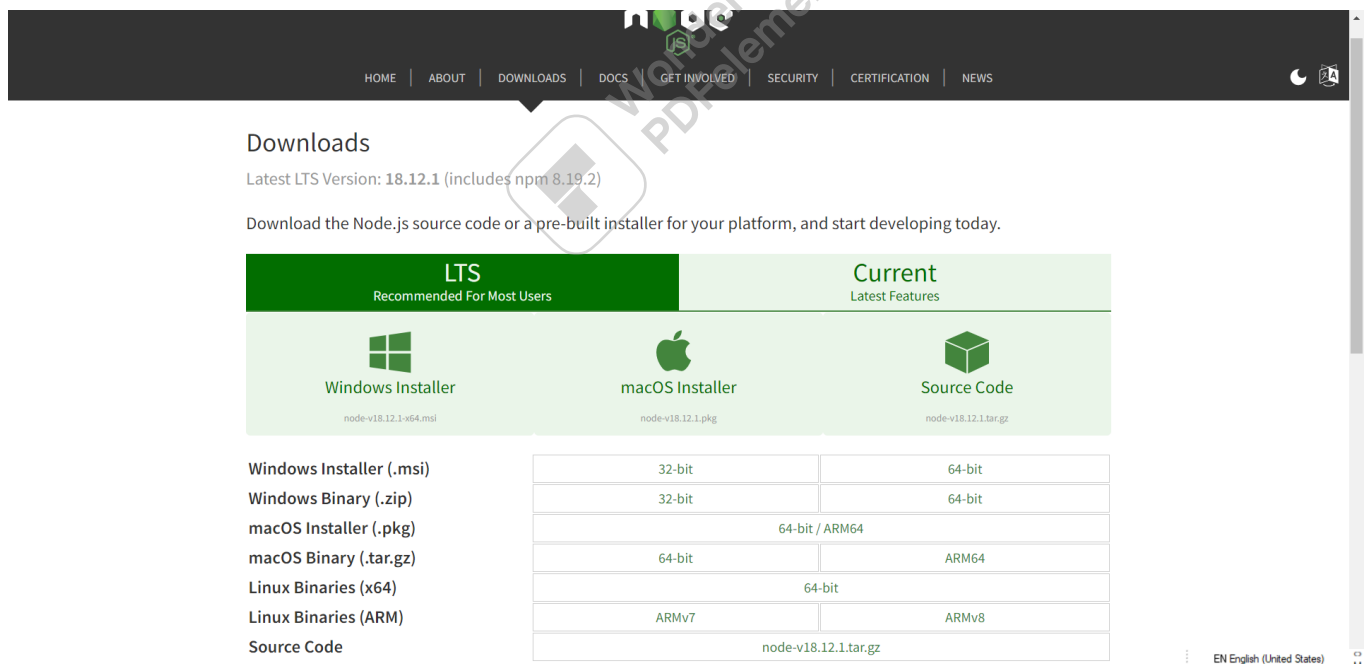


## SPRINT-2

Date	16 November 2022
TEAM ID	PNT2022TMID46314
Project Name	Real time communication system powered by Ai specailly abled
Maximum mark	20 marks

### STEP1: Download and Install NODE JS.



The screenshot shows the Node.js Downloads page. At the top, there's a navigation bar with links: HOME, ABOUT, DOWNLOADS, DOCS, GET INVOLVED, SECURITY, CERTIFICATION, and NEWS. Below the navigation bar, the page title is "Downloads". Underneath, it says "Latest LTS Version: 18.12.1 (includes npm 8.19.2)". A paragraph follows: "Download the Node.js source code or a pre-built installer for your platform, and start developing today." Below this, there are two main sections: "LTS Recommended For Most Users" and "Current Latest Features". Under the "LTS" section, there are three options: "Windows Installer" (node-v18.12.1-x64.msi), "macOS Installer" (node-v18.12.1.pkg), and "Source Code" (node-v18.12.1.tar.gz). Under the "Current" section, there are three options: "Windows Installer" (node-v18.12.1-x64.msi), "macOS Installer" (node-v18.12.1.pkg), and "Source Code" (node-v18.12.1.tar.gz). Below these options, there is a table showing the available binaries for different platforms and architectures. The table has two columns: "32-bit" and "64-bit". The rows are: "32-bit", "64-bit", "64-bit / ARM64", "64-bit", "ARMv7", "ARMv8", and "node-v18.12.1.tar.gz".

