



# SPRINT-2

TEAM ID	PNT2022TMID26521
Project Name	IoT Based smart crop Protection system for agriculture
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STEP1: Download and Install NODE JS.



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### 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

  
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)

32-bit	64-bit
32-bit	64-bit
64-bit / ARM64	
64-bit	ARM64
64-bit	

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]

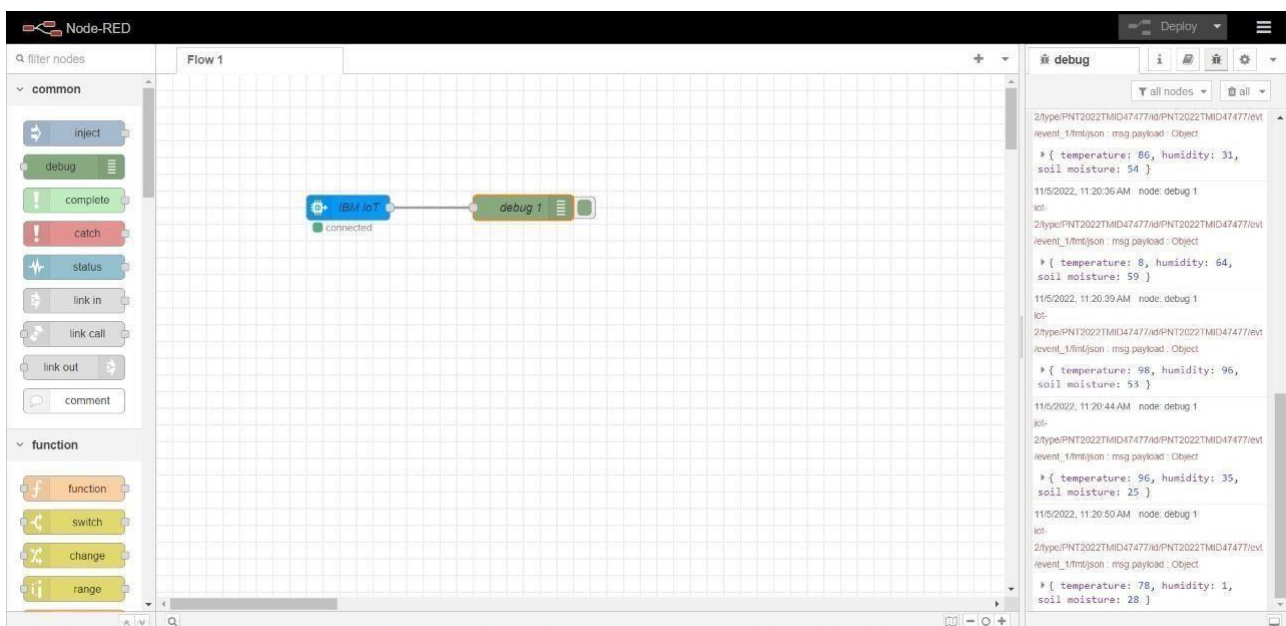
-----
Your flow credentials file is encrypted using a system-generated key.

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.

