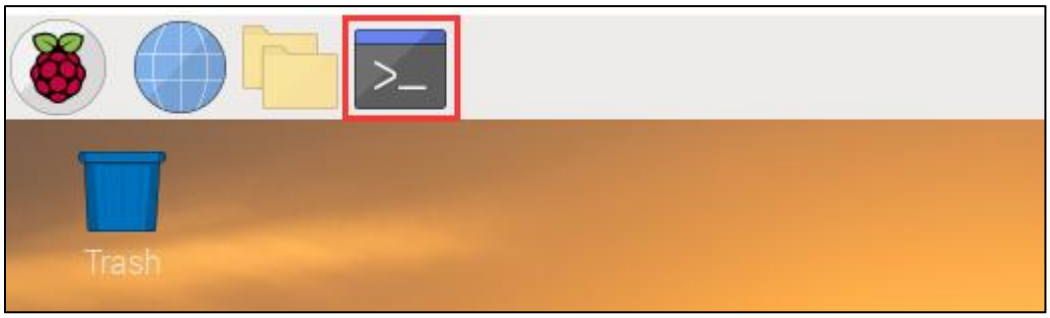
Lesson 2 Modify Wi-Fi

1.Modify Raspberry Pi Wi-Fi

The computer is supposed to connect to the Wi-Fi hotspot started with “HW” which is launched by Raspberry Pi. When there are multiple robots around, the wrong connection may occur. If you want to modify the default Wi-Fi name and password, please check the following steps.

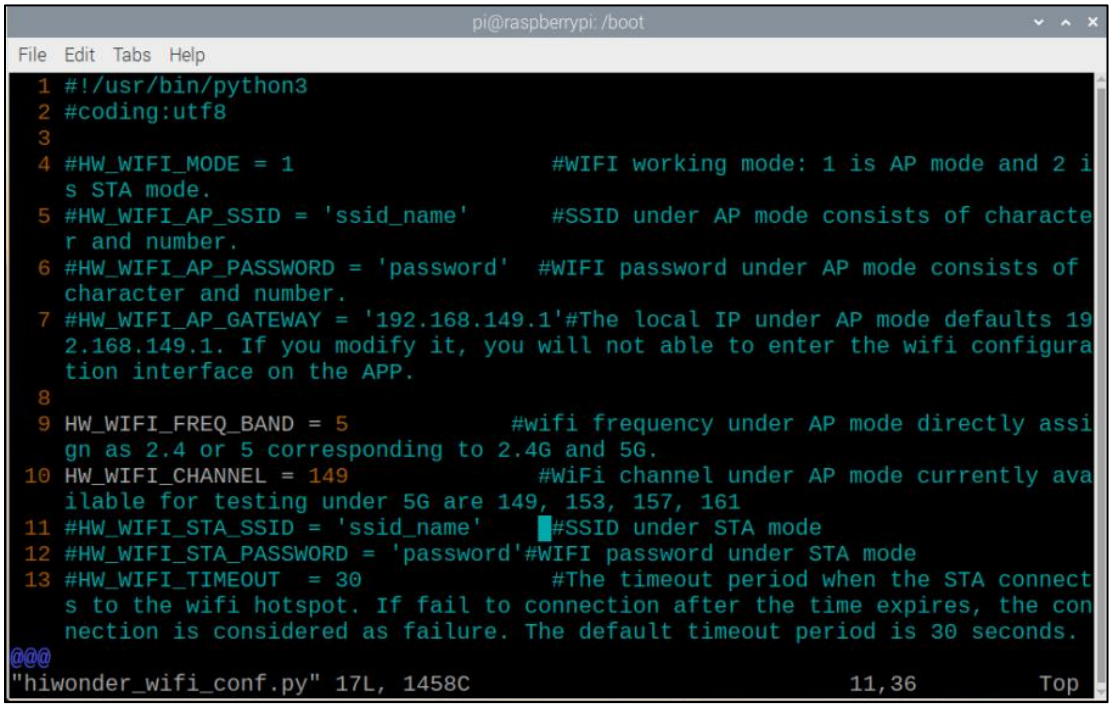
1) Turn on Raspberry Pi, start VNC and then connect to the Raspberry Pi remote desktop.

2) Click  to open LX terminal.

