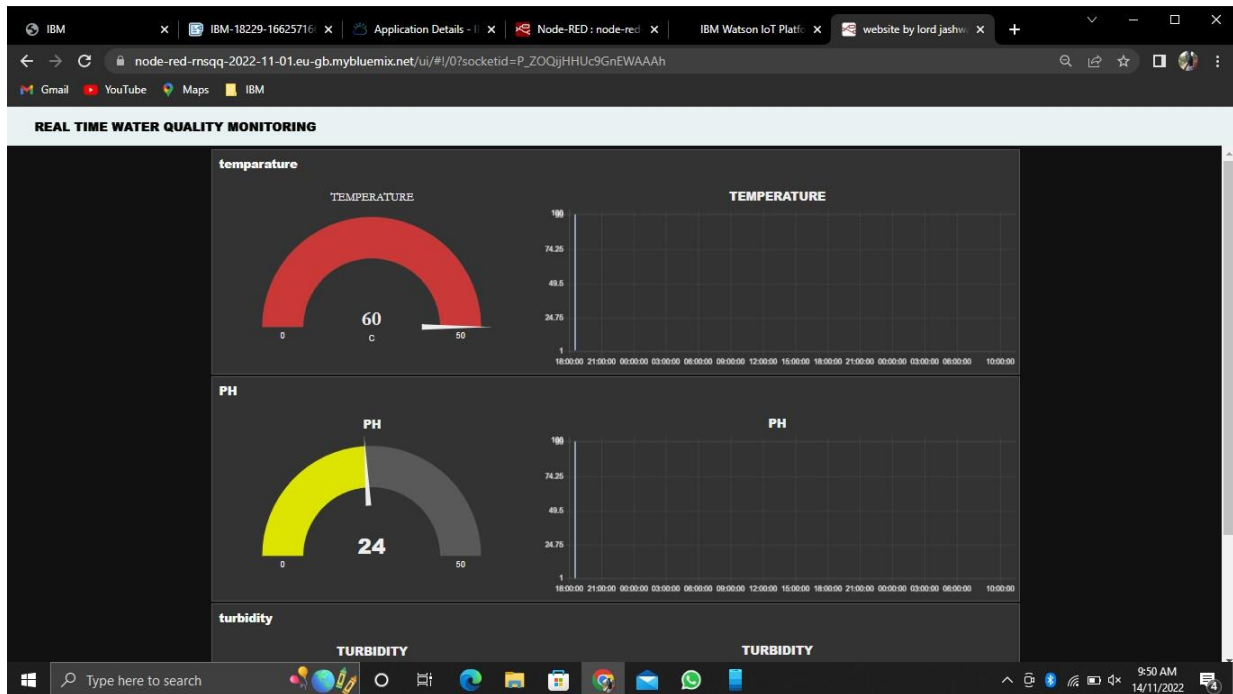
6 return msg;

IBM Watson IoT Platform(Sensor readings stored in cloud):

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for IBM Cloud, Service Details - IBM Cloud, IBM Watson IoT Platform, and Node-RED: node-red-msq-20. The main header shows the user's email (vh10385_cse19@velhightech.com) and ID (g8s32x). The left sidebar contains icons for various IoT functions. The main content area is titled 'Browse' and features a table of sensor readings. The table has four columns: Event, Value, Format, and Last Received. It lists five IoTsensor events, each with a JSON value containing temperature, pH, and turbidity data, all in 'json' format and received 'a few seconds ago'. Below the table, a pagination bar indicates 'Items per page: 50' and '1-1 of 1 item'. At the bottom, a status bar shows '0 Simulations running'. The Windows taskbar at the very bottom includes a search bar and various application icons.

Event	Value	Format	Last Received
IoTsensor	{"TEMPERATURE":55,"PH":46,"TURBIDITY":18}	json	a few seconds ago
IoTsensor	{"TEMPERATURE":18,"PH":78,"TURBIDITY":16}	json	a few seconds ago
IoTsensor	{"TEMPERATURE":7,"PH":8,"TURBIDITY":29}	json	a few seconds ago
IoTsensor	{"TEMPERATURE":74,"PH":39,"TURBIDITY":35}	json	a few seconds ago
IoTsensor	{"TEMPERATURE":55,"PH":19,"TURBIDITY":12}	json	a few seconds ago

Web Application (User Interface):



Web UI link:

[click here](#)