Downloads

Latest LTS Version: 18.12.1 (includes npm 8.19.2)

Download the Node.js source code or a pre-built installer for your platform, and start developing today.

**LTS**  
Recommended For Most Users

**Current**  
Latest Features

**Windows Installer**  
node-v18.12.1-x64.msi

**macOS Installer**  
node-v18.12.1.pkg

**Source Code**  
node-v18.12.1.tar.gz

Windows Installer (.msi)  
Windows Binary (.zip)  
macOS Installer (.pkg)  
macOS Binary (.tar.gz)  
Linux Binaries (x64)  
Linux Binaries (ARM)  
Source Code

32-bit	64-bit
32-bit	64-bit
64-bit / ARM64	
64-bit	ARM64
64-bit	
ARMv7	ARMv8
node-v18.12.1.tar.gz	

EN English (United States)

**STEP2: Setup node.js and configure command prompt for error check.open node-red from the generated link.**

```
node-red
4 Nov 18:48:05 - [info] Node-RED version: v3.0.2
4 Nov 18:48:05 - [info] Node.js version: v18.12.0
4 Nov 18:48:05 - [info] Windows_NT 10.0.19044 x64 LE
4 Nov 18:48:26 - [info] Loading palette nodes
4 Nov 18:48:44 - [info] Settings file : C:\Users\ELCOT\.node-red\settings.js
4 Nov 18:48:45 - [info] Context store : 'default' [module=memory]
4 Nov 18:48:45 - [info] User directory : \Users\ELCOT\.node-red
4 Nov 18:48:45 - [warn] Projects disabled : editorTheme.projects.enabled=false
4 Nov 18:48:45 - [info] Flows file : \Users\ELCOT\.node-red\flows.json
4 Nov 18:48:45 - [info] Creating new flow file
4 Nov 18:48:45 - [warn]

-----
Your flow credentials file is encrypted using a system-generated key.

If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.
-----

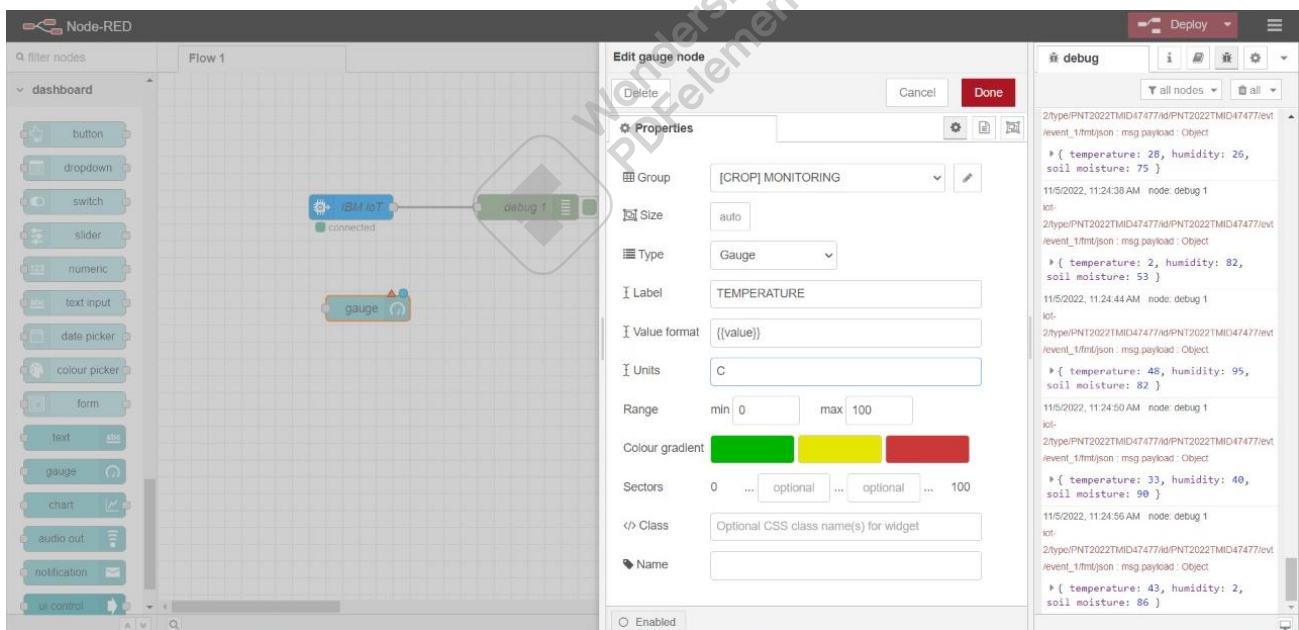
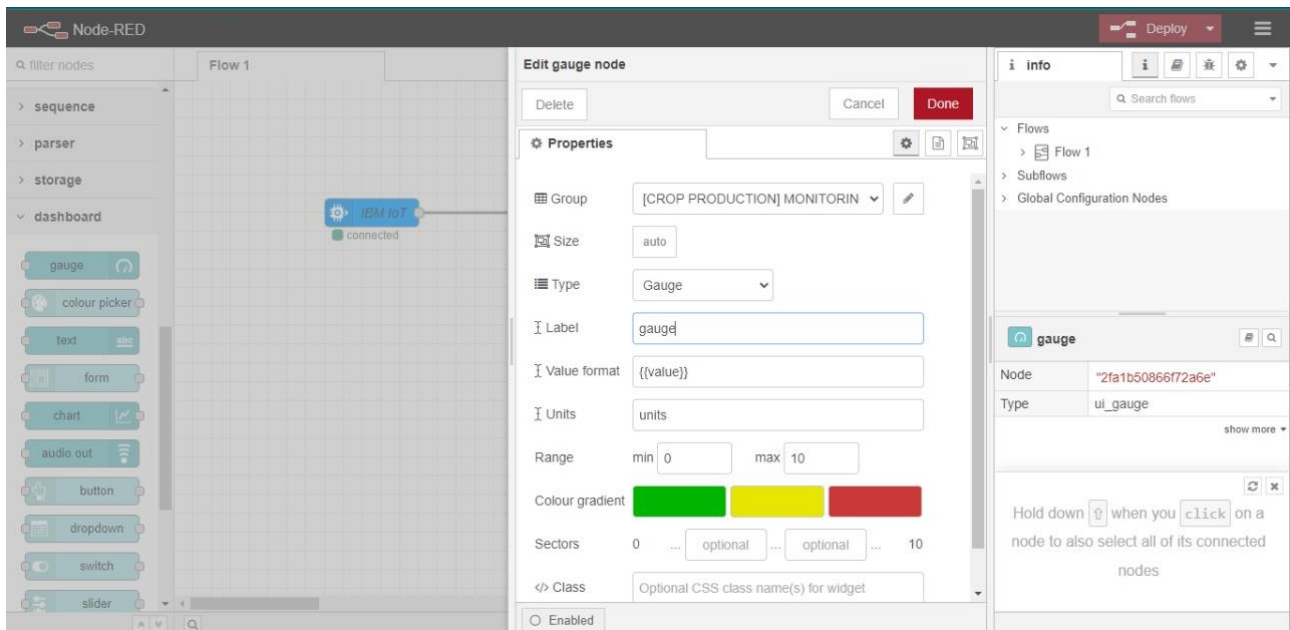
4 Nov 18:48:45 - [warn] Encrypted credentials not found
4 Nov 18:48:45 - [info] Starting flows
4 Nov 18:48:46 - [info] Started flows
4 Nov 18:48:46 - [info] Server now running at http://127.0.0.1:1880/
```

