

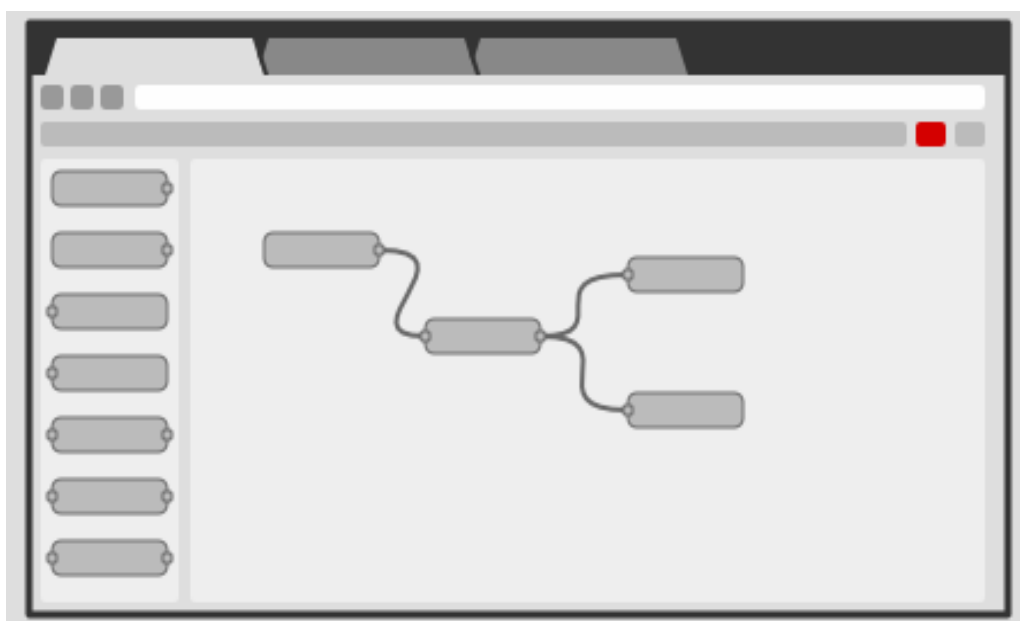
Team ID	PNT2022TMID40898
Project Name	Project –IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

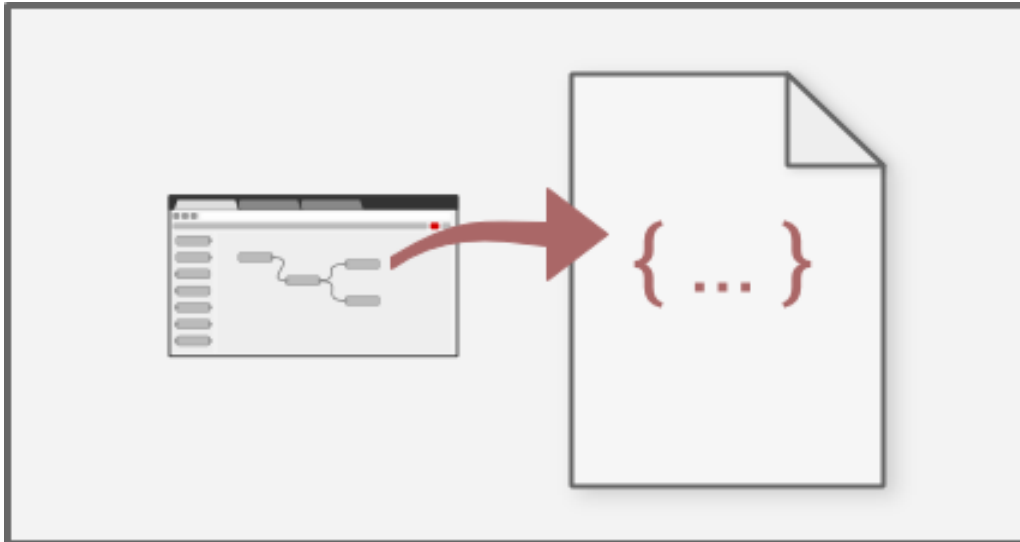
Creating NODE-RED Service

- Node-RED is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs and online services as part of the Internet of Things.
- Node-RED provides a web browser-based flow editor, which can be used to create JavaScript functions. Elements of applications can be saved or shared for re-use.
- The runtime is built on Node.js.
- The flows created in Node-RED are stored using JSON.

