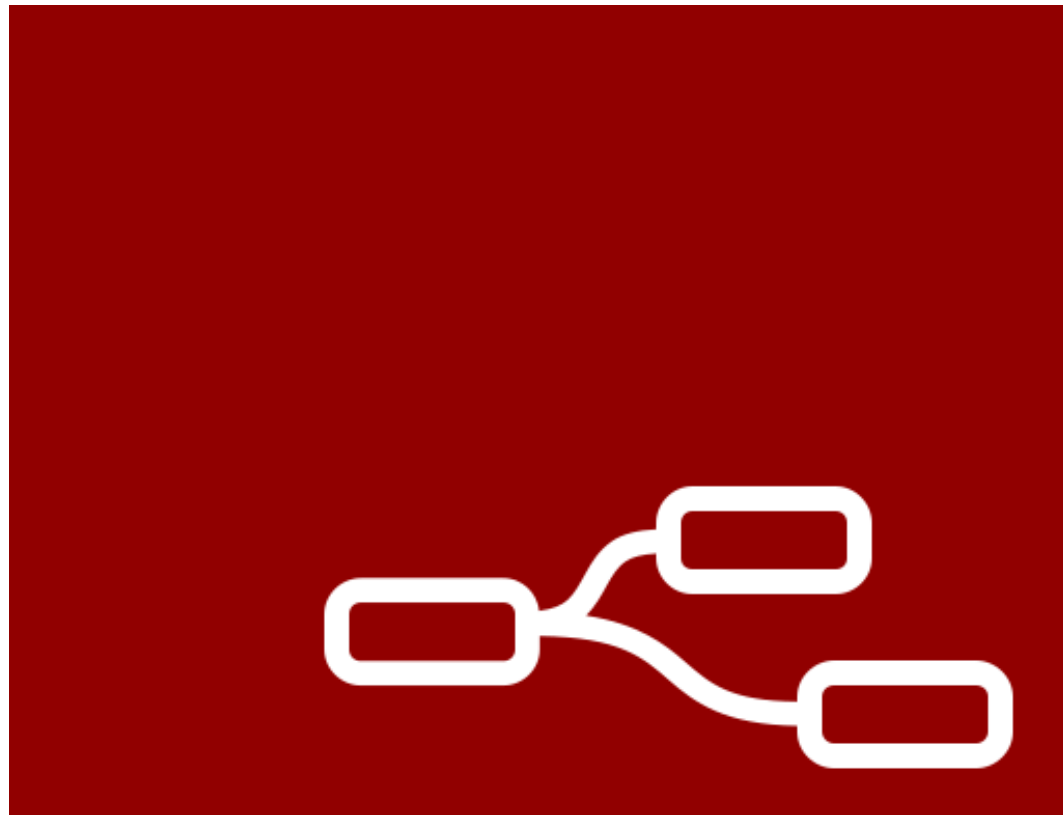


INTERNET OF THINGS

3.1

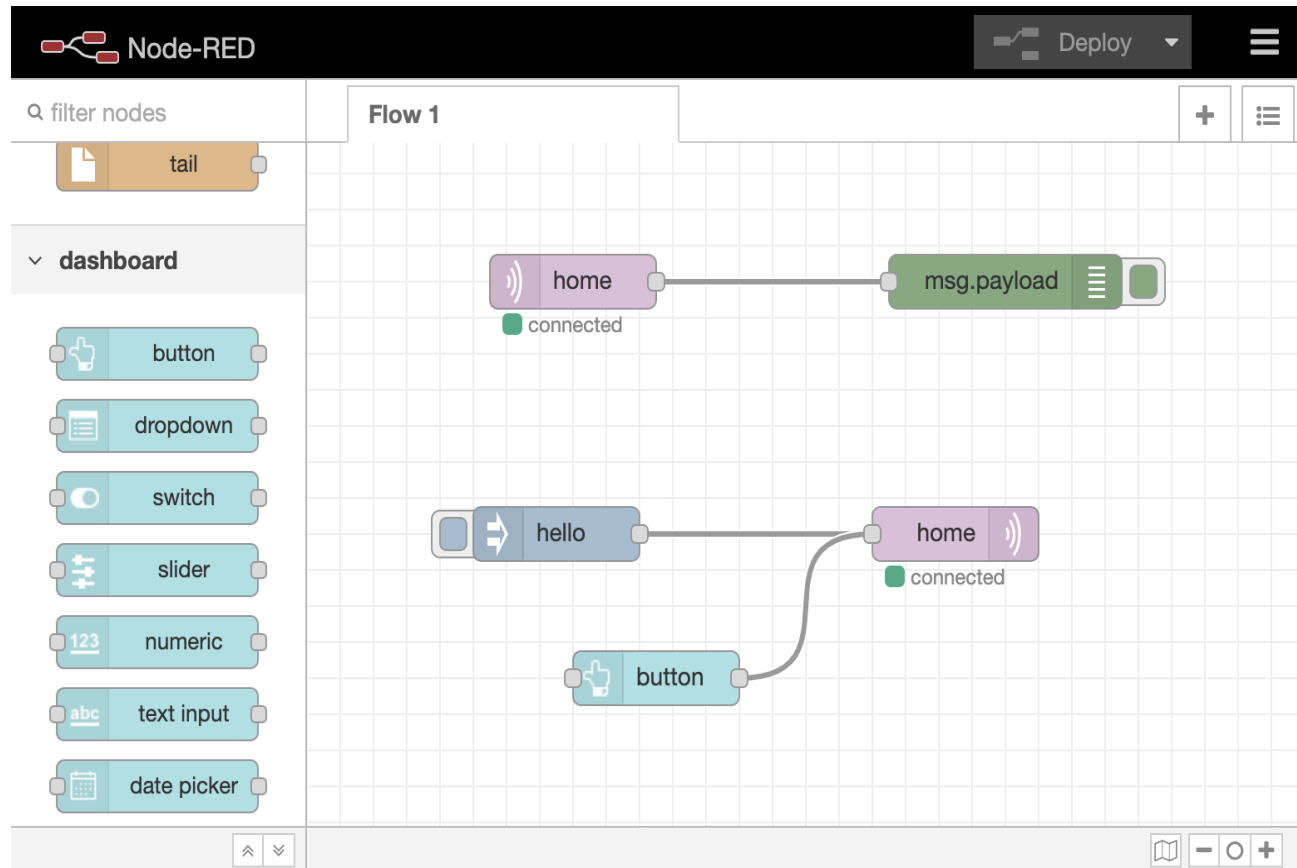
NODERED



Node-RED

NODERED

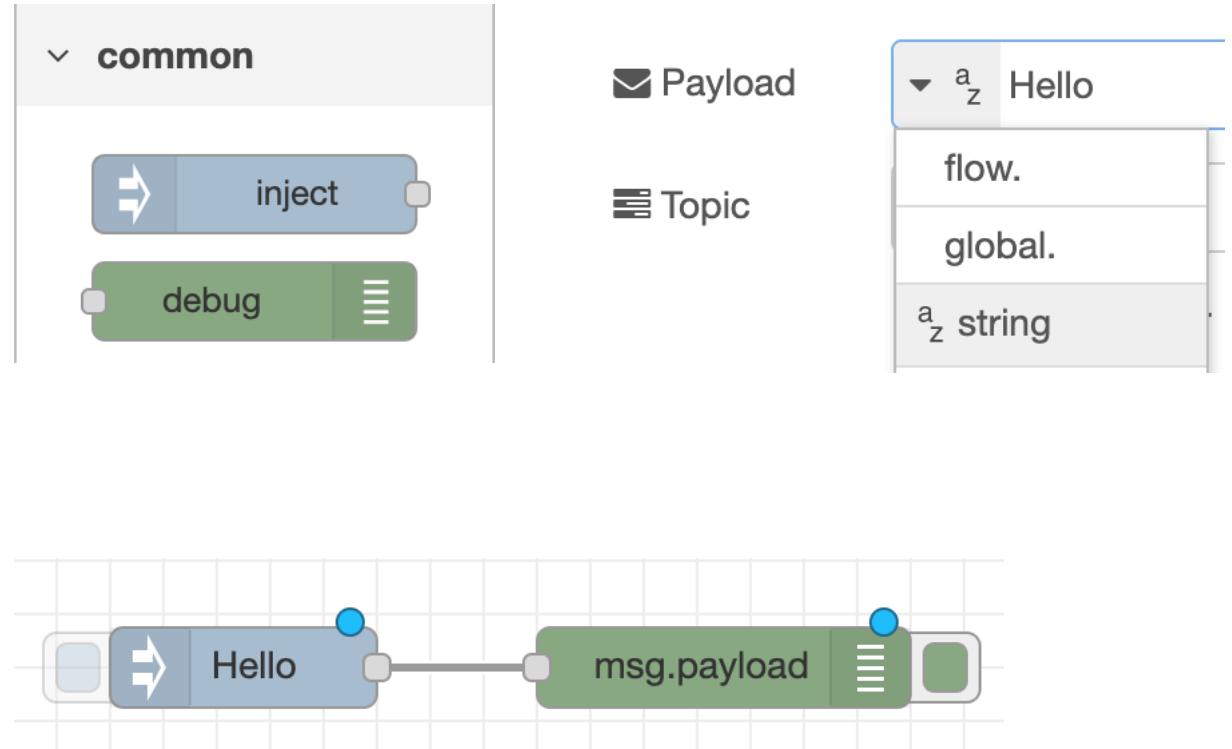
INSTALL NODE-RED



- Install NODE-RED by following this instruction:
<https://dientuviet.com/node-red-la-gi/>
- Open Web Browser, go to <http://localhost:1880>

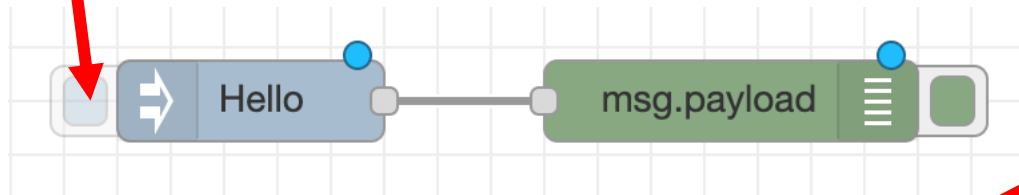
NODE-RED: HELLO WORLD!

- Drag & Drop an **inject node** (input)
- Drag & Drop a **debug node** (output)
- Connect 2 nodes together
- DoubleClick **inject node** to open node properties window, change Payload to “**string**” and input a string “**Hello World**”