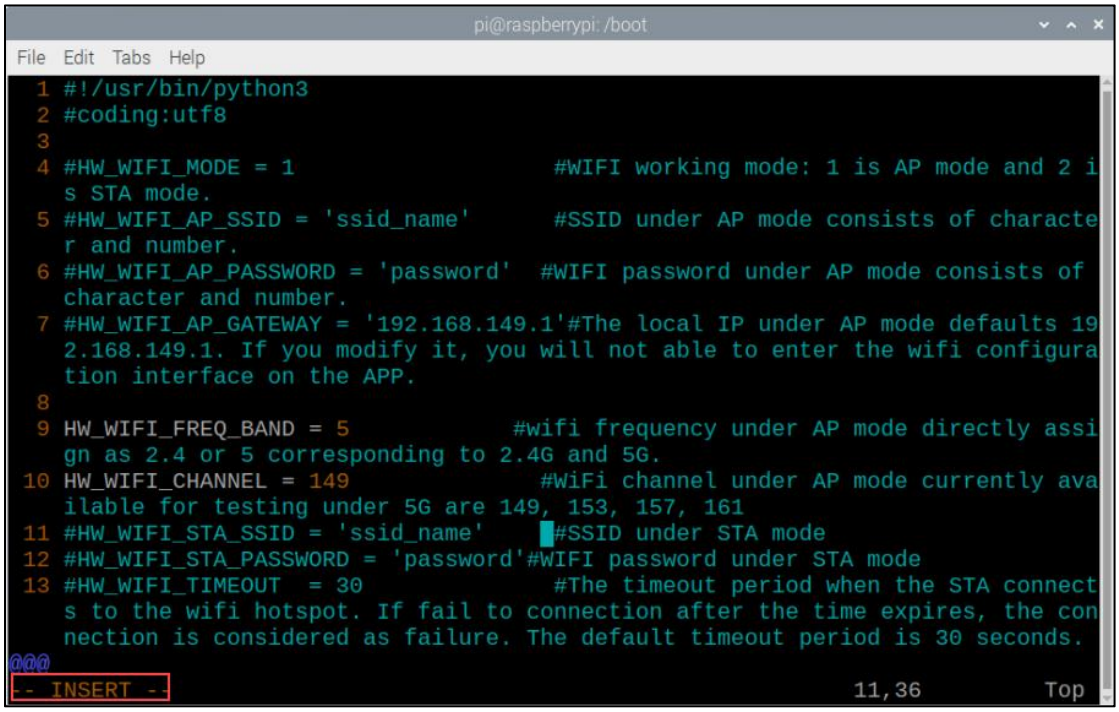


3) Enter “cd /boot” command, and then enter “sudo vim hiwonder_wifi_conf.py” command to open Wi-Fi configuration file.

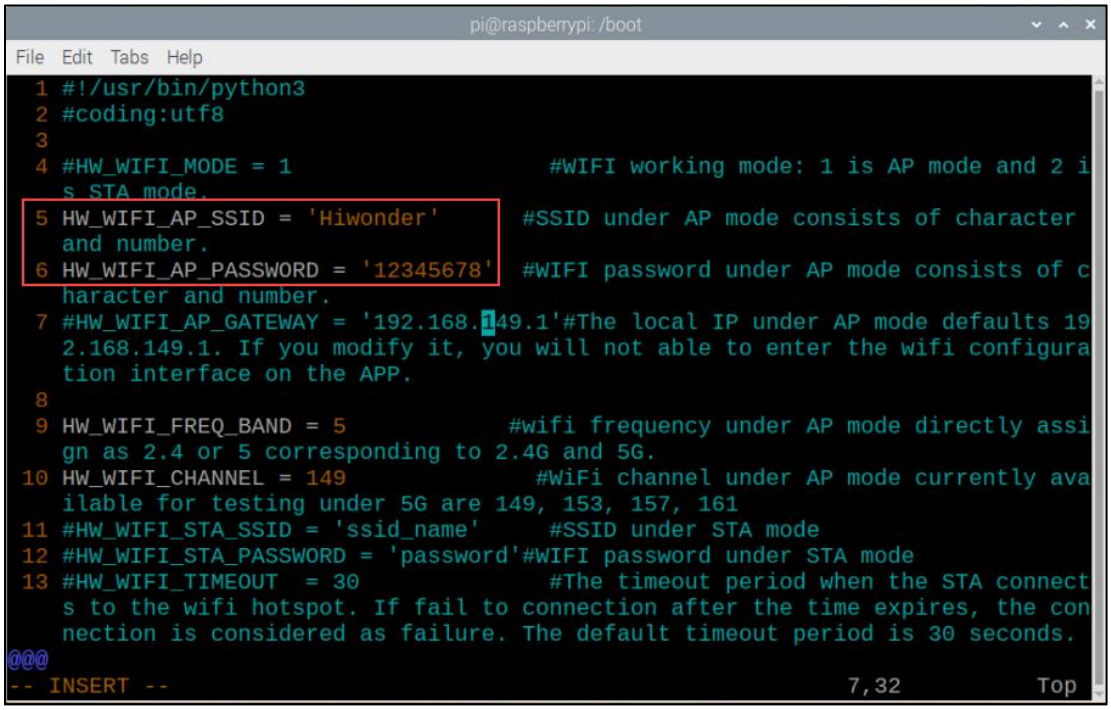
4) The interface is as follow:



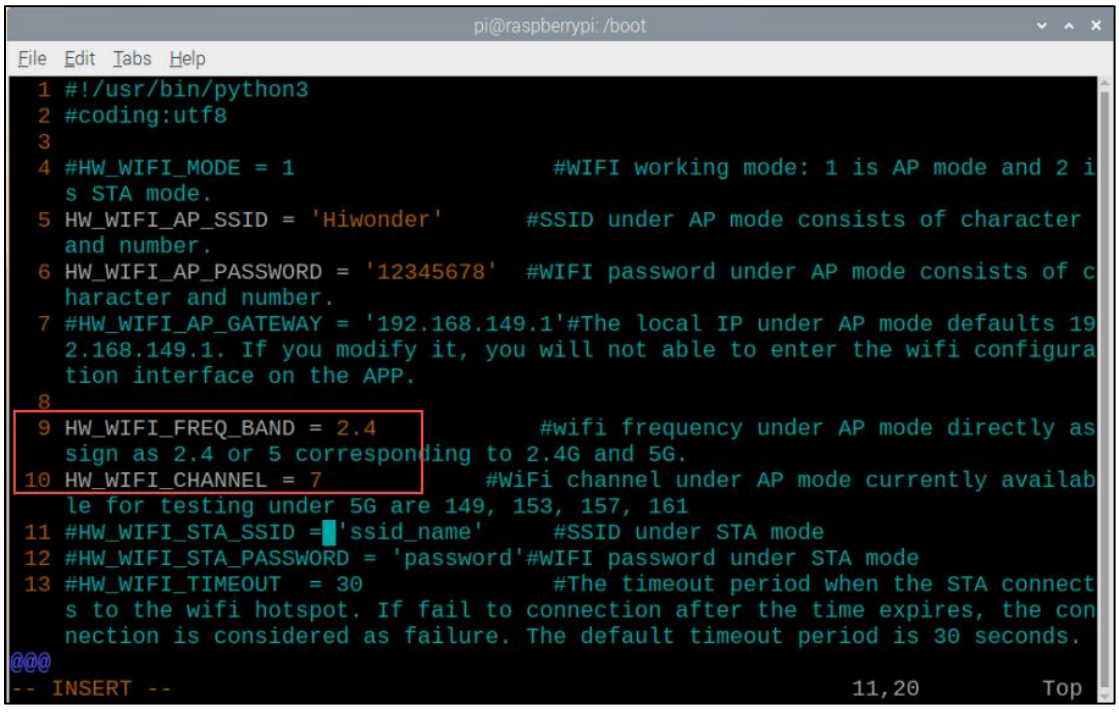
5) Press the "i" on the keyboard and then the "--Insert--" mark will be displayed on the interface. Please refer to the corresponding notes to modify.



6) If want to modify the Raspberry Pi name as “Hiwonder” and password as “12345678”, you only need to revise the info as shown in the below figure. Do not forget to delete “#” to make it effective.