Social Development:

- The flows created in Node-RED are stored using JSON which can be easily imported and exported for sharing with others.
- An online flow library allows you to share your best flows with the world.



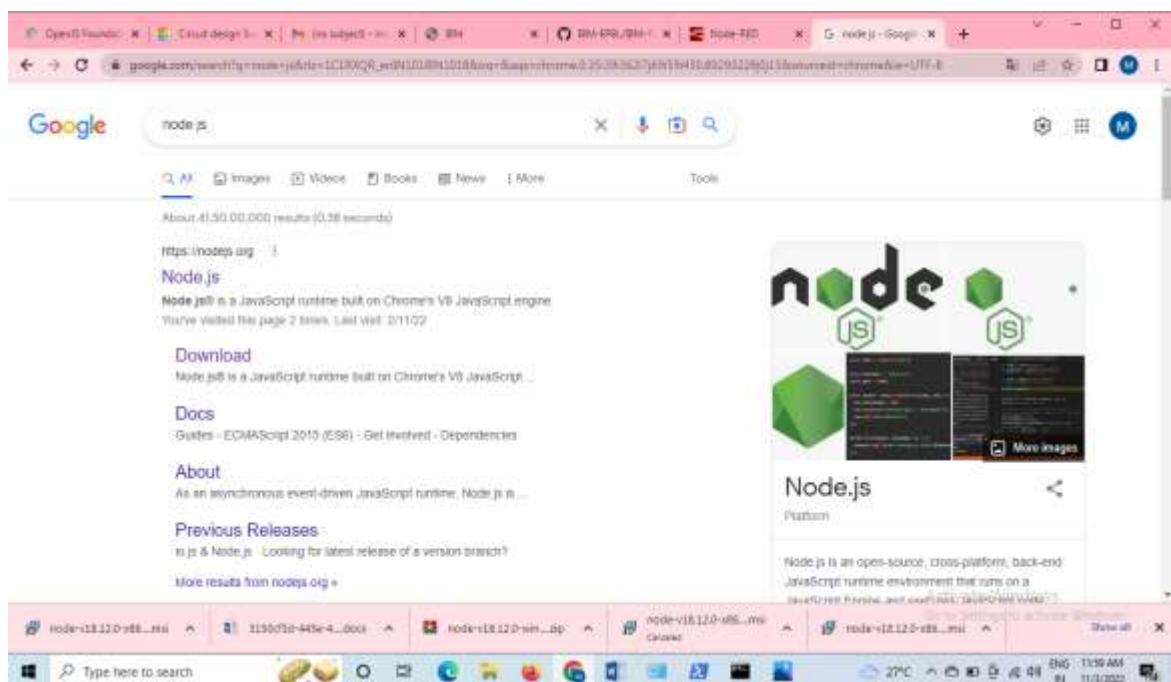


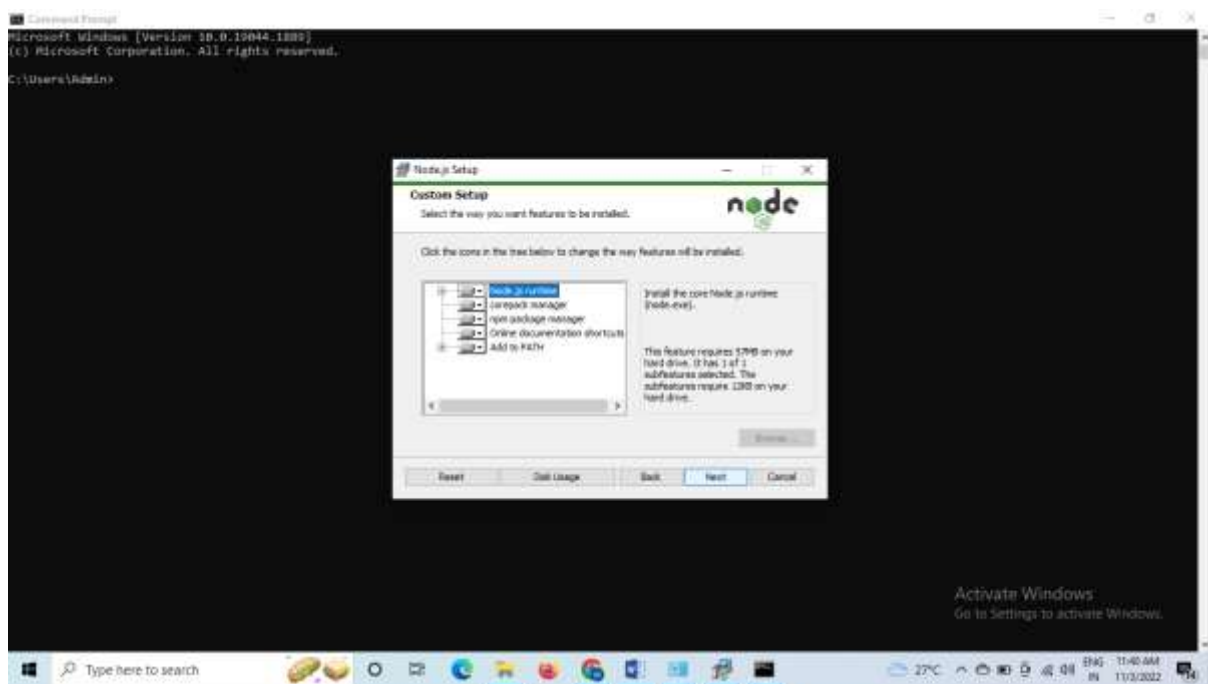
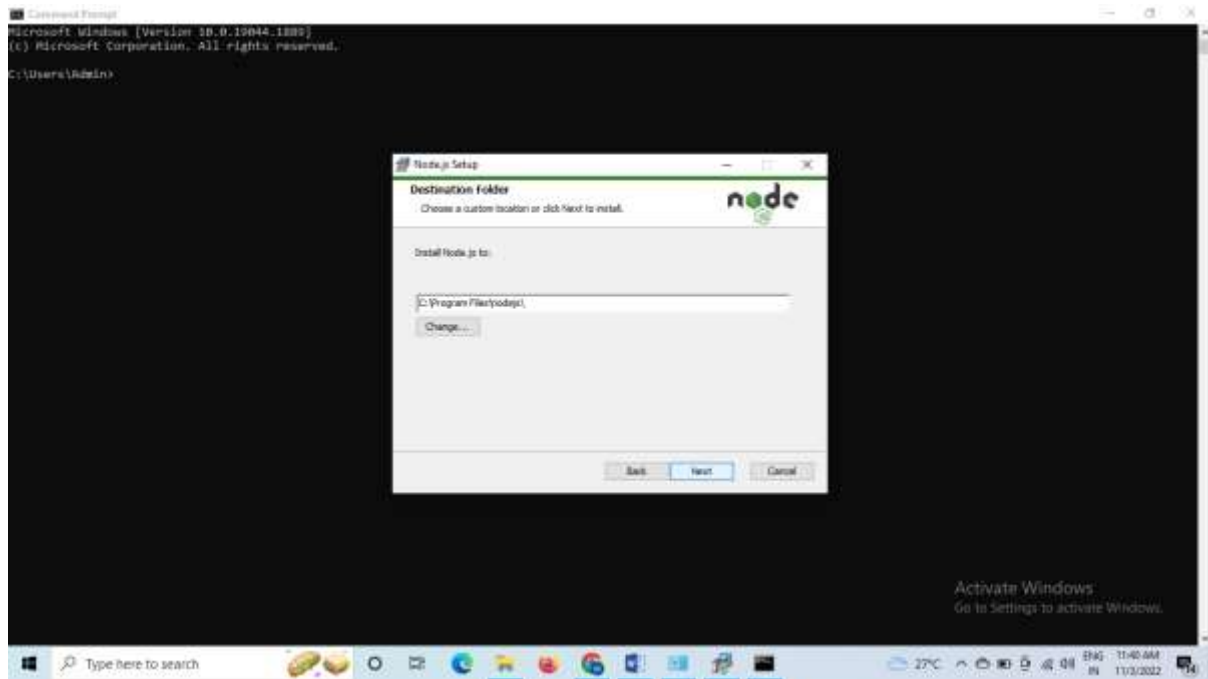
Step1: go to nodejs website and download .msi file in downloads page.

