23/04/21

Neeraj Appan 107

SDS Page No.
Date

IOT Practical 2

Aim: Run the node red editor and run simple programs and toggle gpios. Use basic nodes such as inject, debug, gpio

Steps

1) Access the editor

2) Add an inject node

Drag one node onto the workspace

Select the newly added inject node to see the information about its property and description

3) Add a Debug Node

4) ~~The~~ Wire the two together

Connect the inject and debug nodes together by dragging between the output port of one to the input port of the other

5) Deploy

Click the deploy button

With the Debug sidebar tab selected, click the inject button.

Neeraj Appoi 7073

SDS Page No.
Date / /

6) Add a function node

Delete the existing wire (select it and press delete on keyboard)

Wire a function node in between inject and debug node)

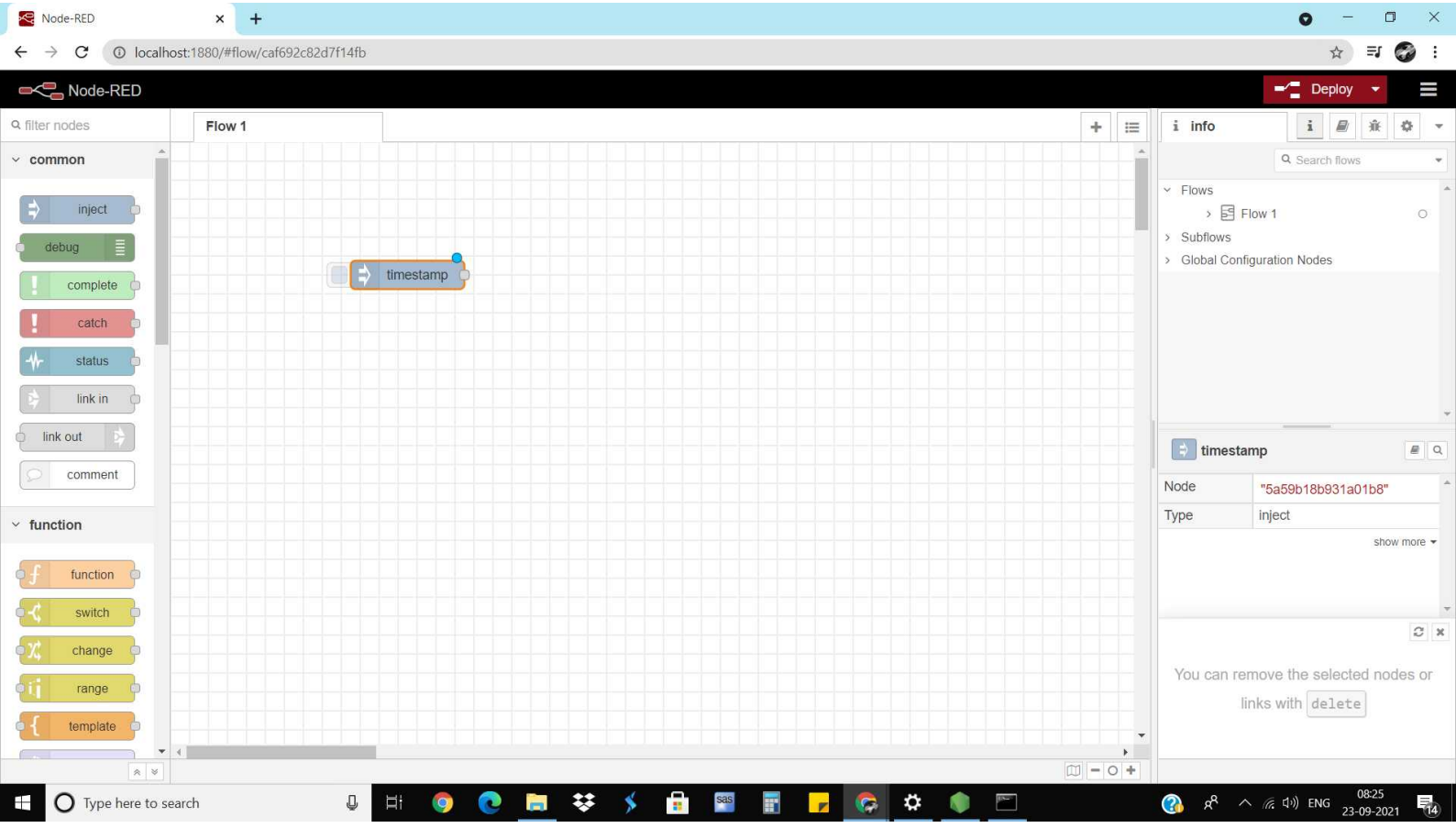
Doulue click on the function node to bring up the edit dailog. Write the code in function field