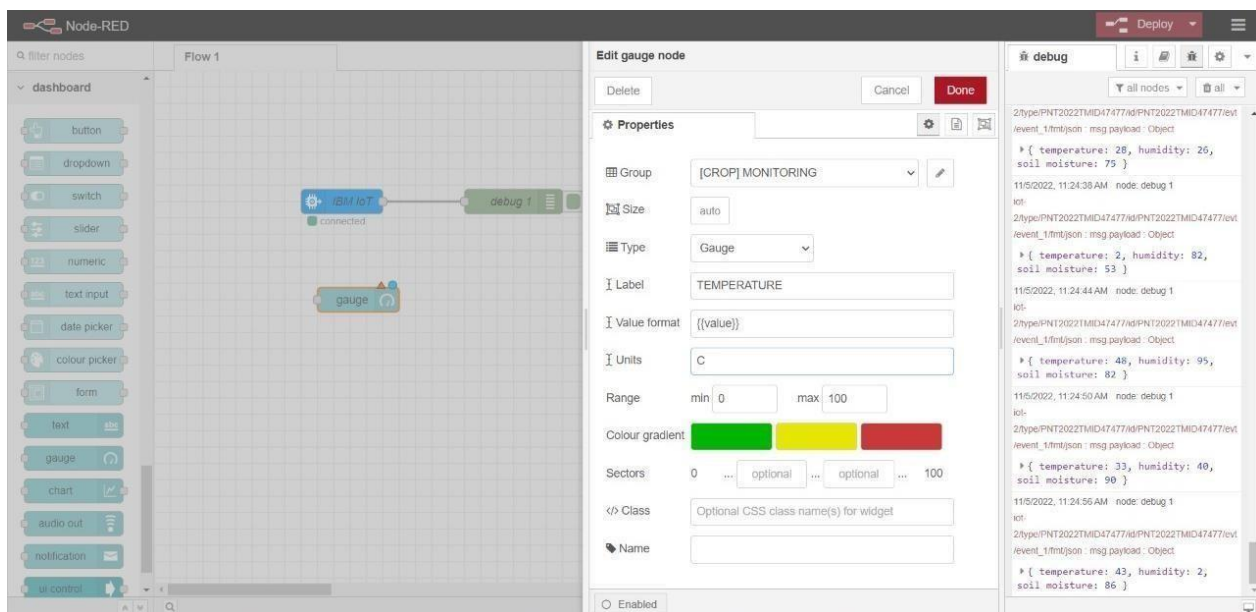
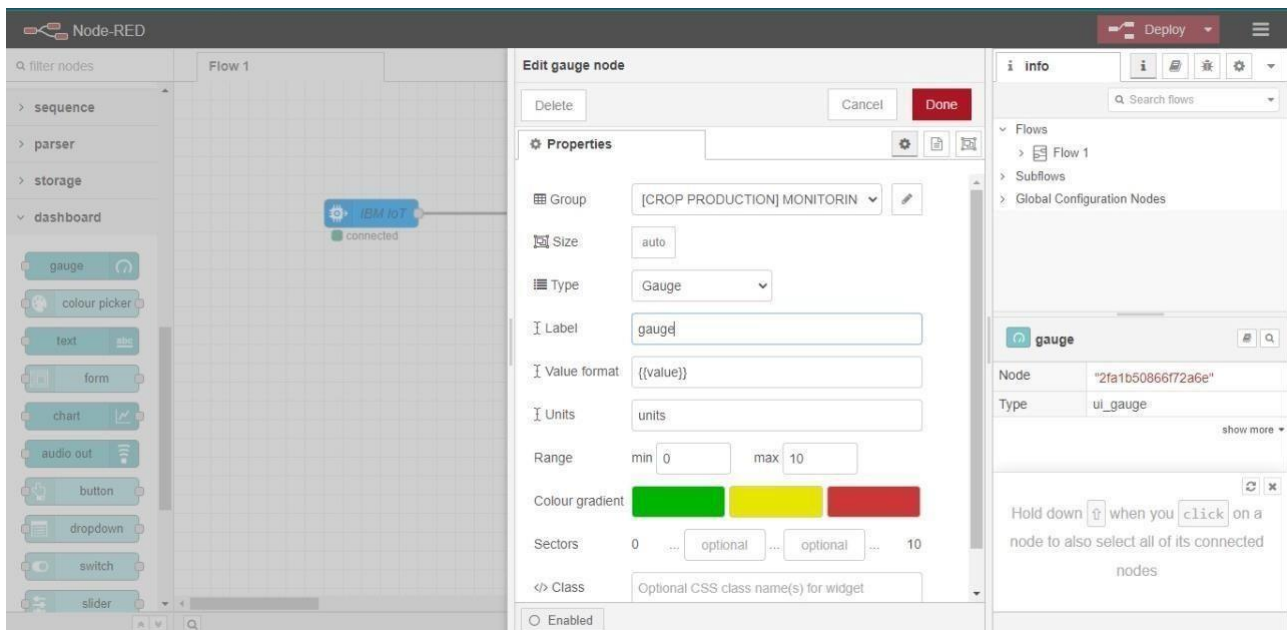
You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.
-----