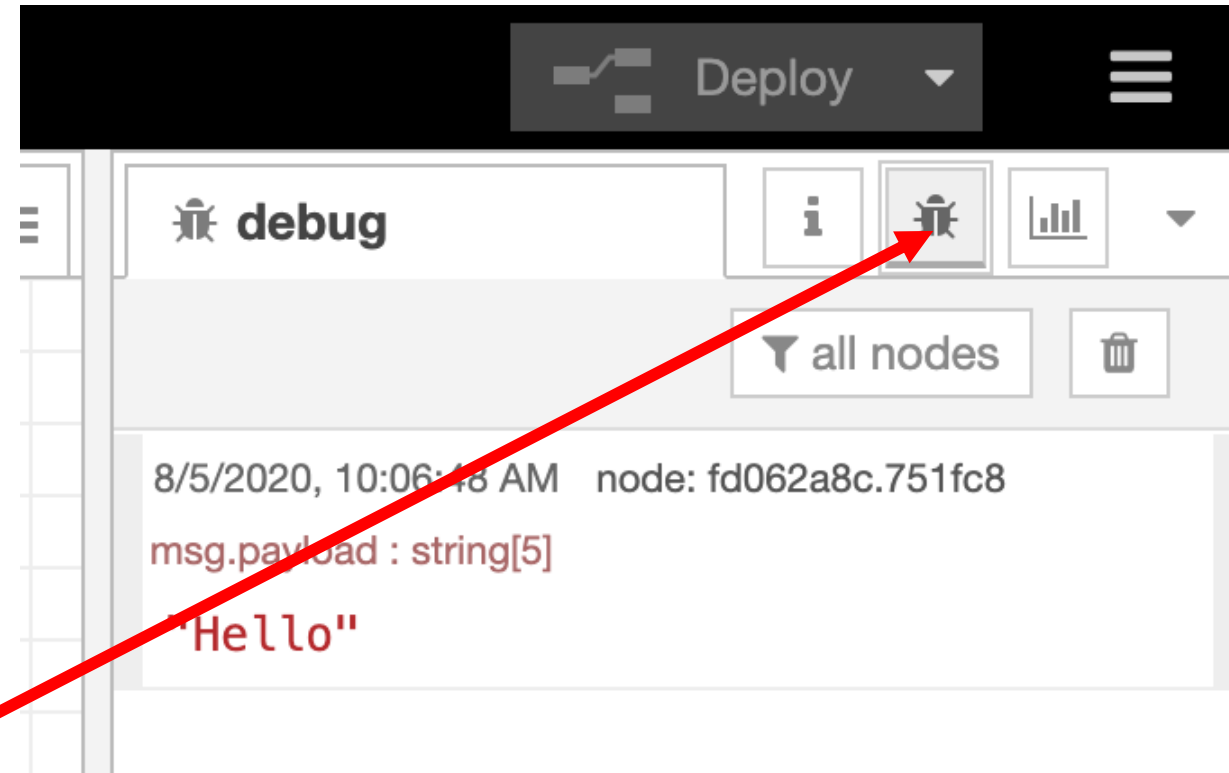