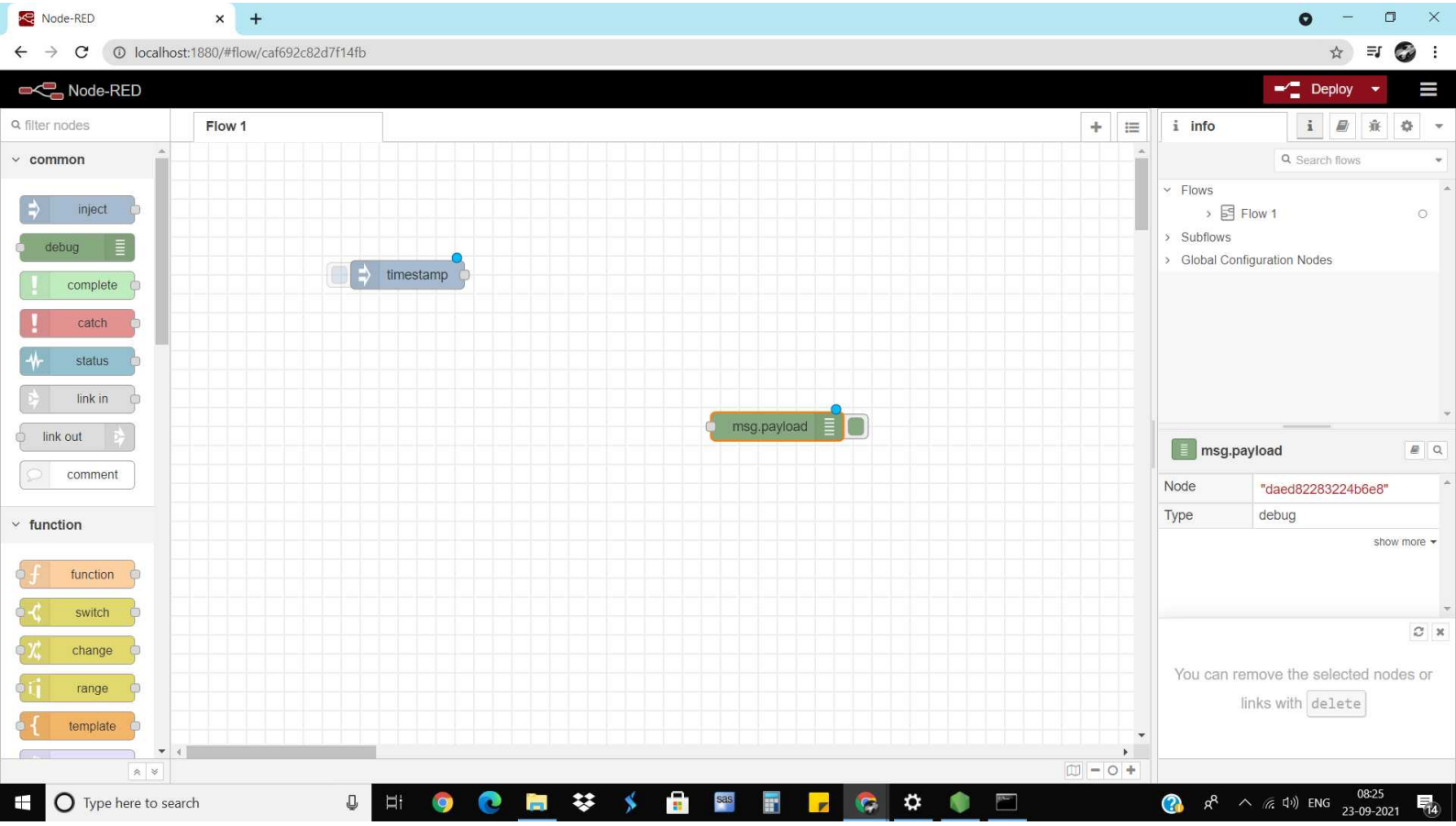
Click done to close the edit dailog and then click the deploy button

