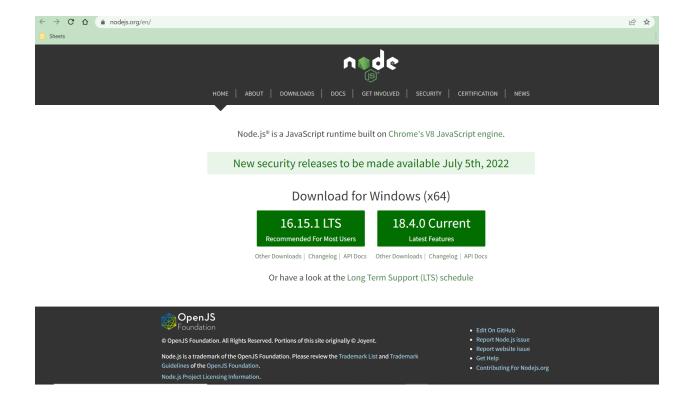
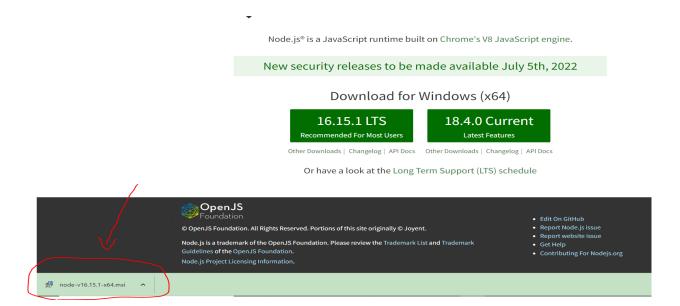
### Step 1. Install Node.js

Download the latest 16.x LTS version of Node.js from the official <u>Node.js home page</u>. It will offer you the best version for your system.



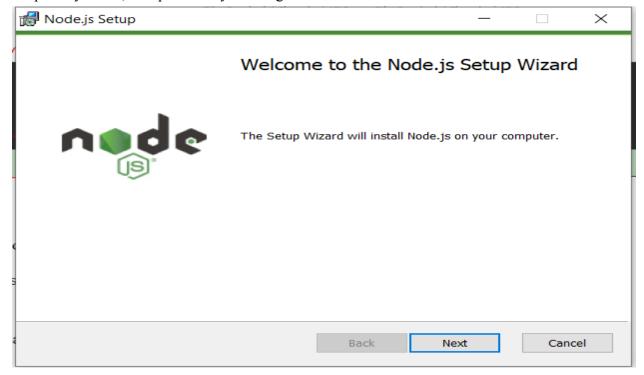
When you click on the 16.x LTS version it will start downloading the msi file, which you can see at the bottom of your browser.



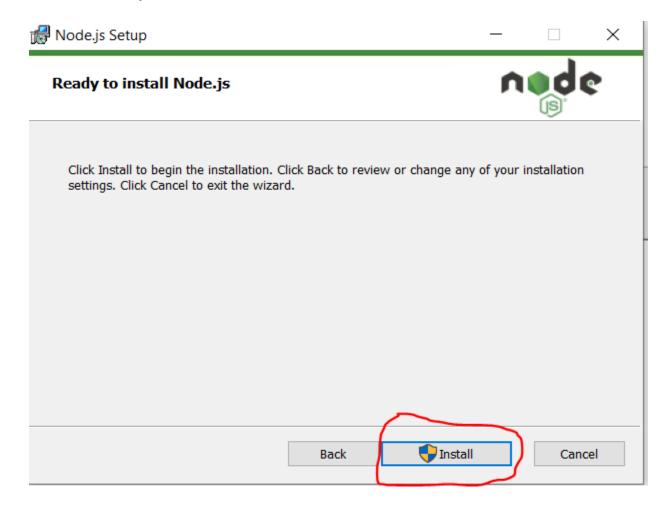
Run the downloaded MSI file. By double clicking on it.