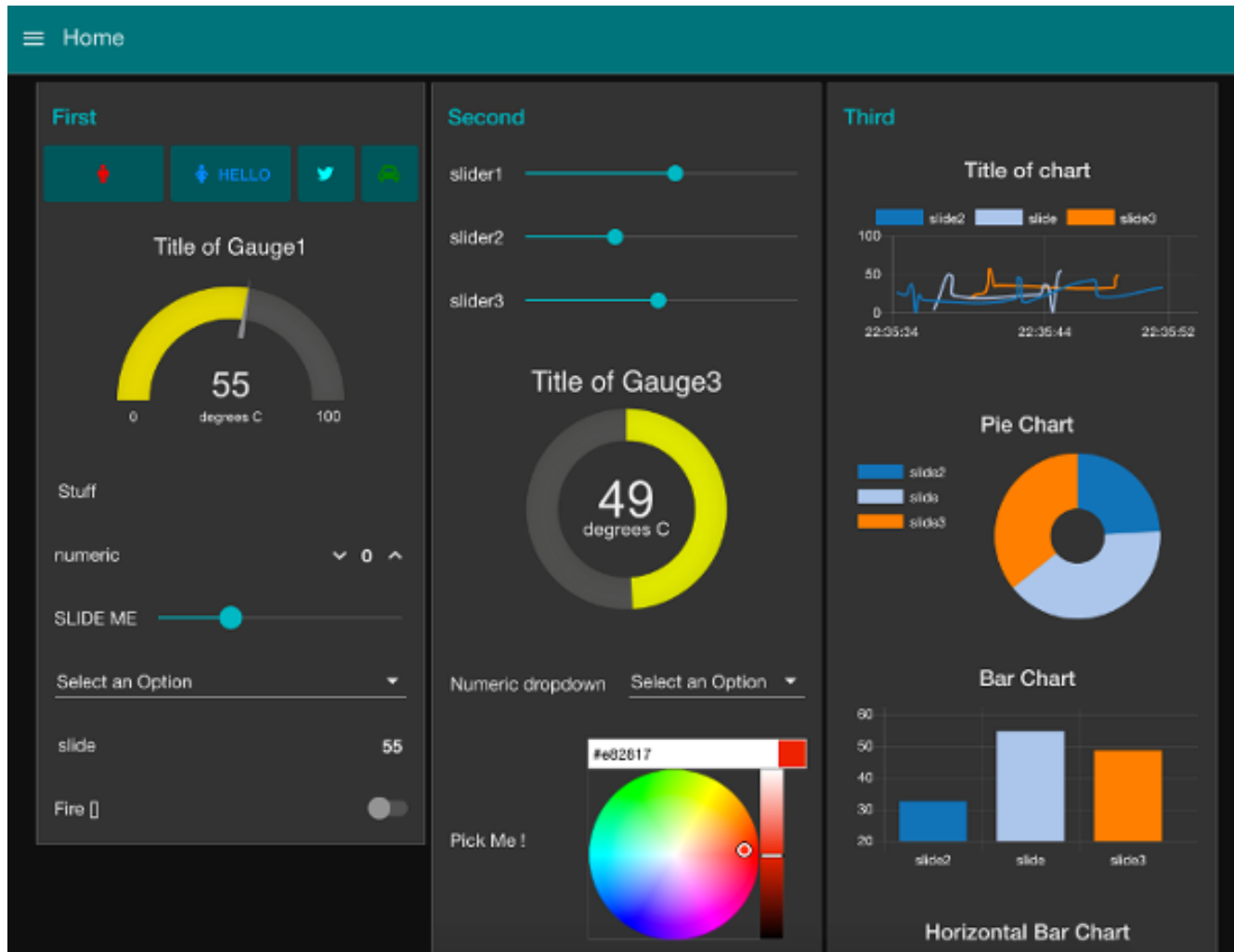
NODE-RED: HELLO WORLD! (tt)