node-red

```
Microsoft Windows [Version 10.0.17763.1577]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\LAXMINARAYANRO>choco install nvs
'choco' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\LAXMINARAYANRO>node --version && npm --version
v14.17.6
6.14.15

C:\Users\LAXMINARAYANRO>npm install -g --unsafe-perm node-red
C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node-red-pi -> C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node_modules\node-red\bin\node-red-pi
C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node-red -> C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node_modules\node-red\red.js

> bcrypt@5.0.1 install C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node_modules\node-red\node_modules\bcrypt
> node-pre-gyp install --fallback-to-build

[bcrypt] Success: "C:\Users\LAXMINARAYANRO\AppData\Roaming\npm\node_modules\node-red\node_modules\bcrypt\lib\binding\napi-v3\bcrypt_lib.node" is installed via remote
+ node-red@2.0.6
added 292 packages from 373 contributors in 60.84s

C:\Users\LAXMINARAYANRO>node-red
23 Sep 08:22:53 - [info]

Welcome to Node-RED
===================

23 Sep 08:22:53 - [info] Node-RED version: v2.0.6
23 Sep 08:22:53 - [info] Node.js  version: v14.17.6
23 Sep 08:22:53 - [info] Windows_NT 10.0.17763 x64 LE
23 Sep 08:22:54 - [info] Loading palette nodes
23 Sep 08:22:57 - [info] Settings file  : C:\Users\LAXMINARAYANRO\.node-red\settings.js
23 Sep 08:22:57 - [info] Context store  : 'default' [module=memory]
23 Sep 08:22:57 - [info] User directory : C:\Users\LAXMINARAYANRO\.node-red
23 Sep 08:22:57 - [warn] Projects disabled : editorTheme.projects.enabled=false
23 Sep 08:22:57 - [info] Flows file     : C:\Users\LAXMINARAYANRO\.node-red\flows.json
23 Sep 08:22:57 - [info] Creating new flow file
23 Sep 08:22:57 - [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.
```

Type here to search
ENG
08:23
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
timestamp
Node
"5a59b18b931a01b8"
Type
inject
show more
You can remove the selected nodes or links with delete
Type here to search
ENG
08:25
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
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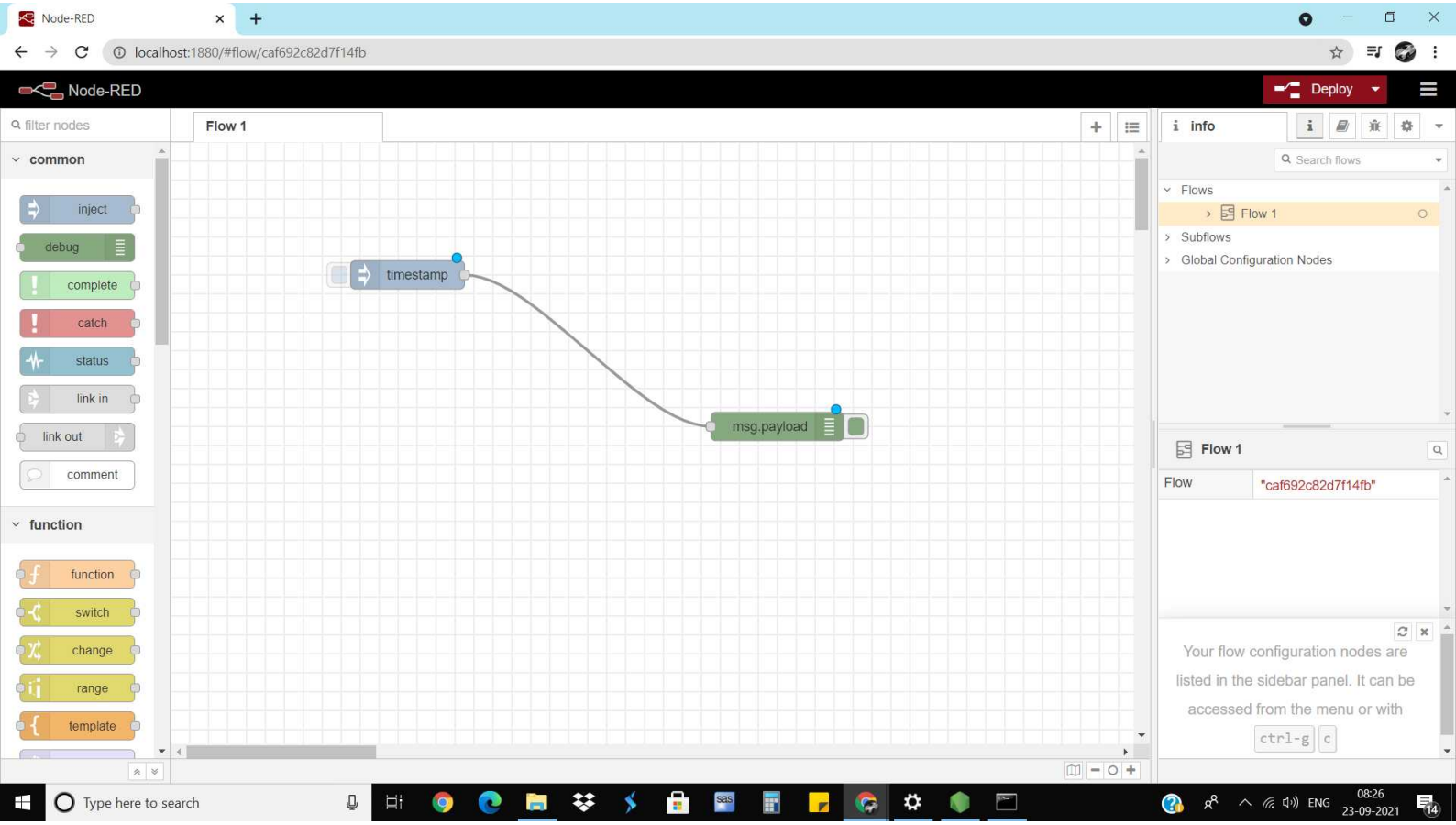
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
msg.payload
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
msg.payload
Node
"daed82283224b6e8"
Type
debug
show more
You can remove the selected nodes or links with delete
Type here to search
ENG
08:25
23-09-2021


