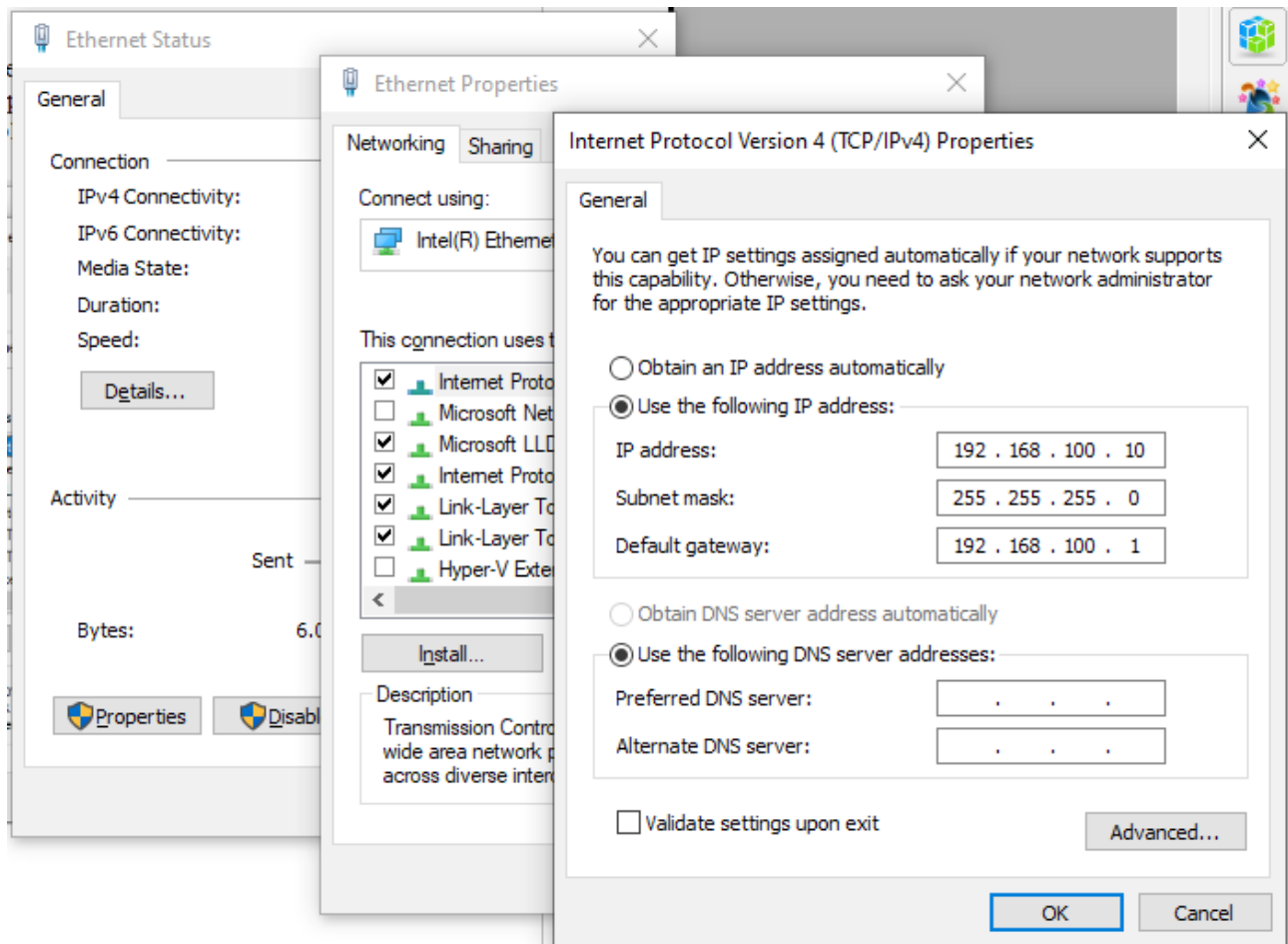


Connect Raspberry Pi 5 (RPI) to new WIFI network

Temporary configuration of Windows laptop

Your laptop needs to be configured with a manual IP address to be able to connect to the RPI.