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/
```

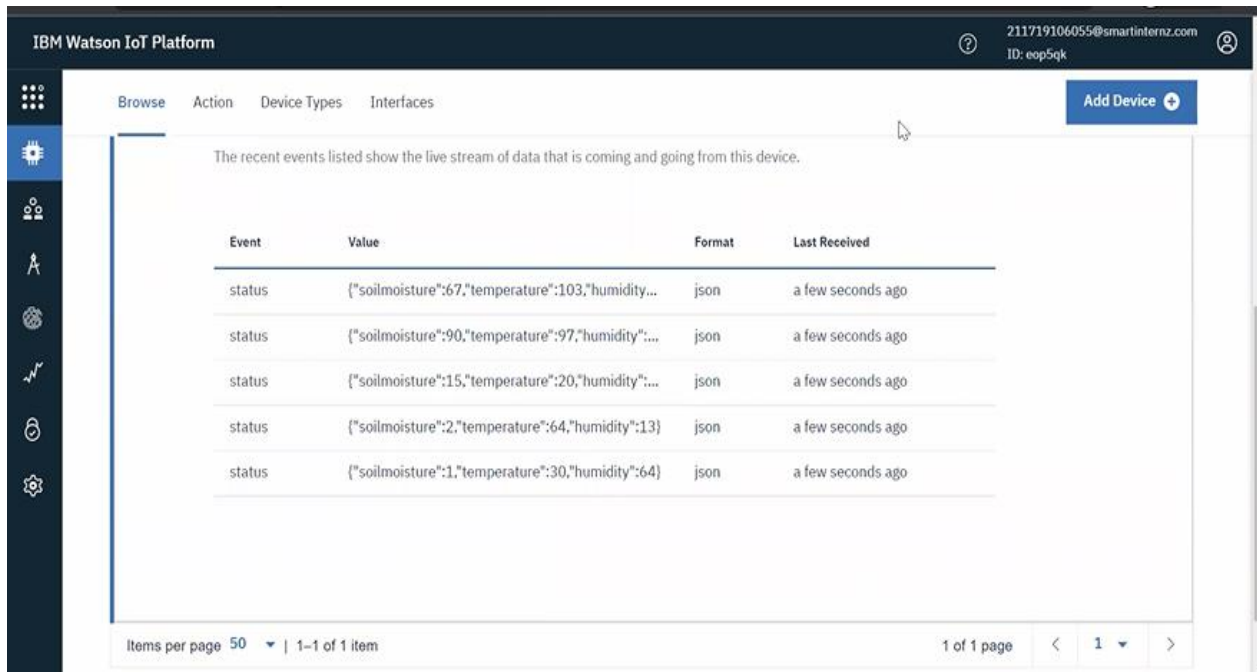
STEP3: Connect IBM IOT in and Debug 1 and Deploy.



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

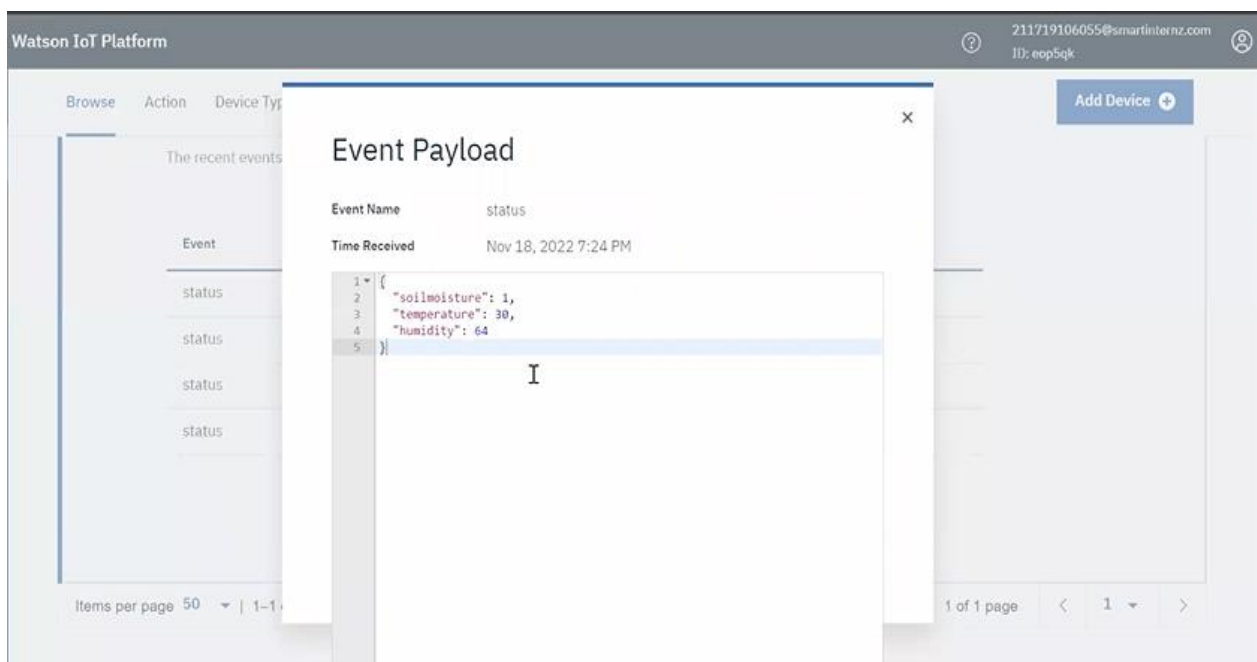


## STEP 5: Simulated program to get the random values.



The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes "Browse", "Action", "Device Types", and "Interfaces". A sidebar on the left contains various icons. The main content area displays a table of recent events. The table has four columns: "Event", "Value", "Format", and "Last Received". The events are listed as "status" with JSON values for "soilmoisture", "temperature", and "humidity". The "Last Received" column indicates "a few seconds ago" for each event. At the bottom, there is a pagination control showing "Items per page 50" and "1 of 1 page".

Event	Value	Format	Last Received
status	{"soilmoisture":67,"temperature":103,"humidity":...	json	a few seconds ago