Node-RED
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Node-RED
Deploy
filter nodes
Flow 1
common
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debug
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function
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switch
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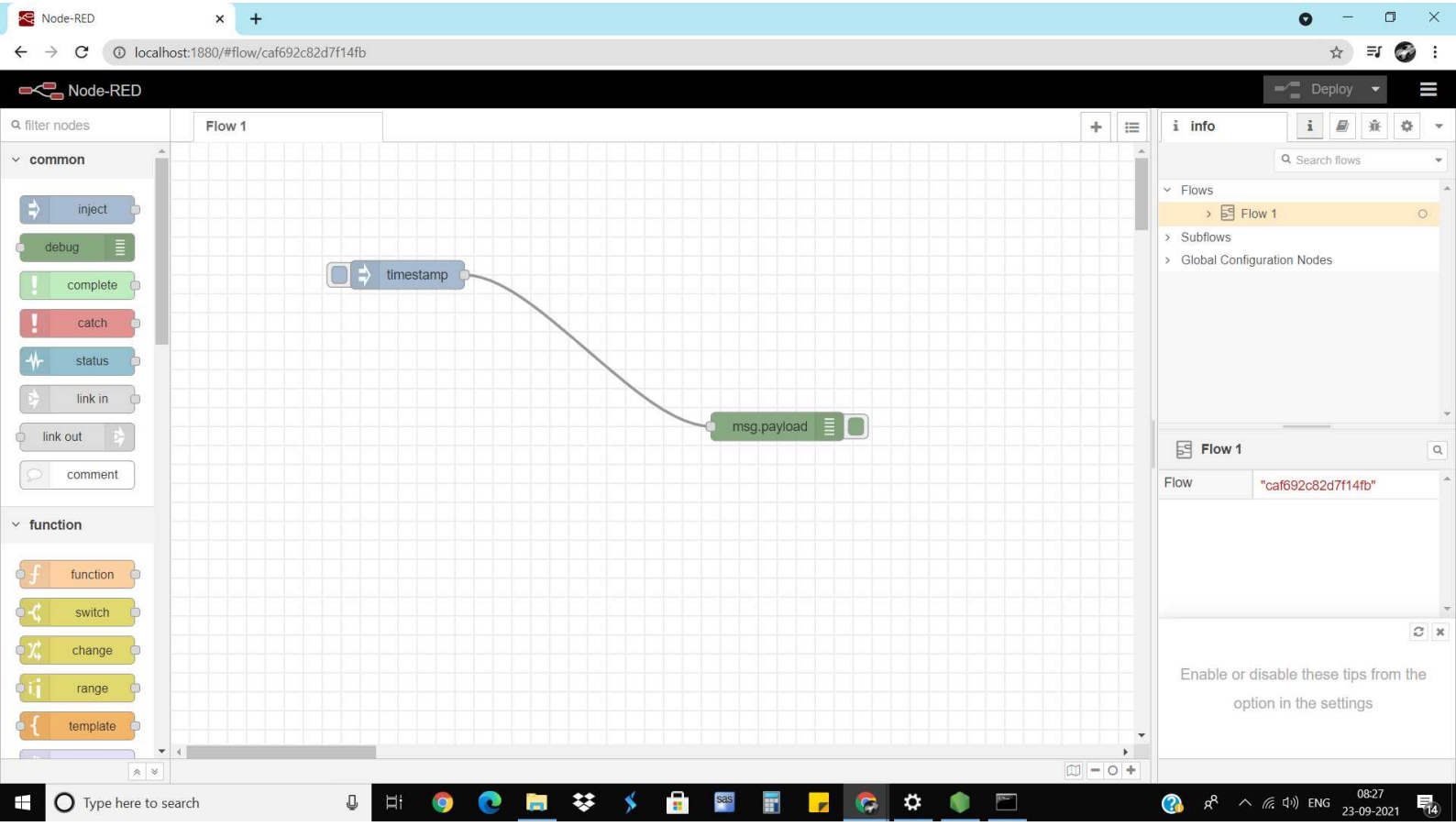
range
template
timestamp
msg.payload
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
Flow 1
Flow
"caf692c82d7f14fb"
Your flow configuration nodes are listed in the sidebar panel. It can be accessed from the menu or with
