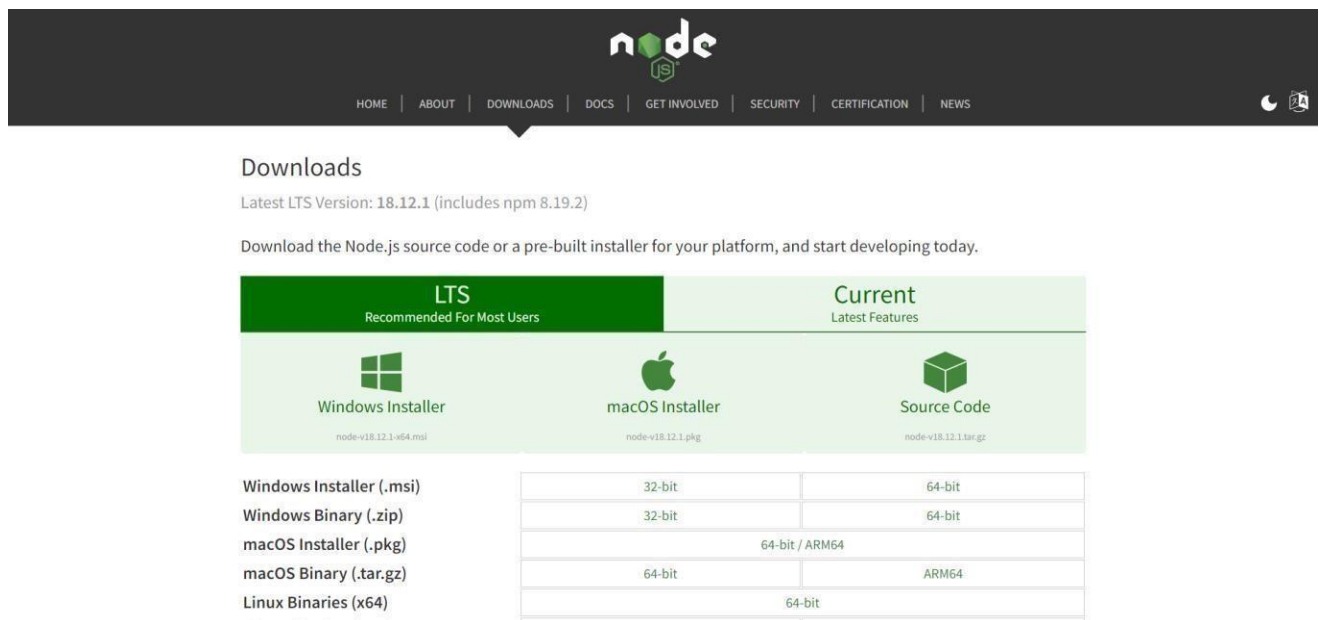


SPRINT-2

TEAM ID	PNT2022TMID05745
Project Name	IoT Based smart crop Protection system for agriculture
Maximum mark	20 marks

STEP1: Download and Install NODE JS.






node

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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	Current Latest Features	
 Windows Installer <small>node-v18.12.1-x64.msi</small>	 macOS Installer <small>node-v18.12.1.pkg</small>	 Source Code <small>node-v18.12.1.tar.gz</small>

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]