1. Open "Control Panel" > "Network and Internet" > "Network Connections"
2. Double-click on "Ethernet". This should open a pop-up window called "Ethernet Status".
3. Click on "Properties", search for and double-click on "Internet Protocol Version 4 (TCP/IPv4)". In the pop-up window that opens, fill in the following information:



4. Click Ok. NB: The laptop will now be disconnected from the internet until we finish.

Establish SSH connection to RPI

The RPI is configured with

- eth0 (LAN): IP 192.168.100.1
- user: admin
- password: jambo-bomet

1. Write down the name (SSID) of your WIFI.
2. Connect the laptop and the RPI with a LAN cable.
3. Press the Windows key and type "CMD" into the the search bar. This should open a terminal. Type in "ipconfig" and compare the information to the one shown in the screenshot. You should see something like the last 5 lines.

```
Command Prompt

C:\Users\jkl>ipconfig

Windows IP Configuration

Ethernet adapter vEthernet (Default Switch):

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::1450:abab:35c9:d999%35
    IPv4 Address. . . . . : 172.22.208.1
    Subnet Mask . . . . . : 255.255.240.0
    Default Gateway . . . . . : 

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::7789:1852:ed2a:94f6%16
    IPv4 Address. . . . . : 192.168.100.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.100.1
```

5. Now type “SSH admin@192.168.100.1” at the prompt. You should see something like this:

```
Command Prompt - ssh admin@192.168.100.1

C:\Users\jkl>ssh admin@192.168.100.1
admin@192.168.100.1's password:
```