ctrl-g
c
Type here to search
ENG
08:26
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
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catch
status
link in
link out
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function
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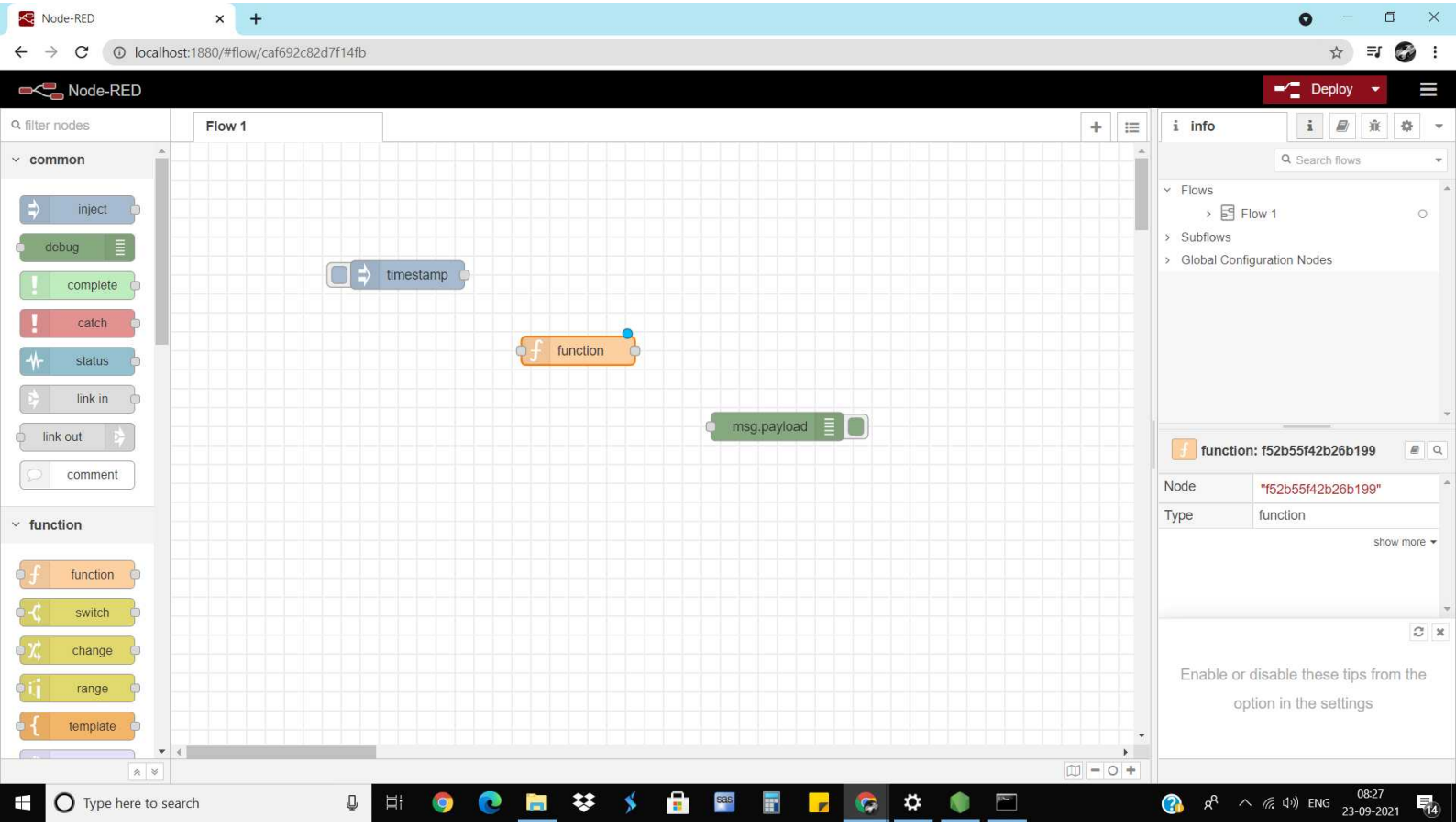
switch
change
range
template
timestamp
msg.payload
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
Flow 1
Flow
"caf692c82d7f14fb"
Enable or disable these tips from the option in the settings
Type here to search
ENG
08:27
23-09-2021


