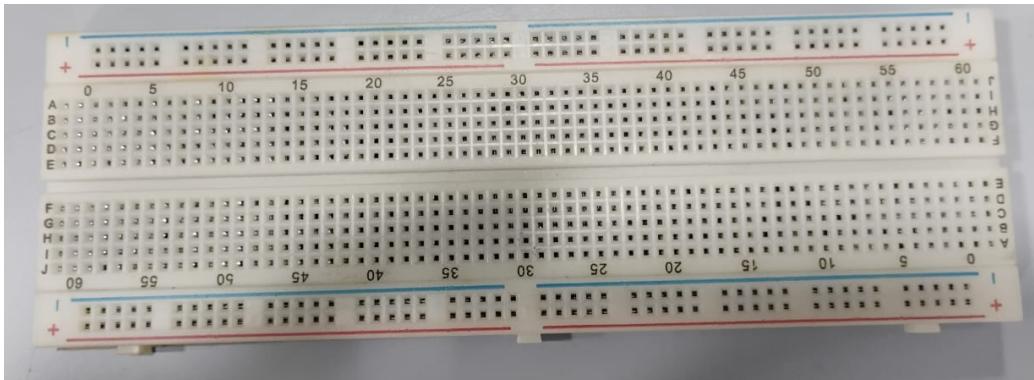


# Practical No 6

Aim: working of node-RED in raspberry pi

Step 1: Take Bread Board.



Step 2: Make the connections of led, resistors and jumper wires accordingly.



Step 3 : Run the install command for node-RED in terminal.

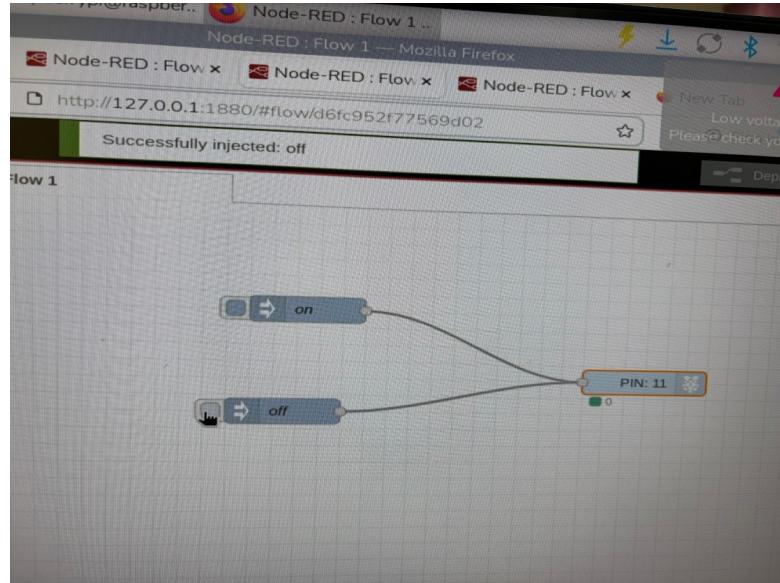
```
C:\Users\Admin>npm install -g --unsafe-perm node-red
npm warn "node-red" is being parsed as a normal command line argument.
npm warn Unknown cli config "--unsafe-perm". This will stop working in the next major version of npm.
added 294 packages in 3s
53 packages are looking for funding
  run 'npm fund' for details
C:\Users\Admin>node-red
14 Jan 09:51:24 - [info] Welcome to Node-RED
14 Jan 09:51:24 - [info] Node-RED version: v4.1.3
14 Jan 09:51:24 - [info] Node.js version: v24.11.0
14 Jan 09:51:24 - [info] Windows_NT 10.0.26290 x64 LE
14 Jan 09:51:24 - [info] Loading palette nodes
14 Jan 09:51:24 - [info] Settings file : C:\Users\Admin\node-red\settings.js
14 Jan 09:51:24 - [info] Context store : "default" (modulesemory)
14 Jan 09:51:24 - [info] User directory : C:\Users\Admin\node-red
14 Jan 09:51:24 - [info] Projects disabled : editorTheme.projects.enabled=false
14 Jan 09:51:24 - [info] Flows file : C:\Users\Admin\node-red\flows.json
14 Jan 09:51:24 - [warn] Creating new flow file

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.

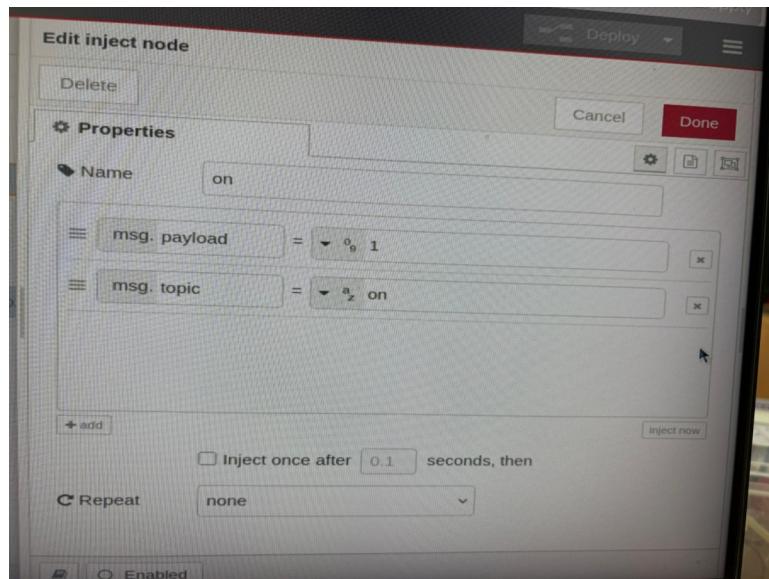
You should set your own key using the 'credentialsSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.

14 Jan 09:51:25 - [warn] Encrypted credentials not found
14 Jan 09:51:25 - [info] Server now running at http://127.0.0.1:1880/
14 Jan 09:51:25 - [info] Starting flows
14 Jan 09:51:25 - [info] Started flows
```