**Note:** Installing Node.js requires local administrator rights; if you are not a local administrator, you will be prompted for an administrator password on install. Accept the defaults when installing. After installation completes, close any open command prompts and re-open to ensure new environment variables are picked up.

You will get a pop window, where the node.js installation setup starts. Click on next and you will see privacy terms, accept those by clicking on checkbox and click on next.



Click on next till you see the install button, click on install it will install the files,



Once installed, open a command prompt and run the following command to ensure Node.js and npm are installed correctly.

Using Powershell: node --version; npm --version

Using cmd: node --version && npm --version

You should receive back output that looks similar to:

```
Microsoft Windows [Version 10.0.19043.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Users\mahid>node --version && npm --version
v16.15.1
npm WARN config global `--global`, `--local` are deprecated. Use `--location=global` instead.
8.11.0
```

If you got this then your node is is successfully installed.

#### **Step 2. Install Node-RED**

Installing Node-RED as a global module adds the command node-red to your system path. Execute the following at the command prompt: **npm install -g --unsafe-perm node-red** 

```
C:\Users\mahidonpm install -g --unsafe-perm node-red

npm ARL
config global `--global`, `--local` are deprecated. Use `--location=global` instead.

npm ARL
config global `--global`, `--local` are deprecated. Use `--location=global` instead.

npm ARL
config global `--global`, '--local` are deprecated. Use `--location=global` instead.

npm ARL
deprecated multer@1.4.4: Multer 1.x is affected by CVE-2022-24434. This is to accepting patches that would fix the CVE on the main 1.x release line, whilst maintaining compatibility with Node.js 0.10.

npm ARL
deprecated axios@0.27.0: Formdata complete broken, incorrect build size

changed 301 packages, and audited 302 packages in 45s
```

## Step 3. Run Node-RED

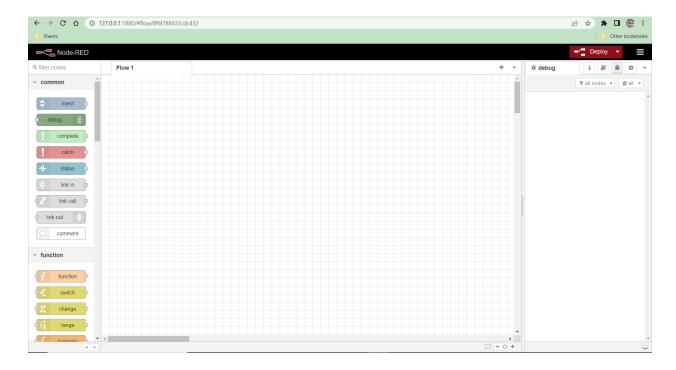
Once installed, you are ready to run Node-RED.

#### C:>node-red

This will output the Node-RED log to the terminal. You must keep the terminal open in order to keep Node-RED running.

```
Microsoft Windows [Version 10.0.19043.1766]
(c) Microsoft Corporation. All rights reserved.
C:\Users\mahid>node-red
6 Jul 15:04:38 - [info]
Welcome to Node-RED
============
6 Jul 15:04:38 - [info] Node-RED version: v2.2.2
6 Jul 15:04:38 - [info] Node.js version: v16.15.1
6 Jul 15:04:38 - [info] Windows NT 10.0.19043 x64 LE
6 Jul 15:04:42 - [info] Loading palette nodes
6 Jul 15:04:46 - [info] Dashboard version 3.1.7 started at /ui
6 Jul 15:04:46 - [info] Settings file : C:\Users\mahid\.node-red\settings.js
6 Jul 15:04:46 - [info] Context store : 'default' [module=memory]
6 Jul 15:04:46 - [info] User directory : \Users\mahid\.node-red
6 Jul 15:04:46 - [warn] Projects disabled : editorTheme.projects.enabled=false
6 Jul 15:04:46 - [info] Flows file : \Users\mahid\.node-red\flows.json
6 Jul 15:04:46 - [info] Server now running at http://127.0.0.1:1880/
6 Jul 15:04:46 - [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.
6 Jul 15:04:46 - [info] Starting flows
6 Jul 15:04:46 - [info] Started flows
```

Select the server address <a href="http://127.0.0.1:1880/">http://127.0.0.1:1880/</a> and paste it in the browser window.