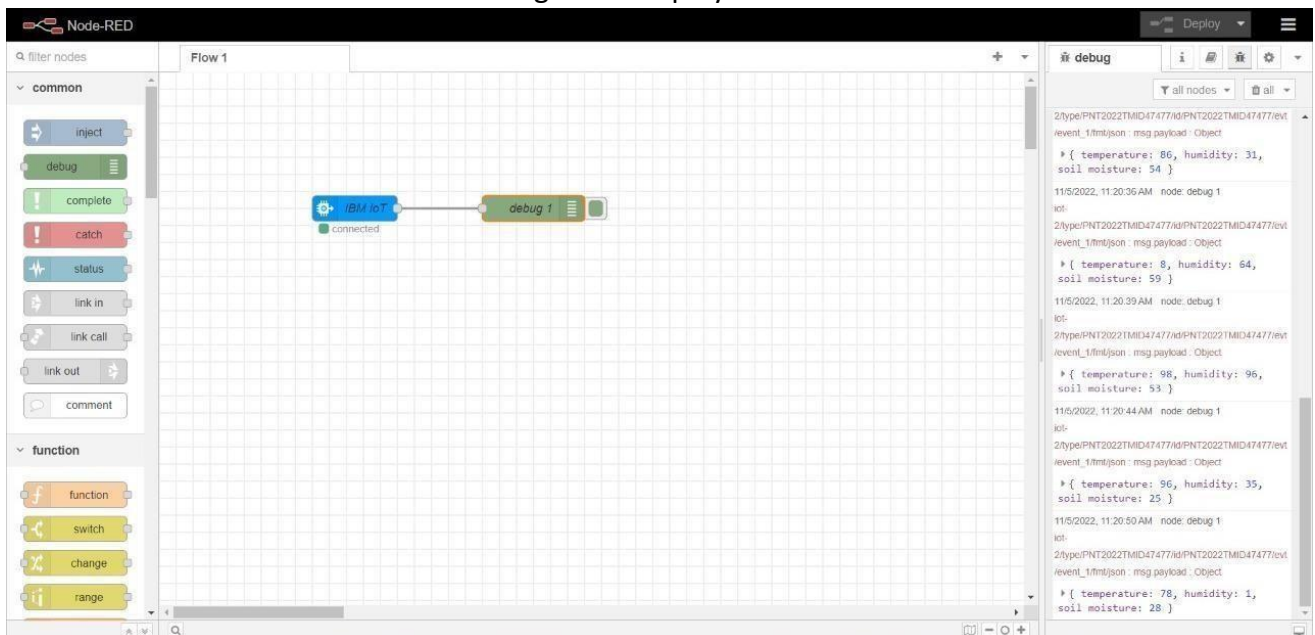
-----
Your flow credentials file is encrypted using a system-generated key.

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).

Node-RED interface showing the configuration of a gauge node.

Left Panel (Nodes): Filter nodes, sequence, parser, storage, dashboard. Dashboard nodes include gauge, colour picker, text, form, chart, audio out, button, dropdown, switch, slider.

Flow 1: A flow containing an IBM IoT node (connected) and a gauge node.

Edit gauge node Properties:

- Group: [CROP PRODUCTION] MONITORIN
- Size: auto
- Type: Gauge
- Label: gauge
- Value format: {(value)}
- Units: units
- Range: min 0, max 10
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0, optional, optional, 10
- Class: Optional CSS class name(s) for widget
- Enabled: ☐

Right Panel (Info):

- Node: "2fa1b50866f72a6e"
- Type: ul_gauge
- show more
- Hold down when you on a node to also select all of its connected nodes

Node-RED interface showing the configuration of a gauge node and a debug console.

Left Panel (Nodes): Filter nodes, dashboard. Dashboard nodes include button, dropdown, switch, slider, numeric, text input, date picker, colour picker, form, gauge, chart, audio out, notification, ui control.

Flow 1: A flow containing an IBM IoT node (connected), a debug node (debug 1), and a gauge node.

Edit gauge node Properties:

- Group: [CROP] MONITORING
- Size: auto
- Type: Gauge
- Label: TEMPERATURE
- Value format: {(value)}
- Units: C
- Range: min 0, max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0, optional, optional, 100
- Class: Optional CSS class name(s) for widget
- Name:
- Enabled: ☐

Right Panel (Debug Console):

- 2/Type/PNT2022TMD47477/Id/PNT2022TMD47477/ev/ /event_1/mf/json : msg.payload : Object
- 11/5/2022, 11:24:38 AM node: debug 1
- iot: 2/Type/PNT2022TMD47477/Id/PNT2022TMD47477/ev/ /event_1/mf/json : msg.payload : Object
- 11/5/2022, 11:24:44 AM node: debug 1
- iot: 2/Type/PNT2022TMD47477/Id/PNT2022TMD47477/ev/ /event_1/mf/json : msg.payload : Object
- 11/5/2022, 11:24:50 AM node: debug 1
- iot: 2/Type/PNT2022TMD47477/Id/PNT2022TMD47477/ev/ /event_1/mf/json : msg.payload : Object
- 11/5/2022, 11:24:56 AM node: debug 1
- iot: 2/Type/PNT2022TMD47477/Id/PNT2022TMD47477/ev/ /event_1/mf/json : msg.payload : Object