


SPRINT-2



IOT SMART CROP PROTECTION AND AGRICULTURE SYSTEM

TEAM ID	PNT2022TMID30091
Project Name	IoT Based smart crop Protection system for agriculture
Maximum mark	20 marks

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

Current
Latest Features


Windows Installer
node-v18.12.1-x64.msi

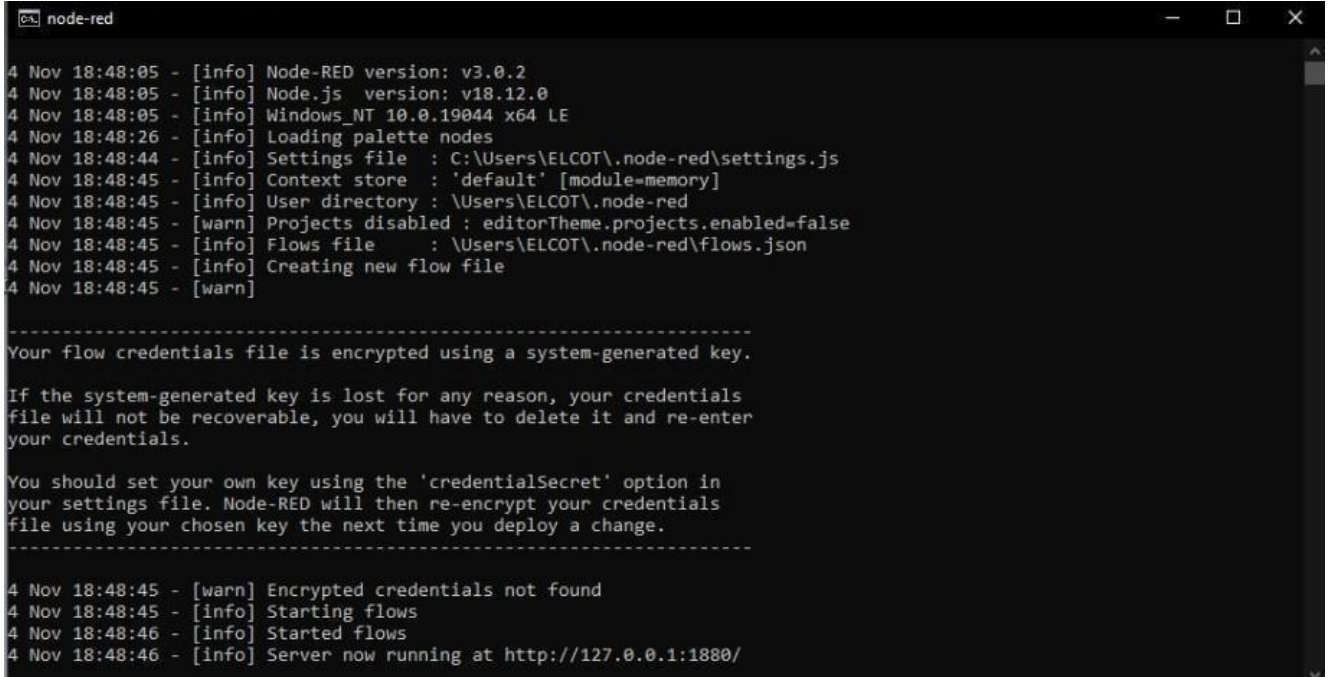

macOS Installer
node-v18.12.1.pkg


Source Code
node-v18.12.1.tar.gz

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

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.



