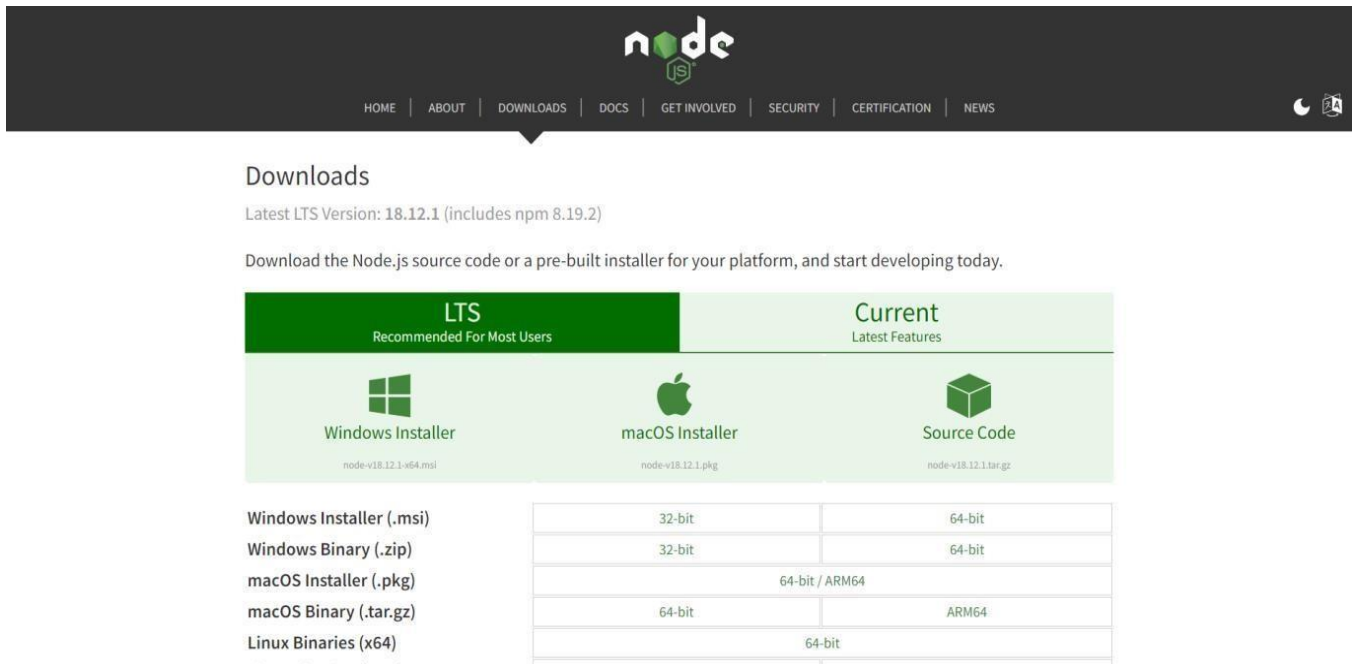


SPRINT - 2

Date	19 November 2022
Team ID	PNT2022TMID15088
Project Name	IOT Based Smart Crop Protection System For Agriculture
Maximum Marks	20 Marks

1) Download and install node js.

