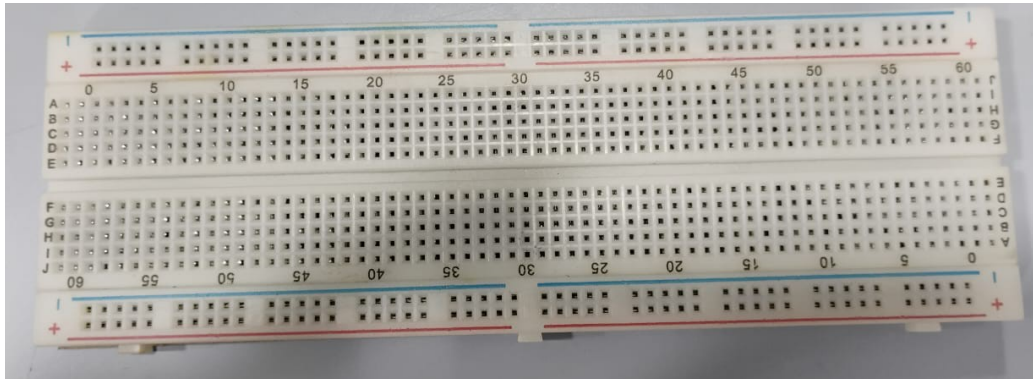


Practical No 6

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 passed 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 35s
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

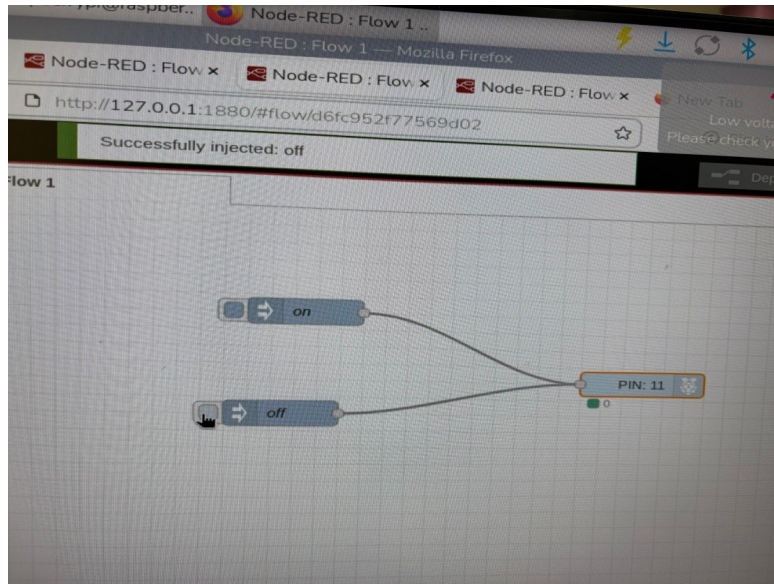
14 Jan 09:51:24 - [info] Node-RED version: v4.1.3
14 Jan 09:51:24 - [info] Node.js version: v24.11.0
14 Jan 09:51:24 - [info] Windows_NT 10.0.26200 x64 LE
14 Jan 09:51:25 - [info] Loading palette nodes
14 Jan 09:51:25 - [info] Settings file : C:\Users\Admin\.node-red\settings.js
14 Jan 09:51:25 - [info] Context store : 'default' [module=memory]
14 Jan 09:51:25 - [warn] Projects disabled : editorTheme.projects.enabled=false
14 Jan 09:51:25 - [info] Flows file : \Users\Admin\.node-red\flows.json
14 Jan 09:51:25 - [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.