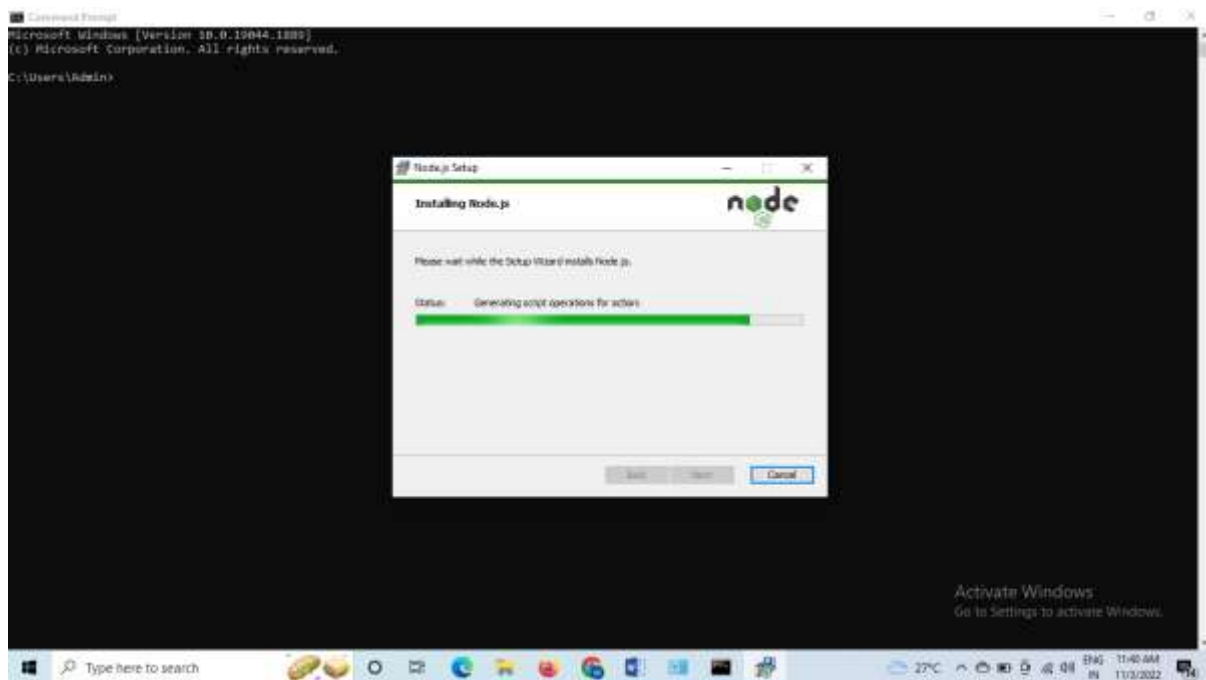
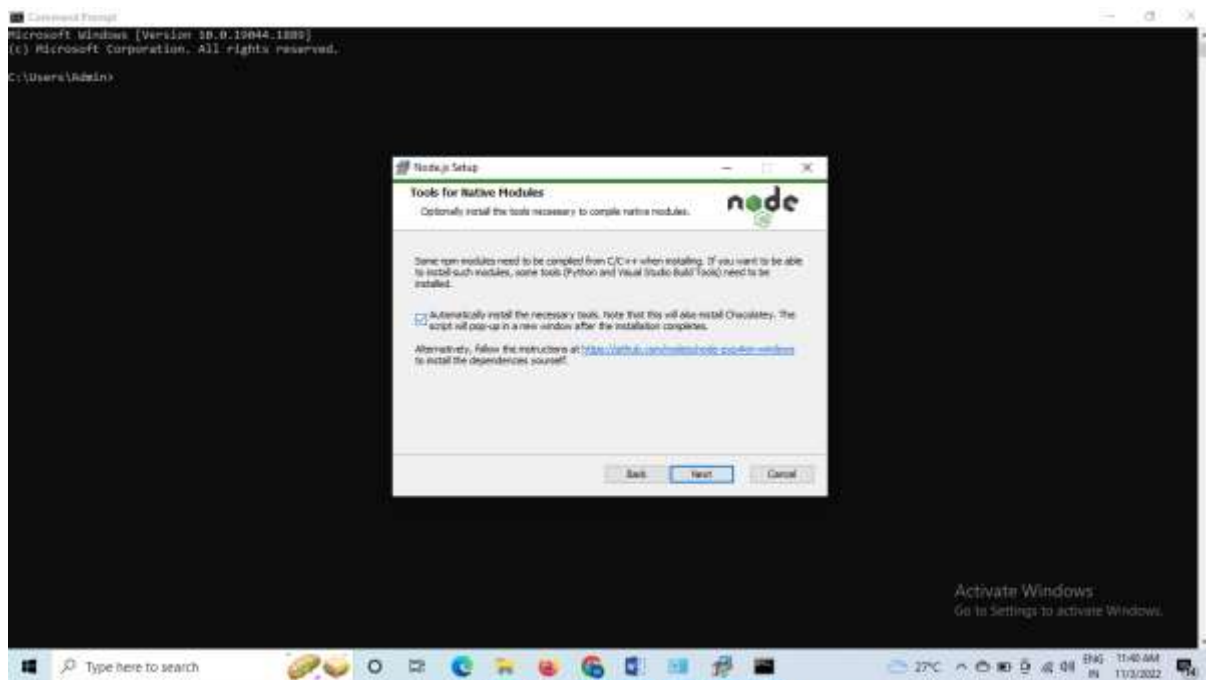
Step2:run the .msi file and install the nodejs.