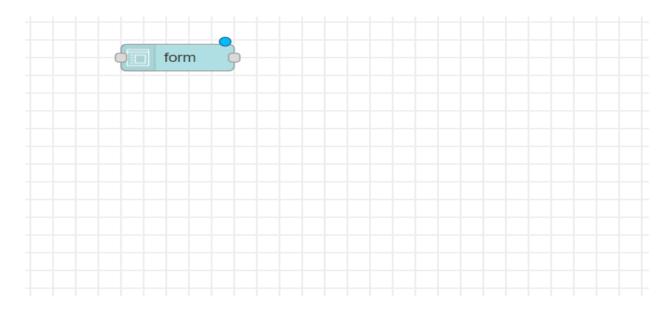
If you are using a browser on the same computer that is running Node-RED, you can access it with the url: http://localhost:1880.

If you are using a browser on another computer, you will need to use the ip address of the computer running Node-RED: http://<ip-address>:1880.

# **Step 4 : Add a Form Node**

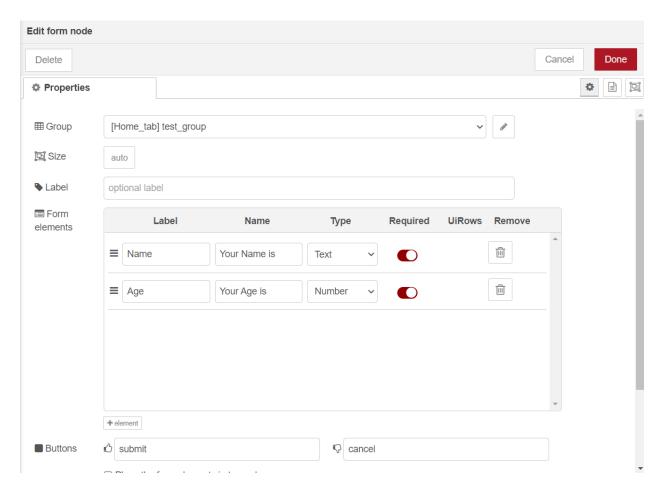
The Form node allows you to take the input values into a flow.

Drag one onto the workspace from the palette.



Select the newly added Form node to see information about its properties and a description of what it does in the Information sidebar panel.

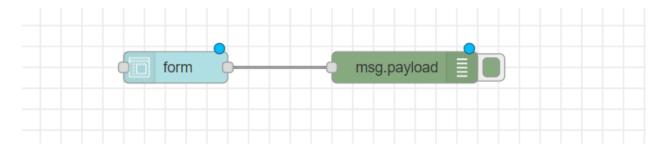
Now lets create a from which the Name and Age as inputs. After Adding Click on done.



## Step 5: Add a Debug node

The Debug node causes any message to be displayed in the Debug sidebar. By default, it just displays the payload of the message, but it is possible to display the entire message object.

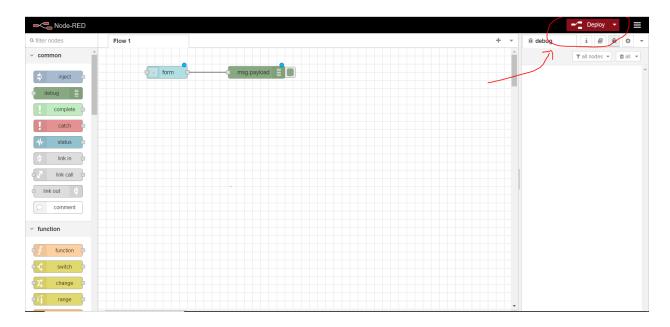
Connect the Form and Debug nodes together by dragging between the output port of one to the input port of the other.