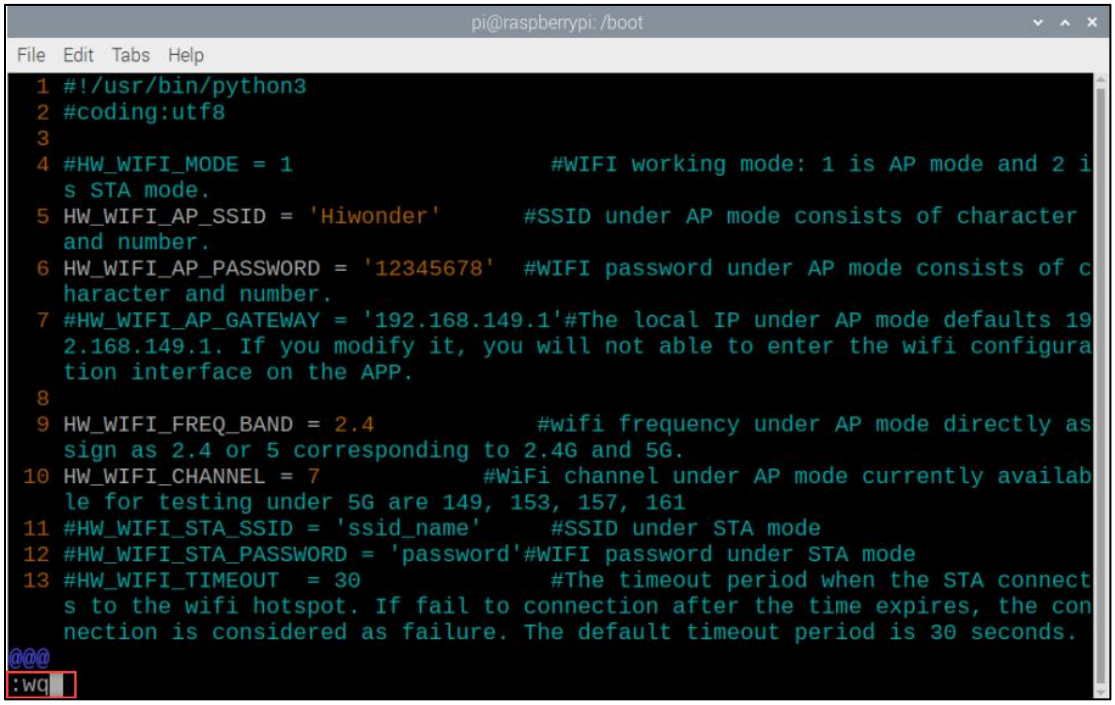


7) If the network card does not support the 5G frequency band, please modify the frequency band to 2.4G. Change the default value of HW_WIFI_FREQ_BAND to 2.4, add "#" before "HW_WIFI_CHANNEL = 149". Please note that the 2.4G transmission rate is lower than the 5G rate.

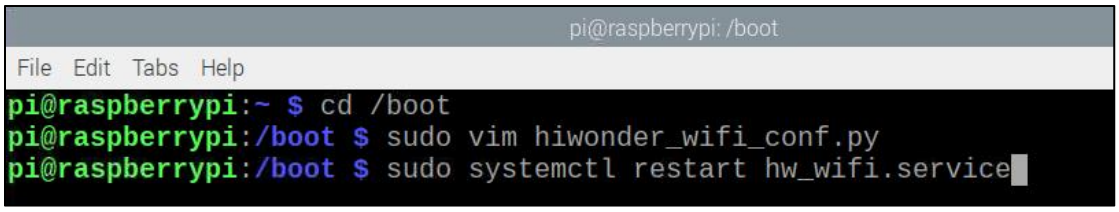


8) After the modification is complete, press “ESC” and enter “:wq”. Then save

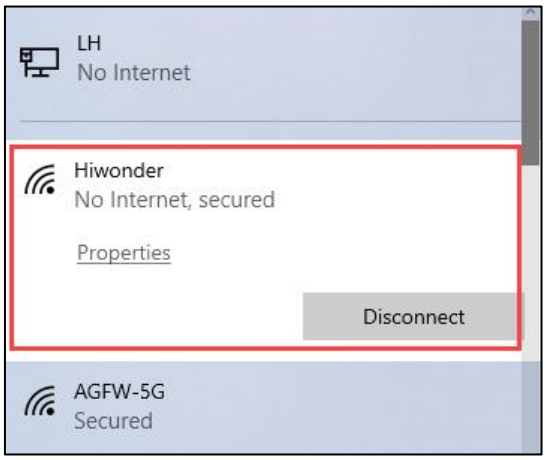
and exit the file.