status	{"soilmoisture":90,"temperature":97,"humidity":...	json	a few seconds ago
status	{"soilmoisture":15,"temperature":20,"humidity":...	json	a few seconds ago
status	{"soilmoisture":2,"temperature":64,"humidity":13}	json	a few seconds ago
status	{"soilmoisture":1,"temperature":30,"humidity":64}	json	a few seconds ago

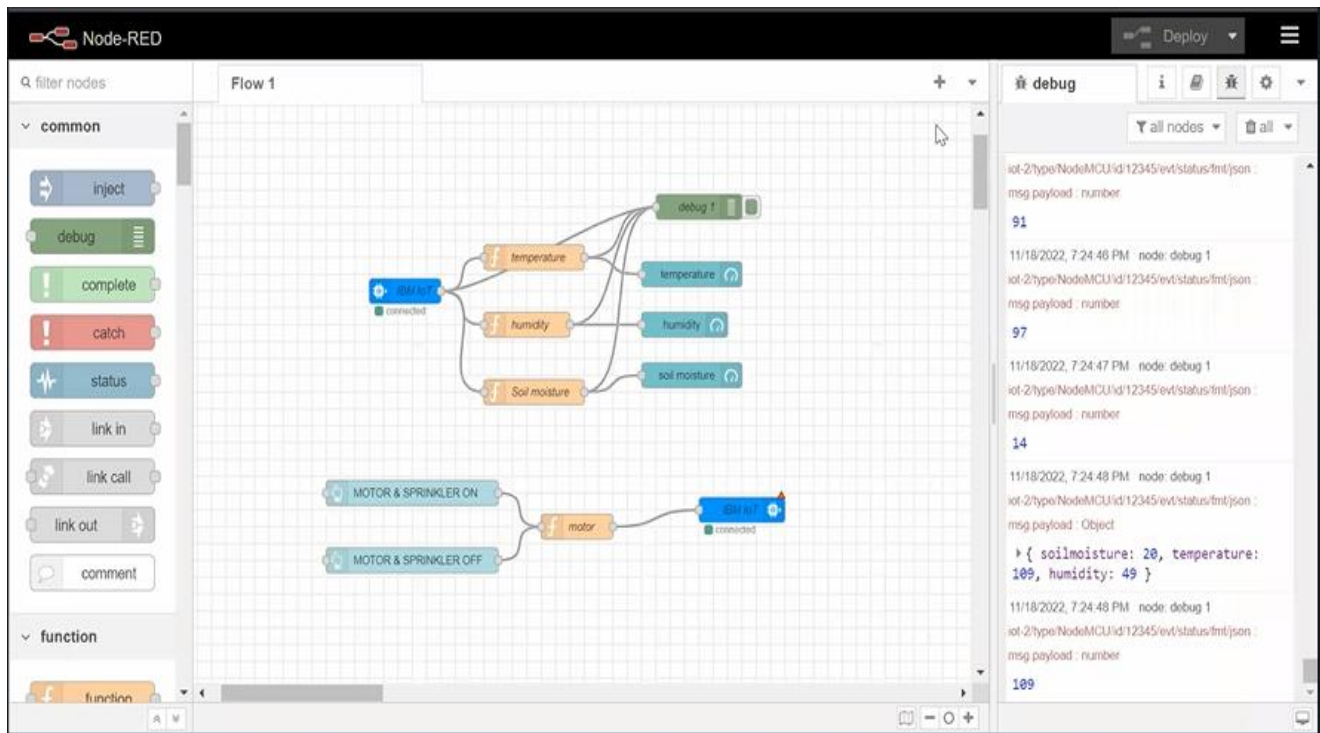


The screenshot shows the Watson IoT Platform interface with an "Event Payload" modal window open. The modal displays the "Event Name" as "status" and the "Time Received" as "Nov 18, 2022 7:24 PM". The "Event Payload" section shows a JSON object with the following structure:

```
1 {  
2   "soilmoisture": 1,  
3   "temperature": 30,  
4   "humidity": 64  
5 }
```

The background shows the same list of events as the previous screenshot, but it is partially obscured by the modal window. The pagination control at the bottom indicates "Items per page 50" and "1 of 1 page".

STEP6: Generate the debug message from Watson IoT platform and connect the nodes.



STEP 7: Output.

