Setting the Static IP Address

Even though Static IP is covered in the Video 2.2 of this course, it is mentioned at the end of the video, after setting up the VNC Remote Communication. Thus, either students may miss it, consider it less important or will not implement this.

When you reach timestamp 4:10 of Video 2.2, please implement Static IP Address before moving on with the video.

Why set the Static IP Address?

When implementing VNC Remote Communication, the IP Address of your Raspberry Pi 4 is assigned by the Router to which it is connected to. Most probably the router in your home assigns the IP Address Dynamically, meaning that the IP Address can change on every new session. This will create confusion among the students, who doesn't understand how dynamic IP works as they try to connect to the same IP Address each and every time, but the dynamic nature of the Router would have set the Pi to a totally different IP Address.

Step 1: Open Terminal and type

sudo nano /etc/dhcpcd.conf

Step 2: At end of the file add the following lines for WiFi Connection

interface wlan0

static ip_address=192.168.1.176/24

static routers=192.168.1.1

static domain_name_servers=192.168.1.1

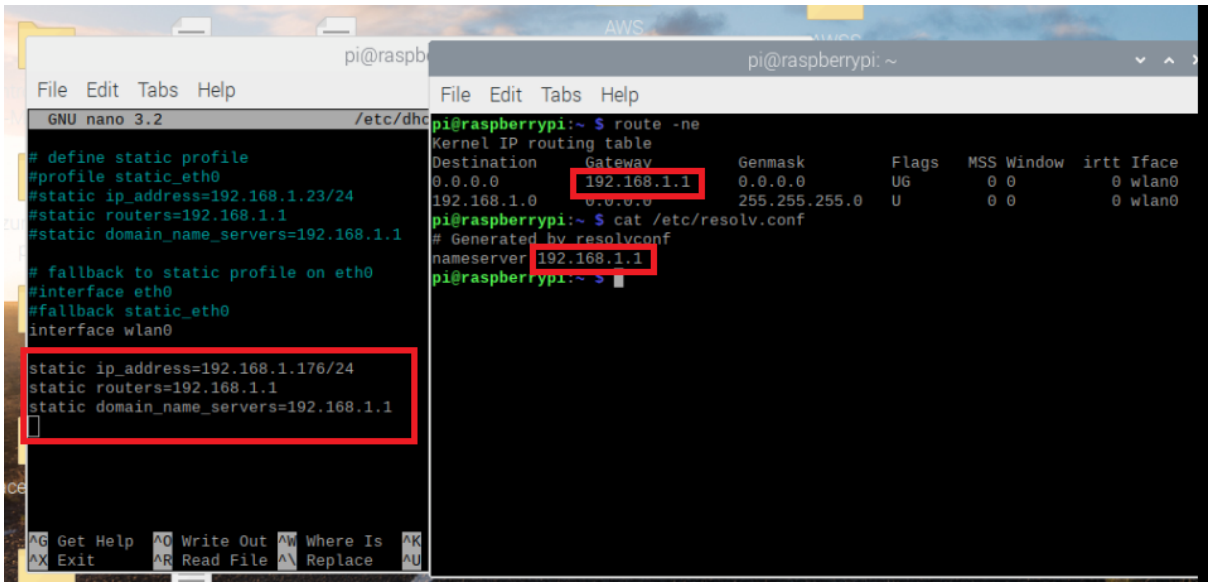
For Ethernet you need to replace "wlan0" with "eth0"

Step 3: Open another Terminal and type

route -ne

Note down the Gateway IP

Step 4: Type cat /etc/resolv.conf and note down the Domain Name Server.



Step 5: In the dhcpcd.conf file set the static IP you want to set keeping the “/24” as such. Also add the Router gateway and DNS IP on the last to lines and save it.

Step 6: Reboot the Pi, & the Static IP will be set.