9) Enter "**sudo systemctl restart hw-wifi.service**" , press "Enter " to restart the file. Then the VNC will disconnect automatically.



10) In the Wi-Fi setting area, you can find that the Wi-Fi name will be updated as "Hiwonder". Enter password "12345678" to connect.

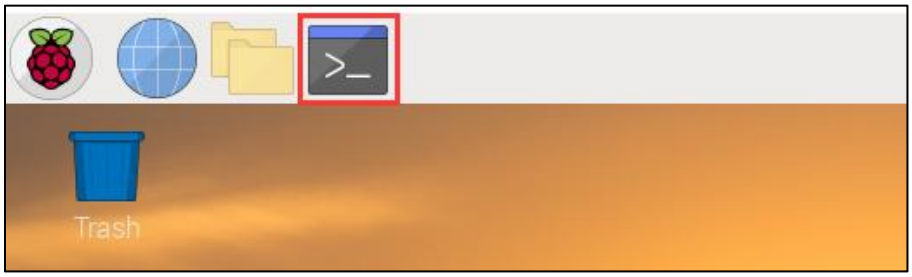


2. Set a Static IP for the Raspberry Pi

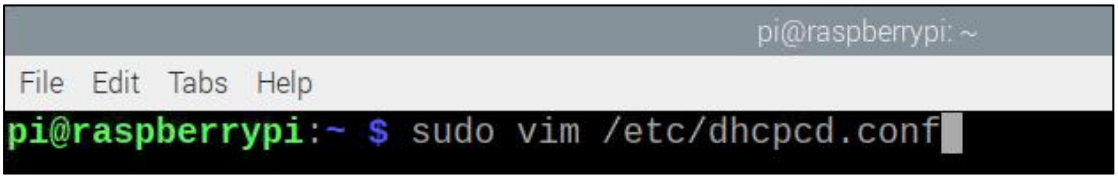
When using wired connection, it's more convenient for you to set a static IP. Here is the method for setting a static IP.

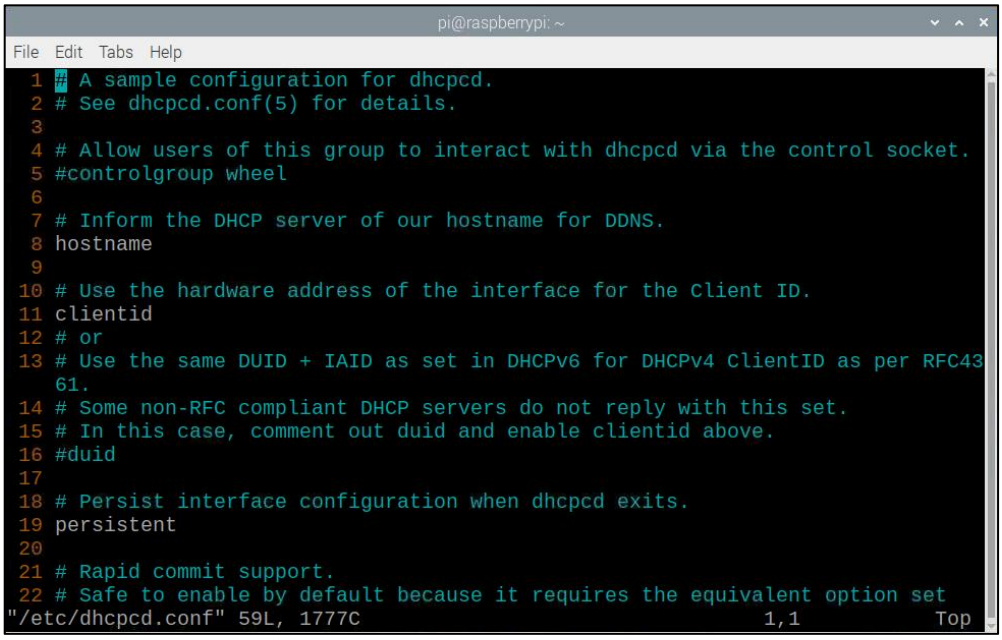
1) Turn on Raspberry Pi, start VNC and connect to Raspberry Pi remote desktop.

2) Click "  " to open LX terminal.