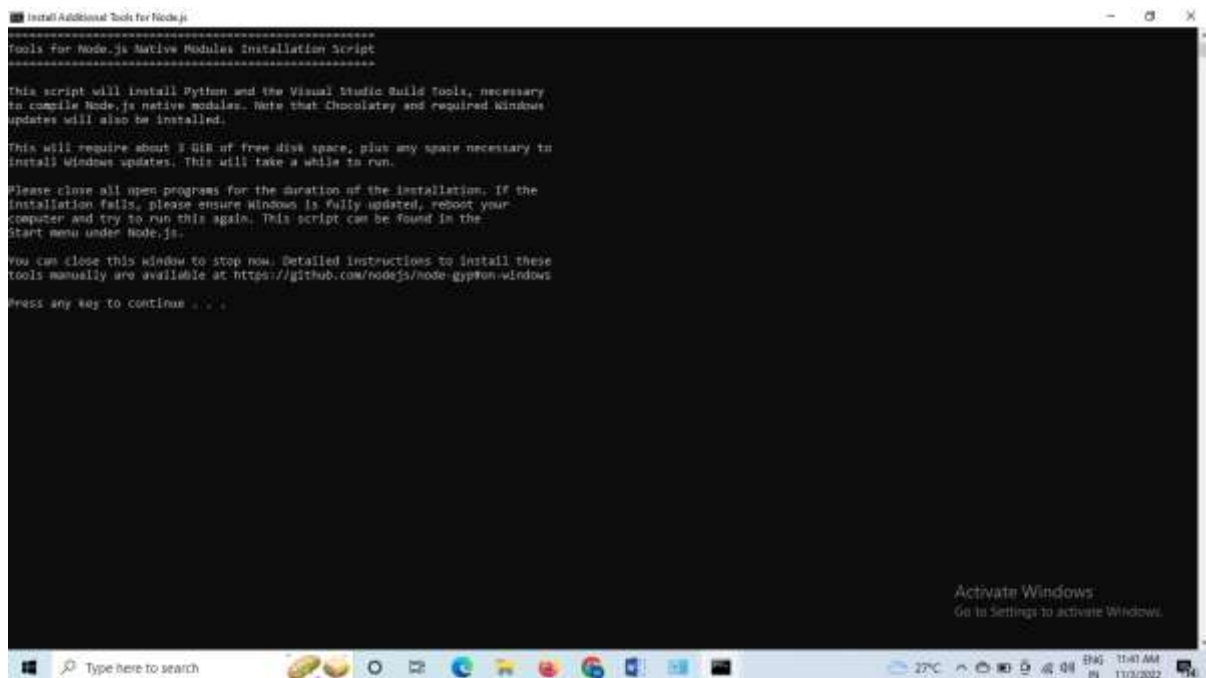
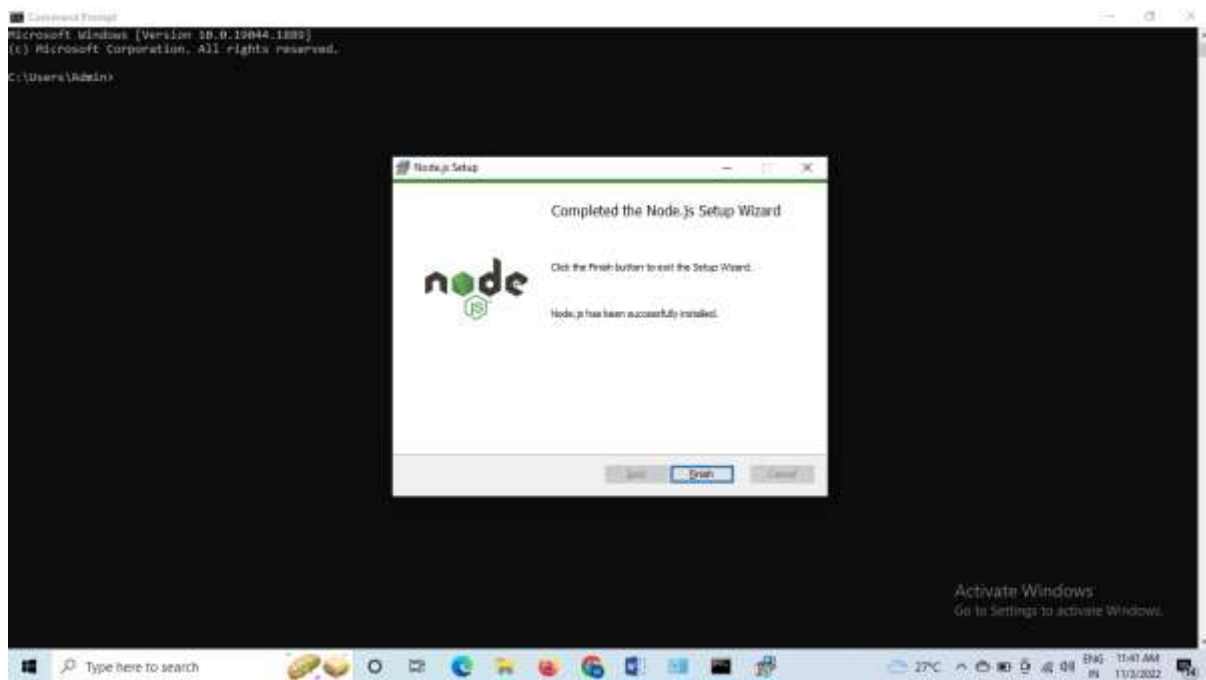
Step3: install nodered in command prompt: `npm install -g --unsafe-perm node-red`