## **Step 6: Deploy**

At this point, the nodes only exist in the editor and must be deployed to the server.

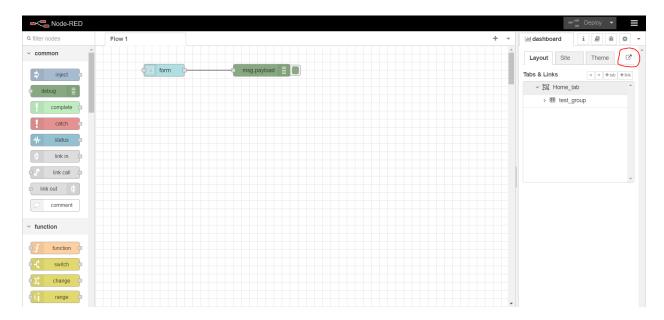
Click the Deploy button.



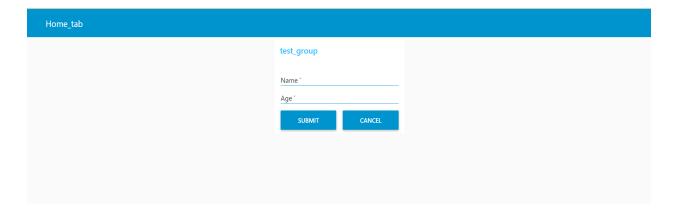
If everything is correct, It display a pop up as Successfully Deployed.

# **Step 7: Entering The Values**

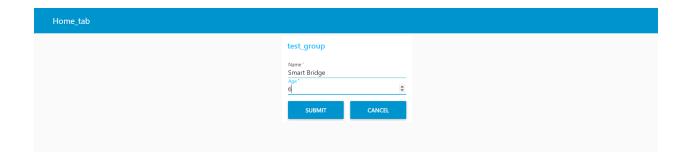
Go to the dashboard that just below the deploy button and click on this symbol



It will redirect to the node red you in the new tab of your browser, which looks like this.

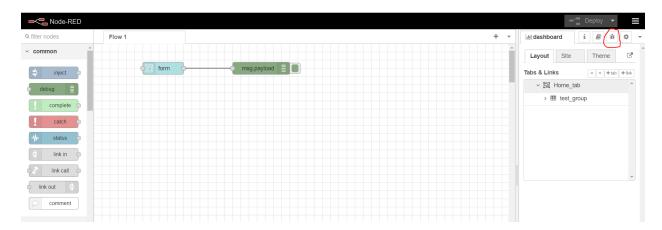


Here enter the name and age and click on submit button.

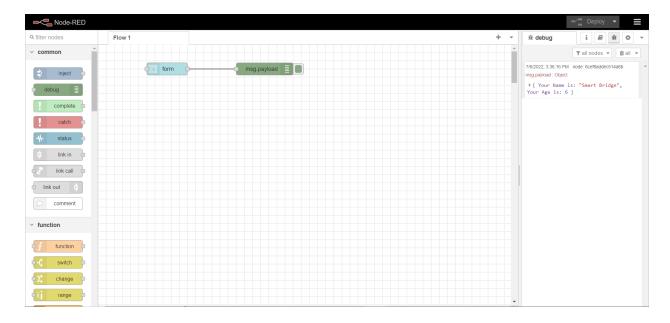


Step 8: Checking the Output

After Clicking submit button, come to the node red editor tab and click on Debug Messages which will next to the dashboard with this symbol.



After clicking on it in the sidebar you can see the name and age you entered.



That's it you have created a flow with form and debug nodes that takes name and age as inputs and displays it.