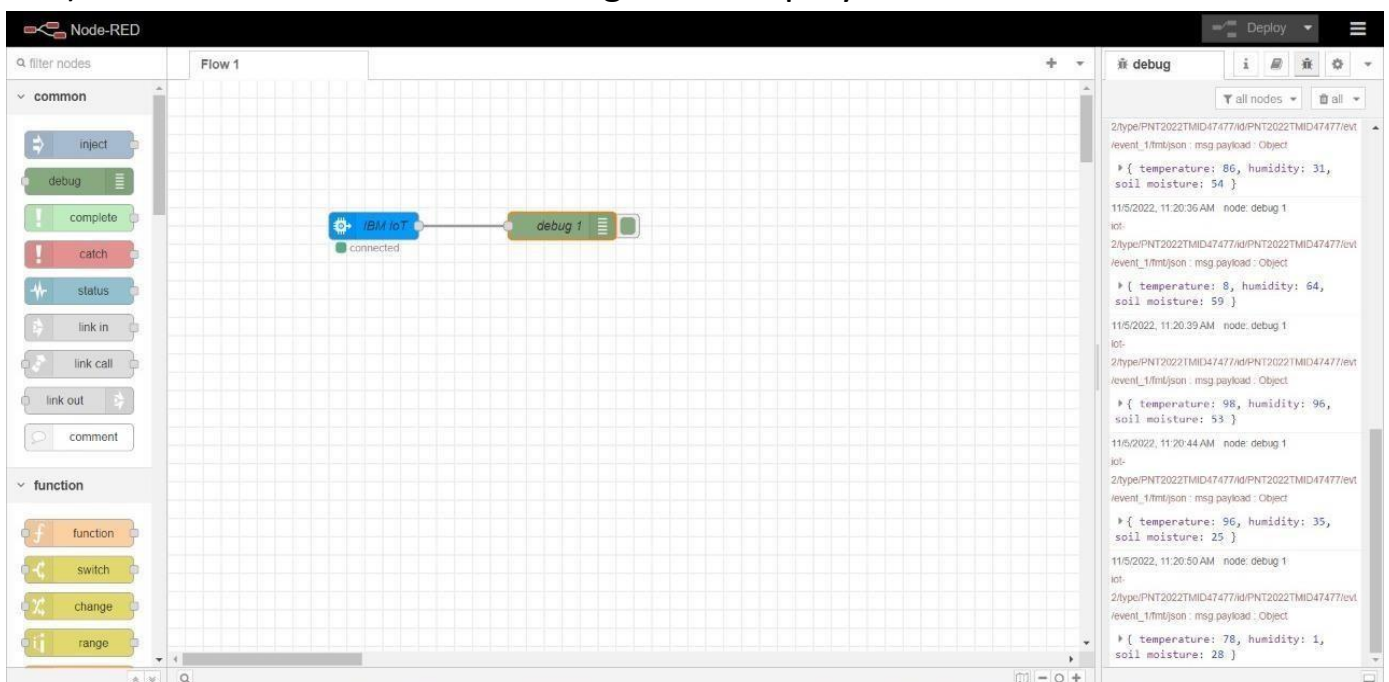


The image shows the Node.js Downloads page. At the top, there's a navigation bar with links: HOME, ABOUT, DOWNLOADS, DOCS, GET INVOLVED, SECURITY, CERTIFICATION, NEWS. Below the navigation bar, the 'Downloads' section is highlighted. It states 'Latest LTS Version: 18.12.1 (includes npm 8.19.2)' and 'Download the Node.js source code or a pre-built installer for your platform, and start developing today.' There are two main tabs: 'LTS Recommended For Most Users' and 'Current Latest Features'. Under the 'LTS' tab, 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, there's a table showing the available binaries for each platform.

Platform	Architecture	File Name
Windows	32-bit	node-v18.12.1-x86.msi
	64-bit	node-v18.12.1-x64.msi
macOS	32-bit	node-v18.12.1.pkg
	64-bit	node-v18.12.1.pkg
Linux	64-bit	node-v18.12.1-linux-x64.tar.gz
	ARM64	node-v18.12.1-linux-arm64.tar.gz

2) Setup node.js and configure command prompt for error check. Open node-red from the generated link.

3) Connect IBM IOT in and Debug 1 and Deploy.



The image shows the Node-RED interface. On the left, there's a palette with 'common' and 'function' nodes. The 'common' nodes include inject, debug, complete, catch, status, link in, link call, link out, and comment. The 'function' nodes include function, switch, change, and range. The main workspace shows a flow named 'Flow 1' with two nodes: 'IBM IoT' (connected) and 'debug 1'. On the right, there's a 'debug' console showing the output of the 'debug 1' node. The output is a JSON object: { temperature: 86, humidity: 31, soil moisture: 54 }. The console also shows the timestamp and the node name: 11/5/2022, 11:20:36 AM node: debug 1.

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

The screenshot shows the Node-RED interface with a flow named 'Flow 1'. A gauge node is connected to an 'IBM IoT' node. The 'Edit gauge node' dialog is open, showing the following properties:

- Group: [CROP PRODUCTION] MONITORIN
- Size: auto
- Type: Gauge
- Label: gauge1
- 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: ☐ Enabled

The right sidebar shows the 'info' panel with the node details:

- Node: "2fa1b50866f72a6e"
- Type: ui_gauge

The screenshot shows the Node-RED interface with a flow named 'Flow 1'. A gauge node is connected to an 'IBM IoT' node. The 'Edit gauge node' dialog is open, showing the following 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: ☐ Enabled

The right sidebar shows the 'debug' panel with the following log entries:

```
2/type/PNT2022TMD47477/nd/PNT2022TMD47477/ev/
/evnt_1/fmt/json : msg.payload : Object
{
  temperature: 28, humidity: 26,
  soil moisture: 75
}
11/5/2022, 11:24:38 AM node: debug 1
iot:
2/type/PNT2022TMD47477/nd/PNT2022TMD47477/ev/
/evnt_1/fmt/json : msg.payload : Object
{
  temperature: 2, humidity: 82,
  soil moisture: 53
}
11/5/2022, 11:24:44 AM node: debug 1
iot:
2/type/PNT2022TMD47477/nd/PNT2022TMD47477/ev/
/evnt_1/fmt/json : msg.payload : Object
{
  temperature: 48, humidity: 95,
  soil moisture: 82
}
11/5/2022, 11:24:50 AM node: debug 1
iot:
2/type/PNT2022TMD47477/nd/PNT2022TMD47477/ev/
/evnt_1/fmt/json : msg.payload : Object
{
  temperature: 33, humidity: 40,
  soil moisture: 90
}
11/5/2022, 11:24:56 AM node: debug 1
iot:
2/type/PNT2022TMD47477/nd/PNT2022TMD47477/ev/
/evnt_1/fmt/json : msg.payload : Object
{
  temperature: 43, humidity: 2,
  soil moisture: 86
}
```