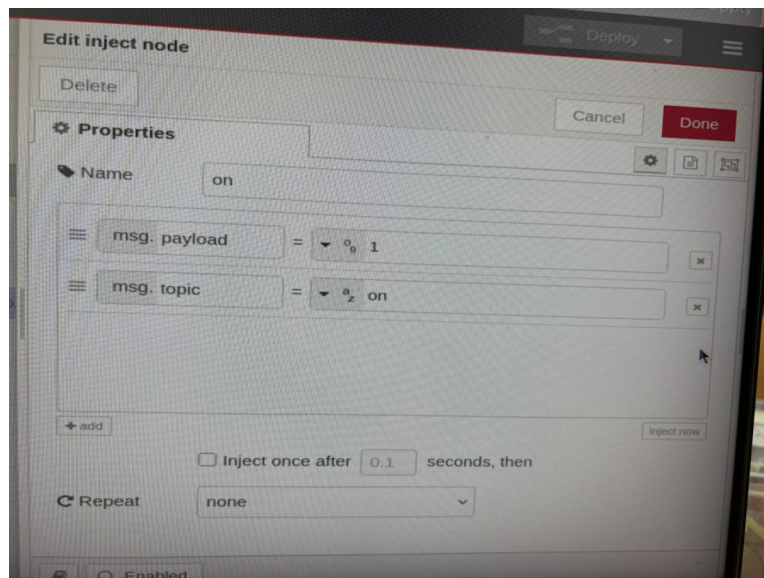
You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.

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
```

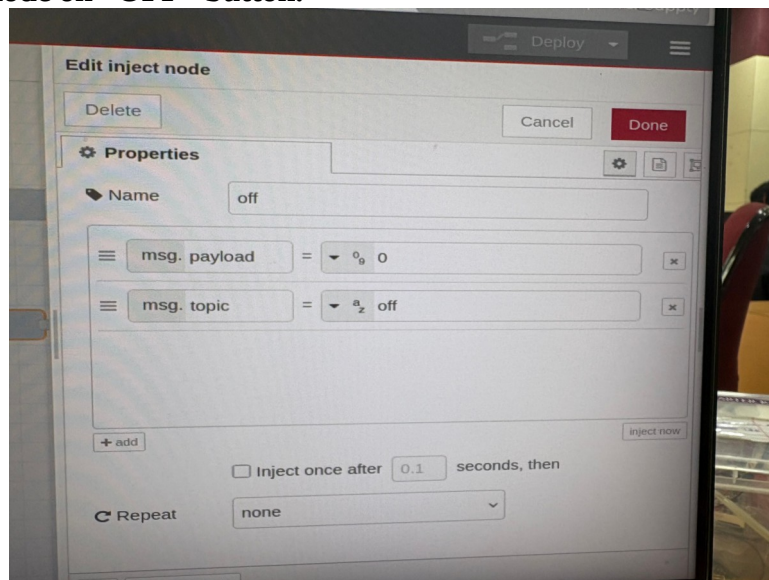
Step 4 : Open node-RED and take all the buttons.



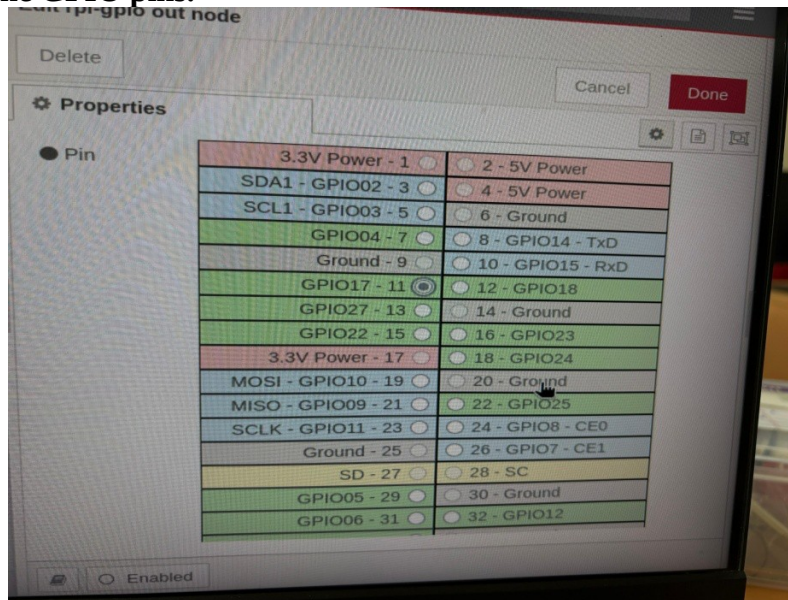
Step 5: Edit inject node on “ON” button.



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.