Step4: type node-red in cmd and u will get the local server link, just open it.









```
npm install node-red
Microsoft Windows [Version 10.0.19044.1889]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>node --version
v18.12.0

C:\Users\Admin>npm install -g --unsafe-perm node-red
[redacted] \ idelTree\npm: [redacted] idelTree buildDeps
```

Activate Windows
Go to Settings to activate Windows.

Type here to search

27°C

11:44 AM
11/3/2022

```
Microsoft Windows [Version 10.0.19044.1889]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>node --version
v18.12.0

C:\Users\Admin>npm install -g --unsafe-perm node-red
npm WARN deprecated @types/keycloak@2.0: This is a stub types definition. keycloak provides its own type definitions, so you do not need this installed.
changed 292 packages, and audited 293 packages in 3s

39 packages are looking for funding
  run `npm fund` for details

1 vulnerability (4 low, 1 moderate)

To address issues that do not require attention, run:
  npm audit fix

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
C:\Users\Admin>
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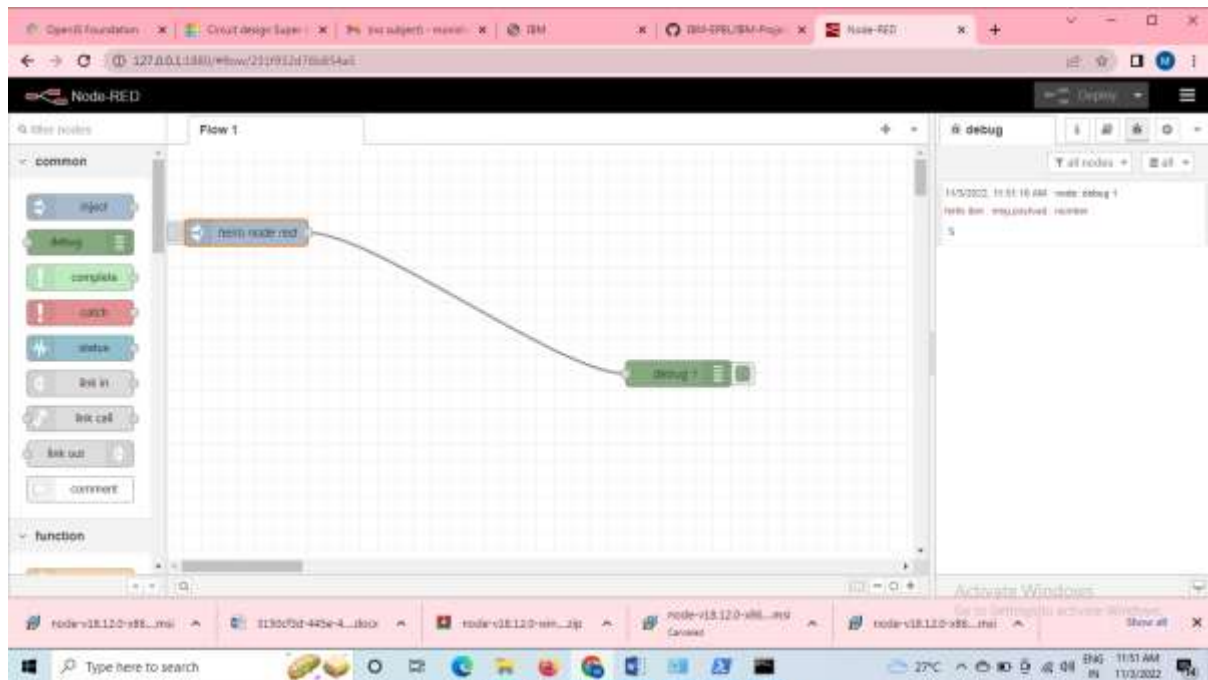
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To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
C:\Users\Admin>node -red
1 Nov 11:47:10 - [info]
Welcome to Node-RED
*****
1 Nov 11:47:10 - [info] Node-RED version: v18.0.2
1 Nov 11:47:10 - [info] Node.js version: v18.12.0
1 Nov 11:47:10 - [info] Windows RT 10.0.19044.1a32 15
1 Nov 11:47:13 - [info] Loading palette nodes
1
```

Activate Windows
Go to Settings to activate Windows.



Thus we created NODE-RED Service.