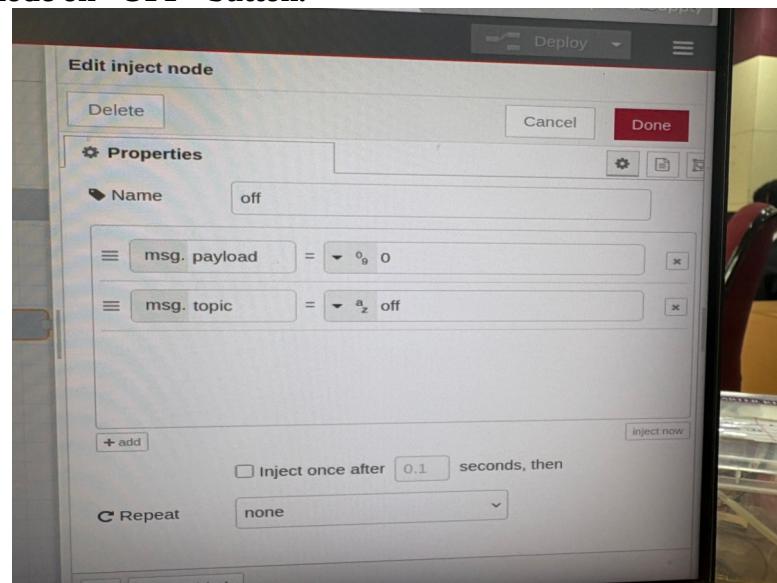
**Step 4 : Open node-RED and take all the buttons.**



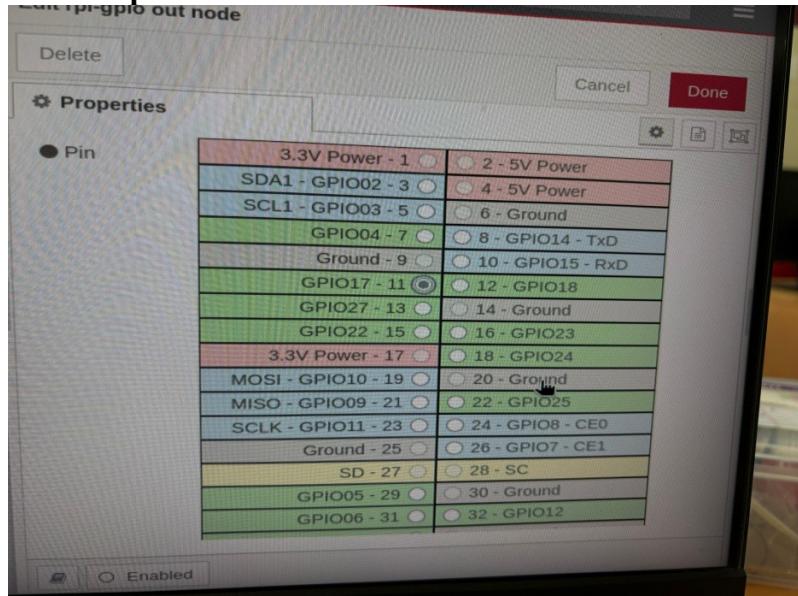
**Step 5: Edit inject node on “ON” button.**



**Step 6: Edit inject node on “OFF” button.**



## Step 7: Configure the GPIO pins.



Step 8 : When you click the switch on button the led turns on, and once you click the off button the led turns off.