**STEP3: Connect ibmiot in and Debug 1 and Deploy.**

The screenshot shows the Node-RED web interface. On the left, the 'common' nodes palette is visible. In the center workspace, a flow named 'Flow 1' contains an 'IBM IoT' node (with a green 'connected' status) connected to a 'debug 1' node. On the right, the 'debug' console is open, showing a list of messages received from the IoT node. Each message is a JSON object containing temperature, humidity, and soil moisture data.

Message ID	Temperature	Humidity	Soil Moisture
2/type/PNT2022TMD47477/ld/PNT2022TMD47477/evl/revent_1/fmt/json : msg.payload : Object	86	31	54
11/5/2022, 11:20:36 AM node debug 1	8	64	59
2/type/PNT2022TMD47477/ld/PNT2022TMD47477/evl/revent_1/fmt/json : msg.payload : Object	98	96	53
11/5/2022, 11:20:39 AM node debug 1	96	35	25
2/type/PNT2022TMD47477/ld/PNT2022TMD47477/evl/revent_1/fmt/json : msg.payload : Object	78	1	28

**STEP4: Edit gauge node (Here the gauge nodes are named as Temperature, Humidity and Soil moisture).**



**STEP5: Simulated program to get the random values.**

IBM Watson IoT Platform

Device Drilldown - PNT2022TMID47477

Connection Information

Recent Events

State

This table shows a list of data points that are reported by this device.

