

SPRINT 2

TEAM ID	PNT2022TMID36752
PROJECT NAME	REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM
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CODE

<https://wokwi.com/projects/348635341987512915>

The screenshot displays the Wokwi web interface for a project titled "sketch.ino". The interface is divided into two main sections: a code editor on the left and a simulation window on the right.

Code Editor (sketch.ino):

```
1 #include <WiFi.h> //library for wifi
2 #include <PubSubClient.h> //library for MQTT
3 #include "DHT.h" // Library for dht11
4 #define DHTPIN 15 // what pin we're connected to
5 #define DHTTYPE DHT22 // define type of sensor DHT 11
6 #define LED 2
7 DHT dht (DHTPIN, DHTTYPE); // creating the instance by passing pin
8
9 void callback(char* subscribetopic, byte* payload, unsigned int pa
10
11 //-----credentials of IBM Accounts-----
12
13 #define ORG "910vsj" //IBM ORGANITION ID
14 #define DEVICE_TYPE "demo123" //Device type mentioned in ibm watson
15 #define DEVICE_ID "demo123" //Device ID mentioned in ibm watson IOT
16 #define TOKEN "demo1234" //Token
17 String data3;
18 float t,h;
19
20
21 //----- Customise the above values -----
22 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; //
23 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and
24 char subscribetopic[] = "iot-2/cmd/command/fmt/String"; // cmd REF
25 char authMethod[] = "use-token-auth"; // authentication method
```

Simulation Window:

The simulation window shows a virtual representation of an ESP32 development board connected to a DHT22 digital temperature and humidity sensor. The sensor is connected to the board via a breadboard with several resistors. The simulation is running, as indicated by the play button icon in the top left of the window.

System Information:

The bottom of the screenshot shows a Windows taskbar with the date and time: 19 November 2022, Saturday, 08:55.

<https://node-red-eheqi-2022-11-12.eu-gb.mybluemix.net/red/#flow/366dfb6a751f52c5>

The screenshot displays a Node-RED web interface in a browser. The main workspace shows a flow named 'Flow 1' with the following components:

- msg payload** node connected to two **function** nodes.
- The first **function** node is connected to a **Humidity** gauge node.
- The second **function** node is connected to a **temperature** gauge node.
- A **[get] /sensor** node is connected to a **http** node.
- A **function** node is connected to the **http** node.

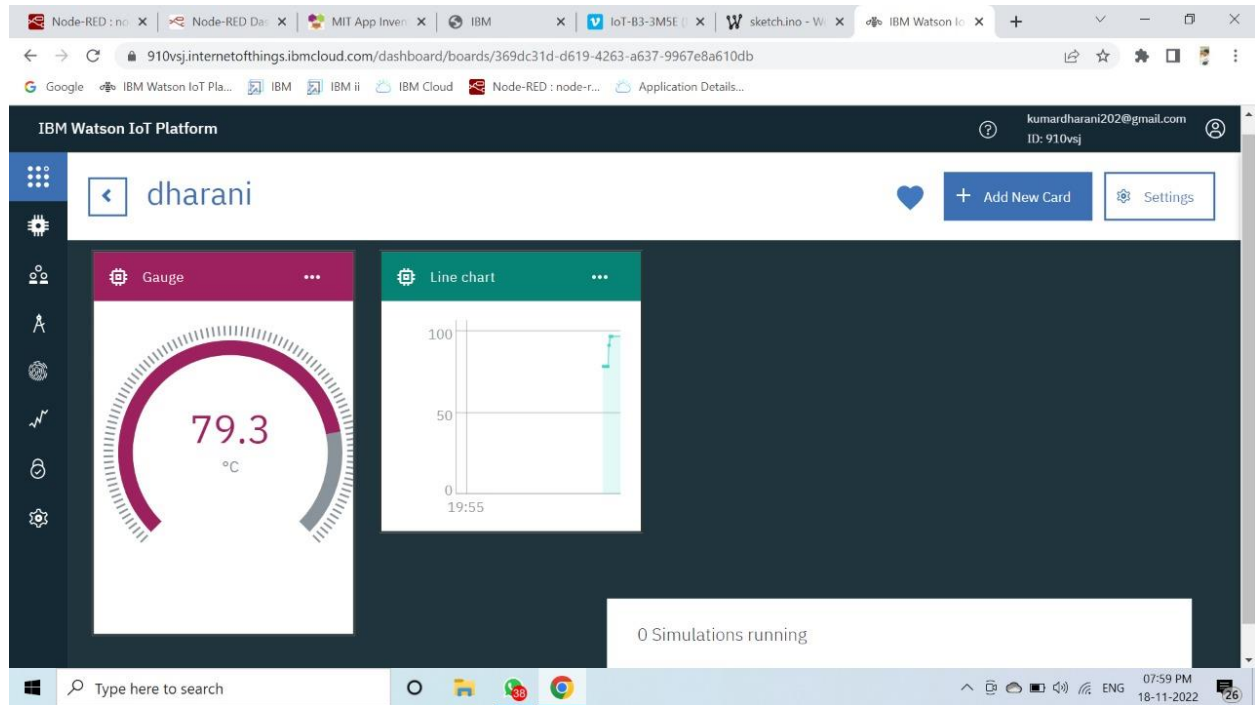
The left sidebar contains a list of available nodes: button, dropdown, switch, slider, numeric, text input, date picker, colour picker, form, text, gauge, chart, audio out, notification, ui control, and template.

The right sidebar shows the **debug** console with the following log entries:

```
let 2fypdemo123fdbdemo123evlDataFnmpson: msg payload: Object
* { temperature: 38.9, humidity: 69.5 }
11/18/2022, 8:37:31 PM node: 2da5e920b1cd029e
function: (error)
"TypeError: Cannot read properties of undefined
(reading 'temp')"
```

The bottom of the image shows a Windows taskbar with the search bar and system tray icons, including the date and time: 08:37 PM 18-11-2022.

OUTPUT



URL REFERENCE

<https://wokwi.com/projects/348674569513468499>