- Deploy project (select **Deploy button** on the top right hand)
- **Trigger** to send a string "Hello World" from inject node to debug node



- View result on **Debug window**

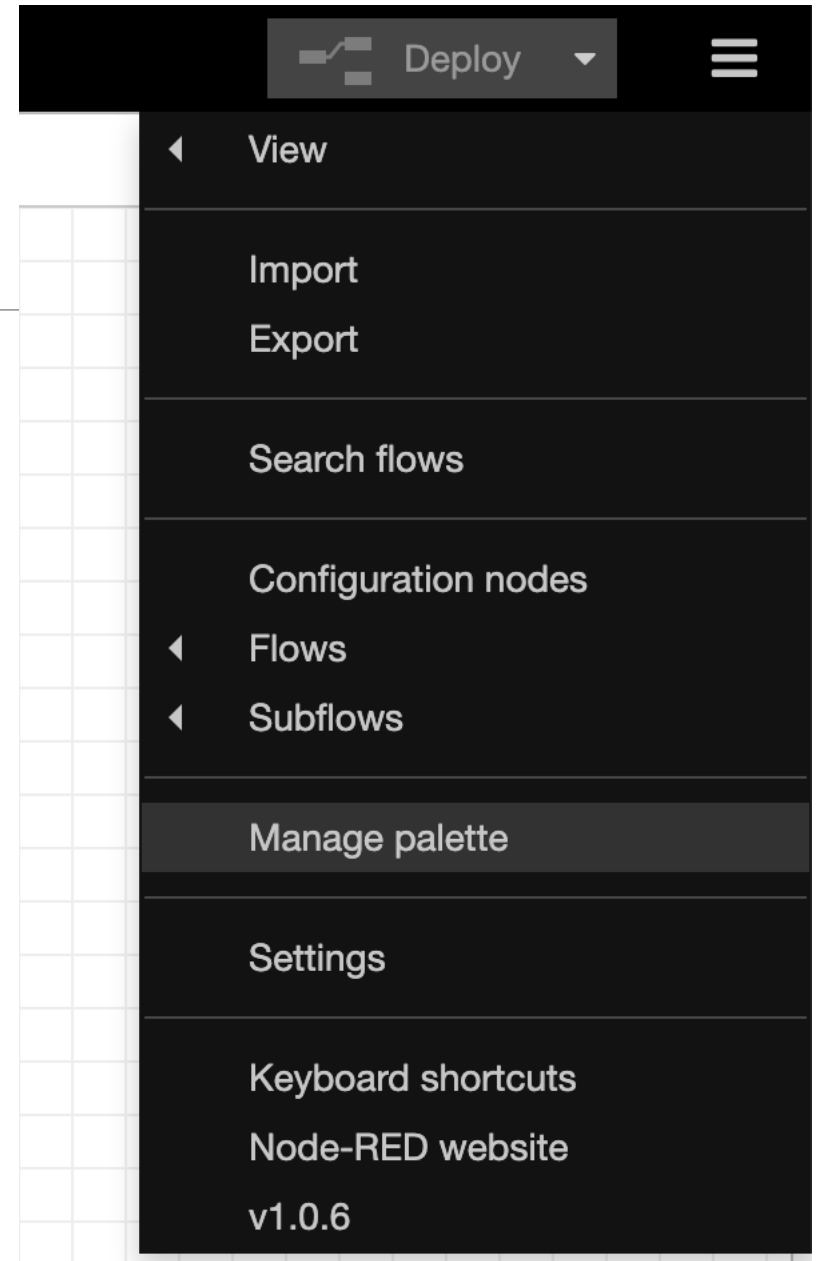




NODERED-UI

INSTALL NODE-RED-UI

- Select **Top-Right icon > Manage palette < Install tab**
- Search “**node-red-dashboard**” > **install**
- Restart node-red