Showing Raw Data | No Interfaces Available

Property	Value	Type
temperature	72	Number
humidity	49	Number
soil moisture	99	Number

Device Information

View basic device information including location and manufacturer.

Device Type: PNT2022TMID47477

Events 1

New event type

Event type name: event\_1

Schedule: 20 Every Minute

Payload

Specify the event payload in the editor window or by uploading a CSV file.

```

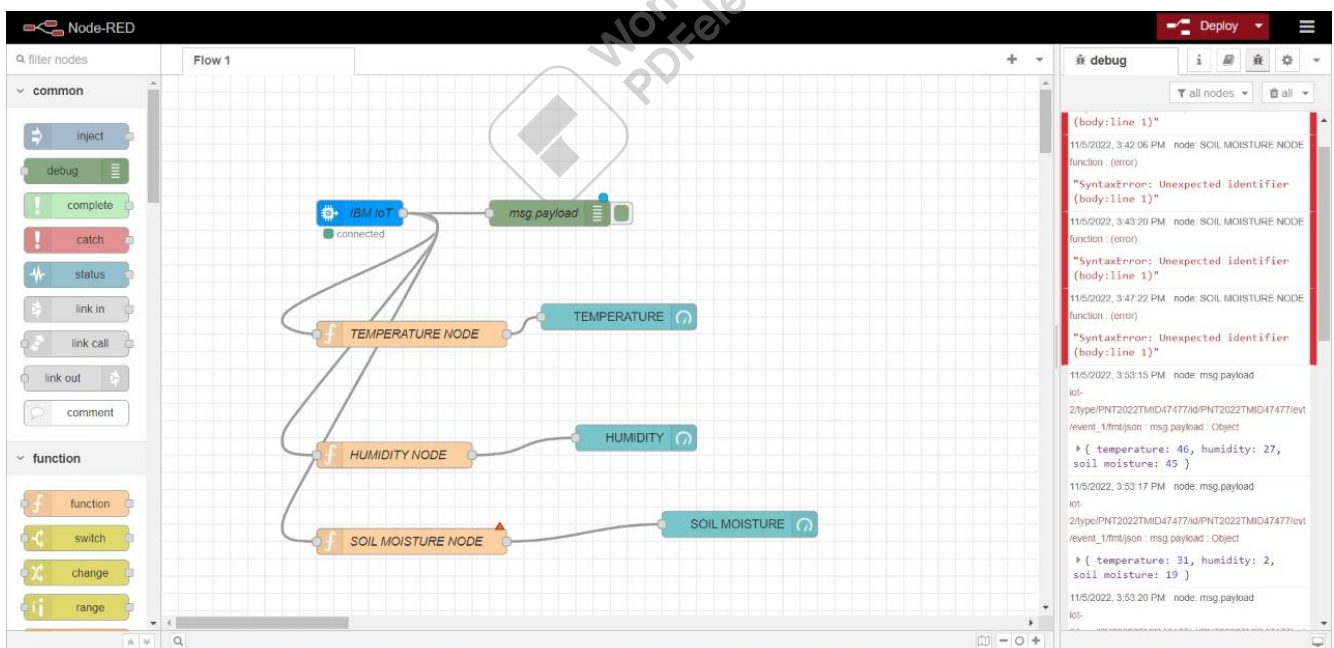
0 {
1   "temperature": random(0, 100),
2   "humidity": random(0, 100),
3   "soil moisture": random(0, 100),
4 }
5

```

Upload a CSV file

Cancel Save

Edit Device Information

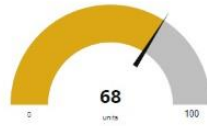
**STEP6: Generate debug message from IBM Watson IoT Platform and connect the nodes.**

**STEP7: Generate the some output from recent events.**

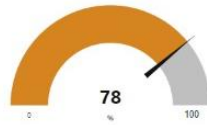
CROP

MONITORING

HUMIDITY



SOIL MOISTURE



TEMPERATURE



CROP

MONITORING

HUMIDITY



TEMPERATURE



**STEP8: MIT APP inventor to design the APP.**