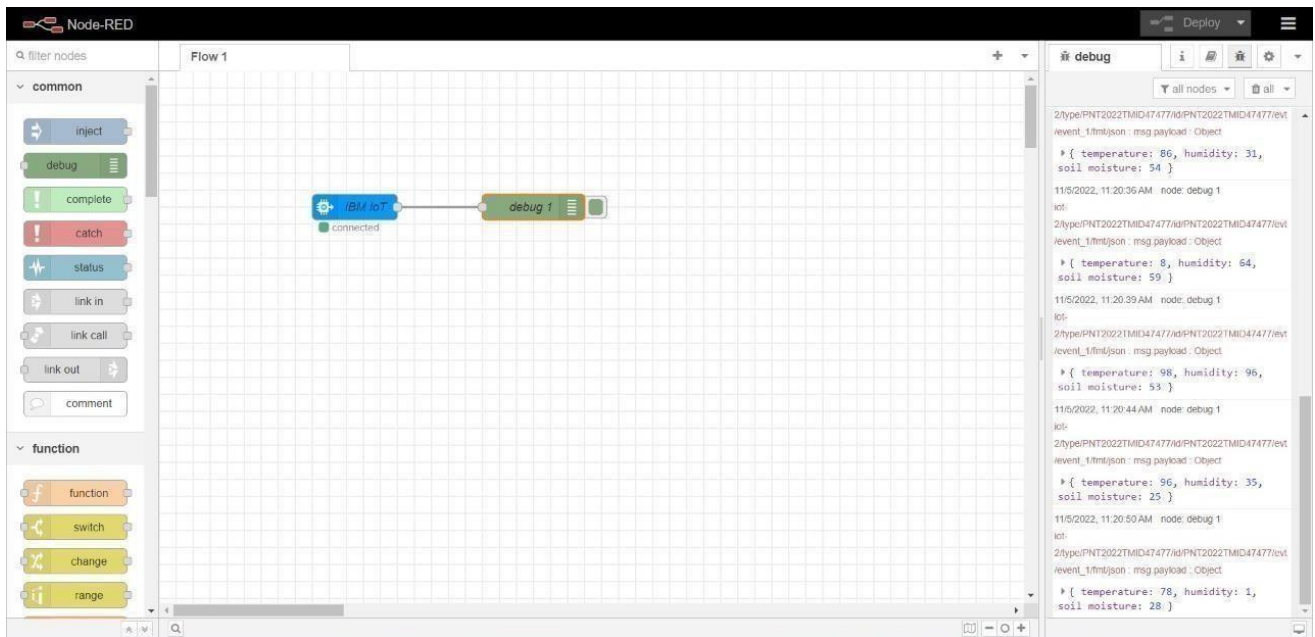
```
node-red
4 Nov 18:48:05 - [info] Node-RED version: v3.0.2
4 Nov 18:48:05 - [info] Node.js version: v18.12.0
4 Nov 18:48:05 - [info] Windows_NT 10.0.19044 x64 LE
4 Nov 18:48:26 - [info] Loading palette nodes
4 Nov 18:48:44 - [info] Settings file : C:\Users\ELCOT\.node-red\settings.js
4 Nov 18:48:45 - [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.

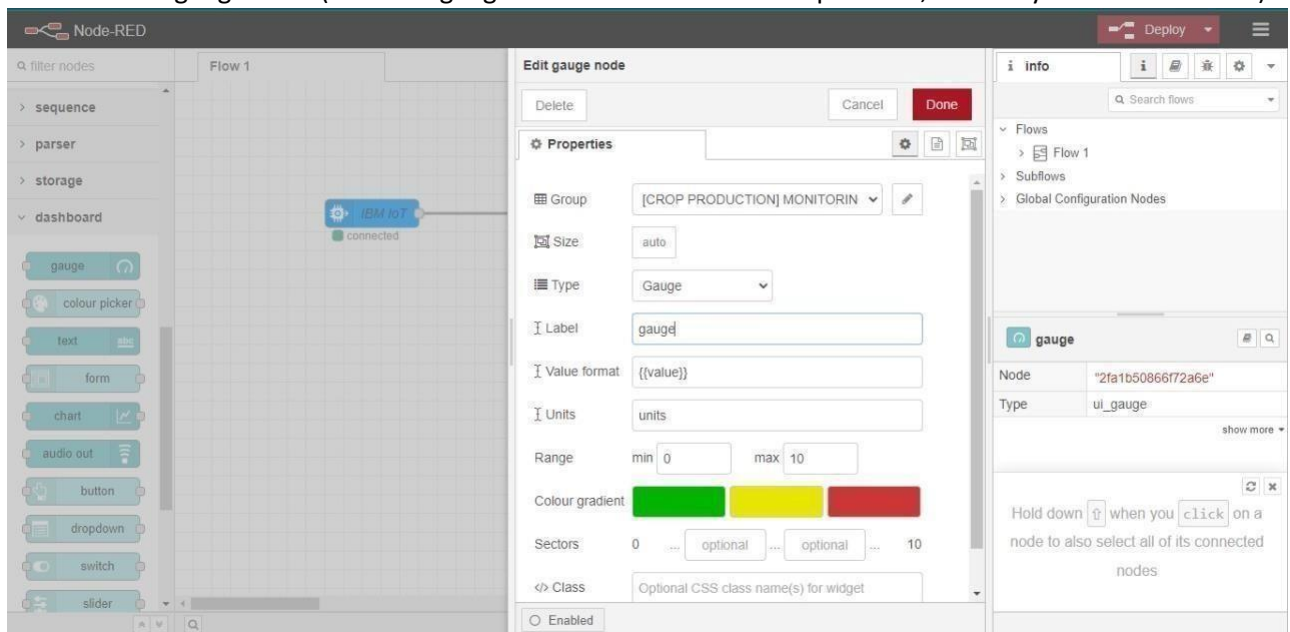
If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

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

Deploy

filter nodes

Flow 1

dashboard

button

dropdown

switch

slider

numeric

text input

date picker

colour picker

form

text

gauge

chart

audio out

notification

ui control

IoT

connected

debug 1

gauge

Delete

Cancel

Done

Properties

Group

[CROP] MONITORING

Size

auto

Type

Gauge

Label

TEMPERATURE

Value format

{{value}}

Units

C

Range

min 0

max 100

Colour gradient

Sectors

0

optional

optional

100

Class

Optional CSS class name(s) for widget

Name

Enabled

debug

all nodes

2/type/PNT2022TMD47477/nd/PNT2022TMD47477/evt

/event_1fmt/json : msg.payload : Object

{ temperature: 26, humidity: 26, soil moisture: 75 }

11/5/2022, 11:24:38 AM node debug 1

2/type/PNT2022TMD47477/nd/PNT2022TMD47477/evt

/event_1fmt/json : msg.payload : Object

{ temperature: 2, humidity: 82, soil moisture: 53 }

11/5/2022, 11:24:44 AM node debug 1

2/type/PNT2022TMD47477/nd/PNT2022TMD47477/evt

/event_1fmt/json : msg.payload : Object

{ temperature: 48, humidity: 95, soil moisture: 82 }

11/5/2022, 11:24:50 AM node debug 1

2/type/PNT2022TMD47477/nd/PNT2022TMD47477/evt

/event_1fmt/json : msg.payload : Object

{ temperature: 33, humidity: 40, soil moisture: 90 }

11/5/2022, 11:24:56 AM node debug 1

2/type/PNT2022TMD47477/nd/PNT2022TMD47477/evt

/event_1fmt/json : msg.payload : Object

{ temperature: 43, humidity: 2, soil moisture: 86 }