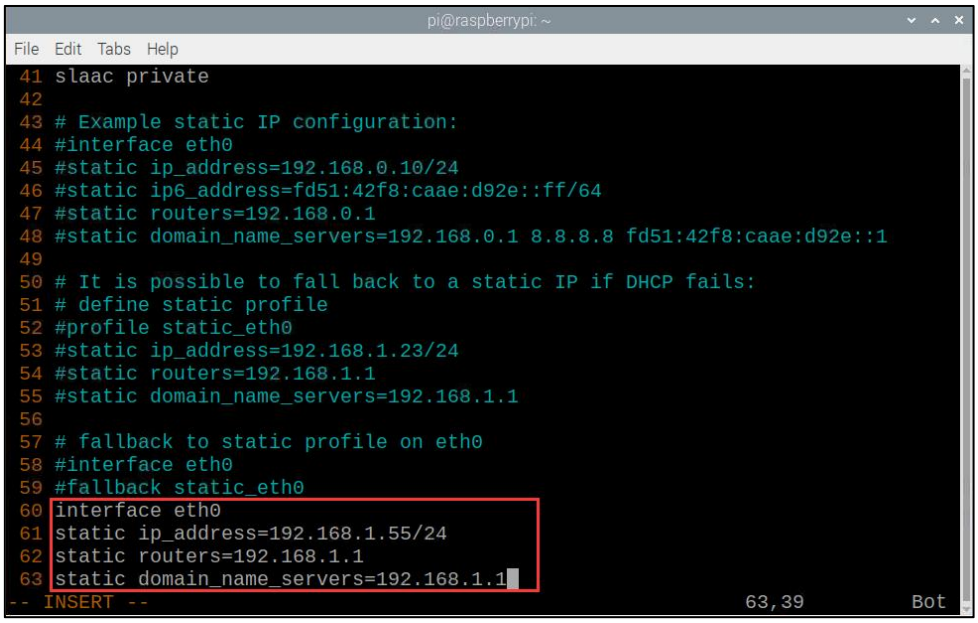
3) Enter "sudo vim /etc/dhcpcd.conf" to open dhcpcd.conf configuration file.



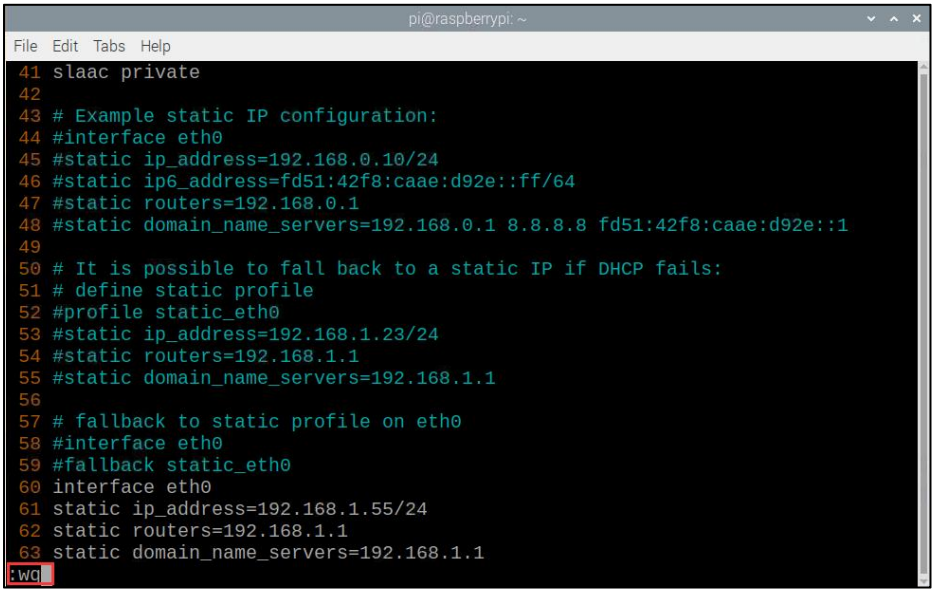


4) Press the “i” key at the end of the file to enter the insert mode, and enter the following:

```
interface eth0 #Wired network card 0
static ip_address=192.168.1.55/24 #have a static IP address for the wired network card/24
static routers=192.168.1.1 #gateway address
static domain_name_servers=192.168.1.1 #DNS address
```



5) Then we press "Esc", enter ":wq" at the bottom left (note that the colon before wq), press enter to save and exit.



6) Enter “sudo reboot” command to restart Raspberry Pi and connect with the new static IP.