INSTALL NODE-RED-UI (tt)

- Search “node-red-dashboard” > install
- Restart node-red

The screenshot displays the 'User Settings' dialog box in Node-RED. The 'Nodes' tab is selected, and the search bar contains 'node-red-dashboard'. The results list two items:

Node Name	Description	Version	Updated	Status
node-red-dashboard	A set of dashboard nodes for Node-RED	2.23.0	3 weeks ago	installed
node-red-node-ui-list	Node-RED Dashboard UI widget node for simple list	0.3.1	1 month ago	install

The interface includes a 'Close' button in the top right, a 'View' sidebar on the left, and sorting options (sort: a-z, recent) in the top right of the results area.

INSTALL NODE-RED-UI (tt)

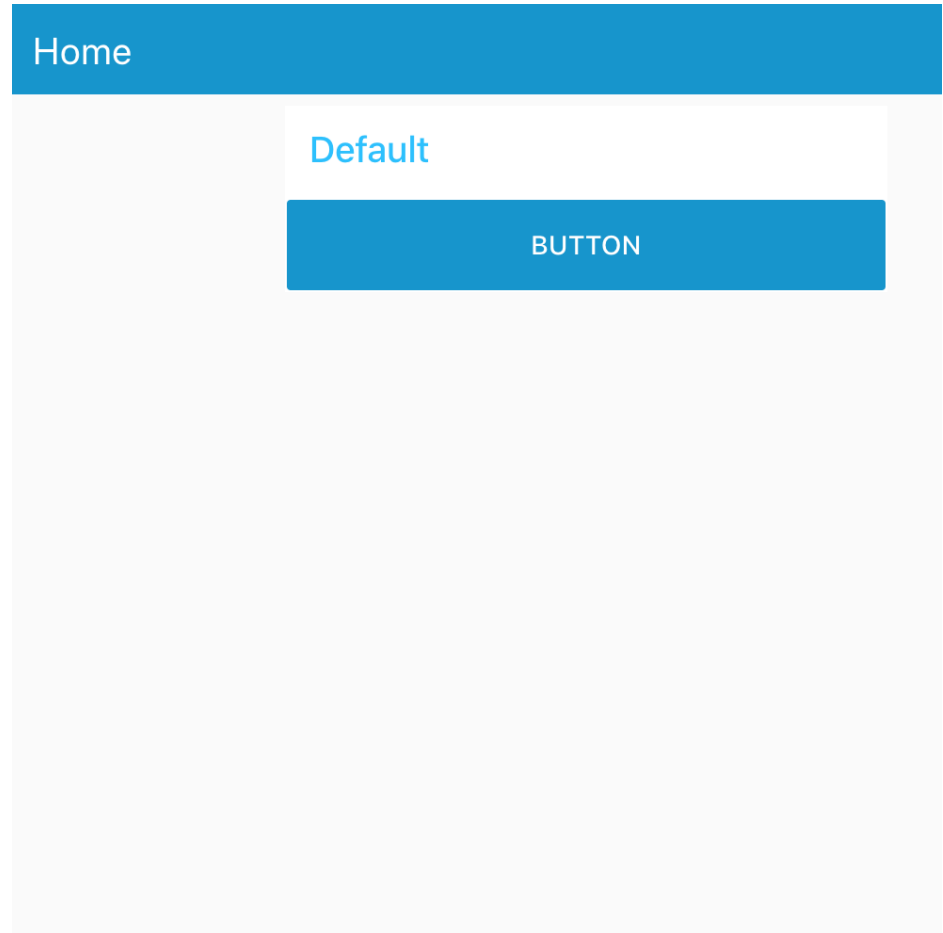
- Drag & Drop a **Button node** on tab **Dashboard**
- DoubleClick Button to configure properties
- Edit **Group** properties > **Tab** properties > enter **Name** of Tab > **Update** > **Update** > **Done**

The screenshot shows the 'Edit dashboard group node' dialog box in Node-RED. The title bar reads 'Edit button node > Edit dashboard group node'. Below the title bar are three buttons: 'Delete', 'Cancel', and 'Update'. The 'Update' button is highlighted in red. Below the buttons is a 'Properties' section with a gear icon and a document icon. The 'Properties' section contains the following fields and options:

- Name:** A text input field containing 'Default'.
- Tab:** A dropdown menu showing 'Home' with a downward arrow and a pencil icon to its right.
- Width:** A text input field containing '6'.
- ☒ Display group name
- ☐ Allow group to be collapsed

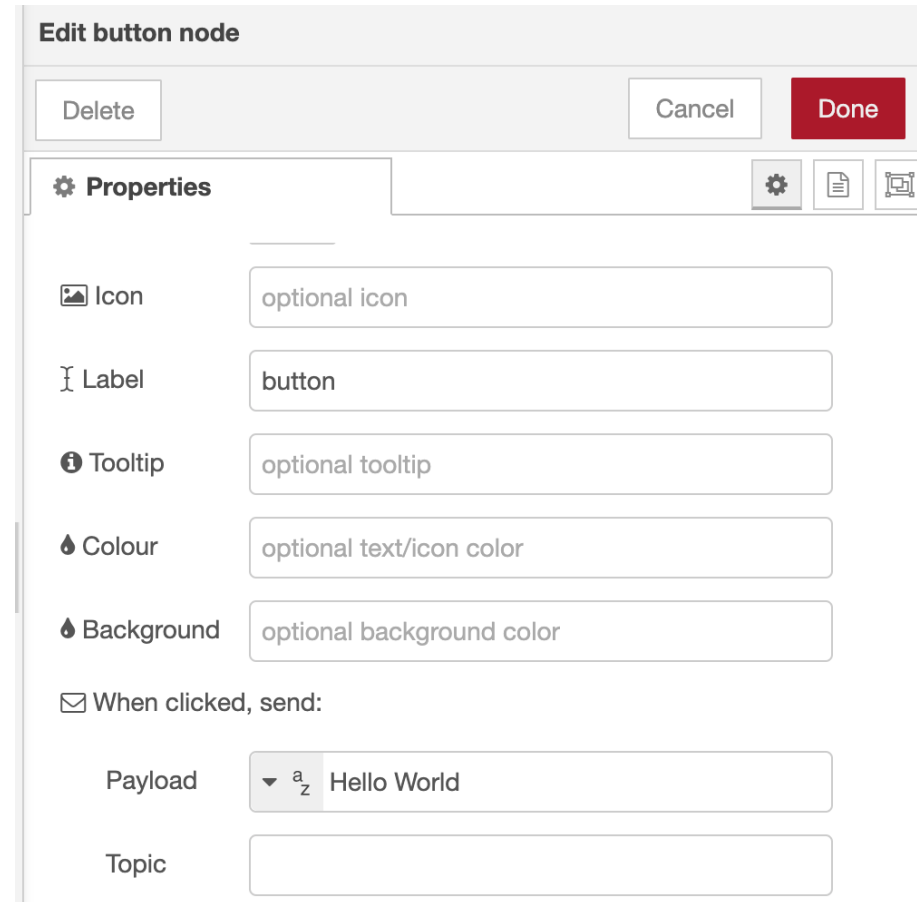
INSTALL NODE-RED-UI (tt)

- Deploy
- Run <http://localhost:1880/ui>



INSTALL NODE-RED-UI (tt)

- Edit **Payload** properties of **Button**
node > input “**Hello World**” string to
Payload field
- **Done**



The screenshot shows the 'Edit button node' dialog in Node-RED. The 'Properties' tab is active, displaying several configuration fields:

- Delete**, **Cancel**, and **Done** buttons at the top.
- Properties** tab selected, with icons for settings, help, and a preview.
- Icon**: optional icon (text input)
- Label**: button (text input)
- Tooltip**: optional tooltip (text input)
- Colour**: optional text/icon color (text input)
- Background**: optional background color (text input)
- When clicked, send:** checkbox is checked.
- Payload**: dropdown menu showing 'a_z' and 'Hello World' (text input)
- Topic**: (text input)

INSTALL NODE-RED-UI (tt)

- Drag & Drop a **Text** node
- Connect the **Button** node to **Text** node
- Deploy & Run



Group [Home] Default

Size auto

Label text

Value format {{msg.payload}}

Layout

label value label value label value

label value label value

Name