Node-RED
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Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
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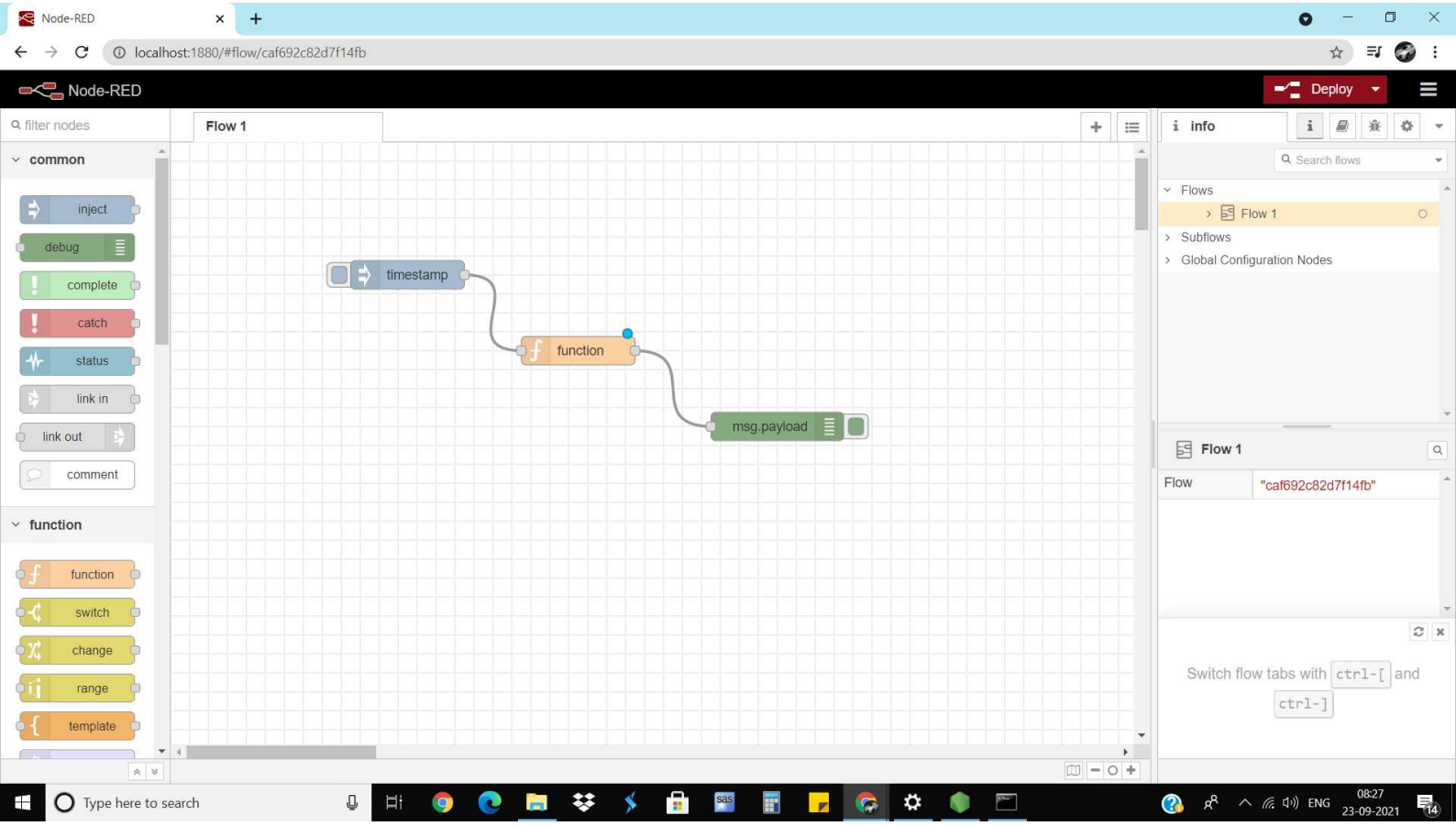
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
function
msg.payload
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
function: f52b55f42b26b199
Node
"f52b55f42b26b199"
Type
function
show more
Enable or disable these tips from the option in the settings
Type here to search
ENG
08:27
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
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inject
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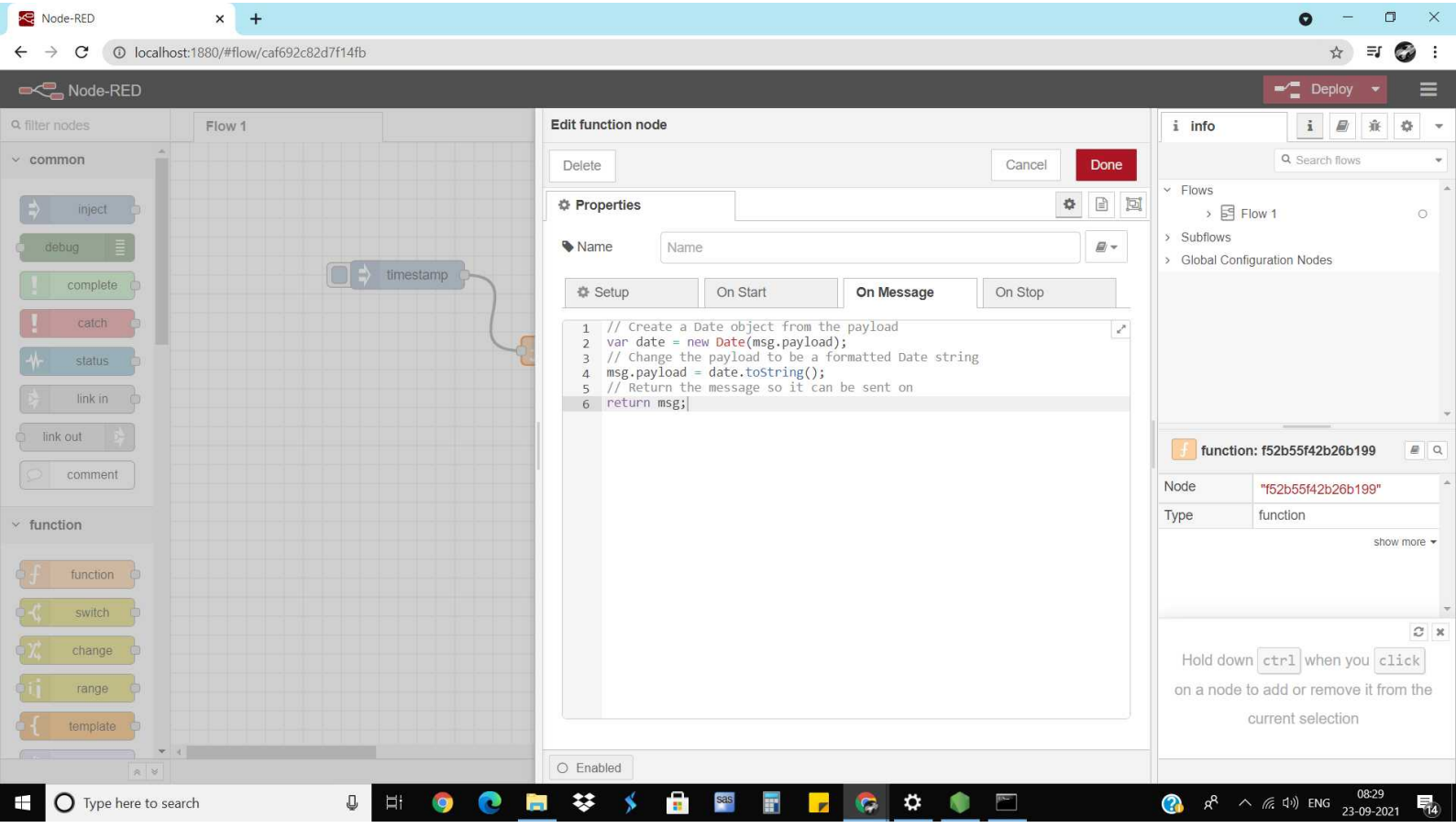
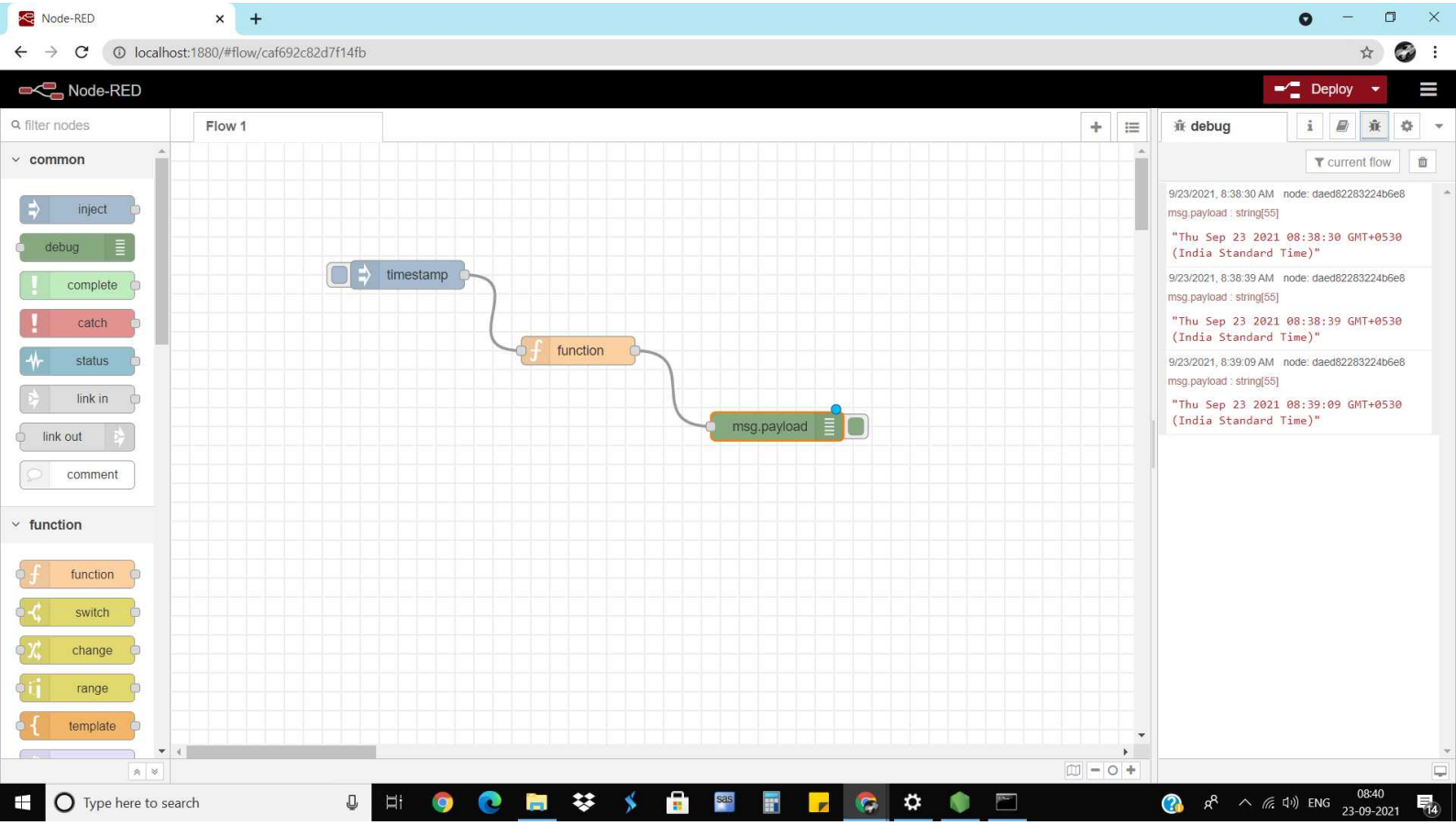
complete
catch
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
function
msg.payload
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
Flow 1
Flow
"caf692c82d7f14fb"
Switch flow tabs with ctrl-[and ctrl-]
Type here to search
ENG
08:27
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
On Start
On Message
On Stop
1 // Create a Date object from the payload
2 var date = new Date(msg.payload);
3 // Change the payload to be a formatted Date string
4 msg.payload = date.toString();
5 // Return the message so it can be sent on
6 return msg;
Enabled
info
Search flows
Flows
Flow 1
Subflows
Global Configuration Nodes
function: f52b55f42b26b199
Node
"f52b55f42b26b199"
Type
function
show more
Hold down ctrl when you click on a node to add or remove it from the current selection
Type here to search
ENG
08:29
23-09-2021


Node-RED
localhost:1880/#flow/caf692c82d7f14fb
Node-RED
Deploy
filter nodes
Flow 1
debug
common
inject
debug
complete
catch
status
link in
link out
comment
function
function
switch
change
range
template
timestamp
function
msg.payload
current flow
9/23/2021, 8:38:30 AM node: daed82283224b6e8
msg.payload : string[55]
"Thu Sep 23 2021 08:38:30 GMT+0530 (India Standard Time)"
9/23/2021, 8:38:39 AM node: daed82283224b6e8
msg.payload : string[55]
"Thu Sep 23 2021 08:38:39 GMT+0530 (India Standard Time)"
9/23/2021, 8:39:09 AM node: daed82283224b6e8
msg.payload : string[55]
"Thu Sep 23 2021 08:39:09 GMT+0530 (India Standard Time)"
Type here to search
ENG
08:40
23-09-2021