6. Enter the password for user admin: “**jambo-bomet**” and hit Enter. You should then see something like this:

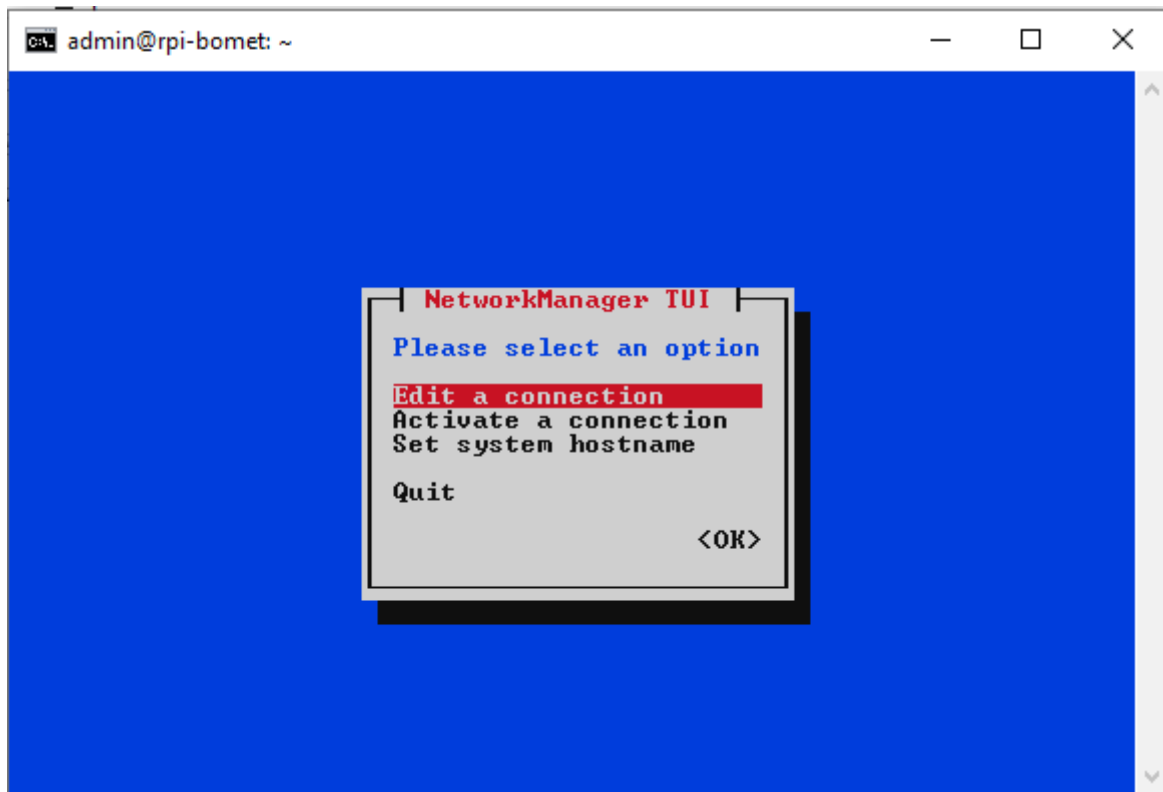
```
admin@rpi-bomet: ~

C:\Users\jkl>ssh admin@192.168.100.1
admin@192.168.100.1's password:
Linux rpi-bomet 6.12.20+rpt-rpi-2712 #1 SMP PREEMPT Debian 1:6.12.20-1+rpt1~bpo12+1 (2025-03-19) aarch64

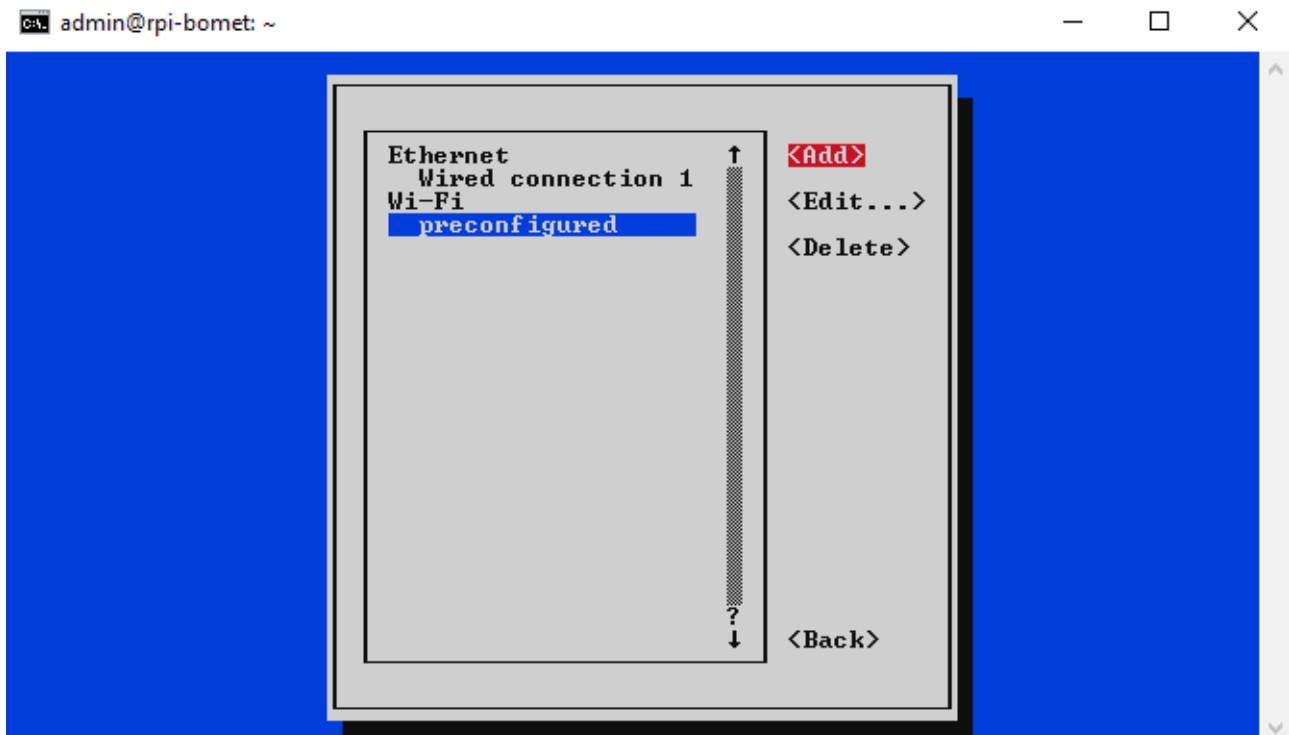
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat May 3 02:36:15 2025 from 192.168.100.10
admin@rpi-bomet:~$
```

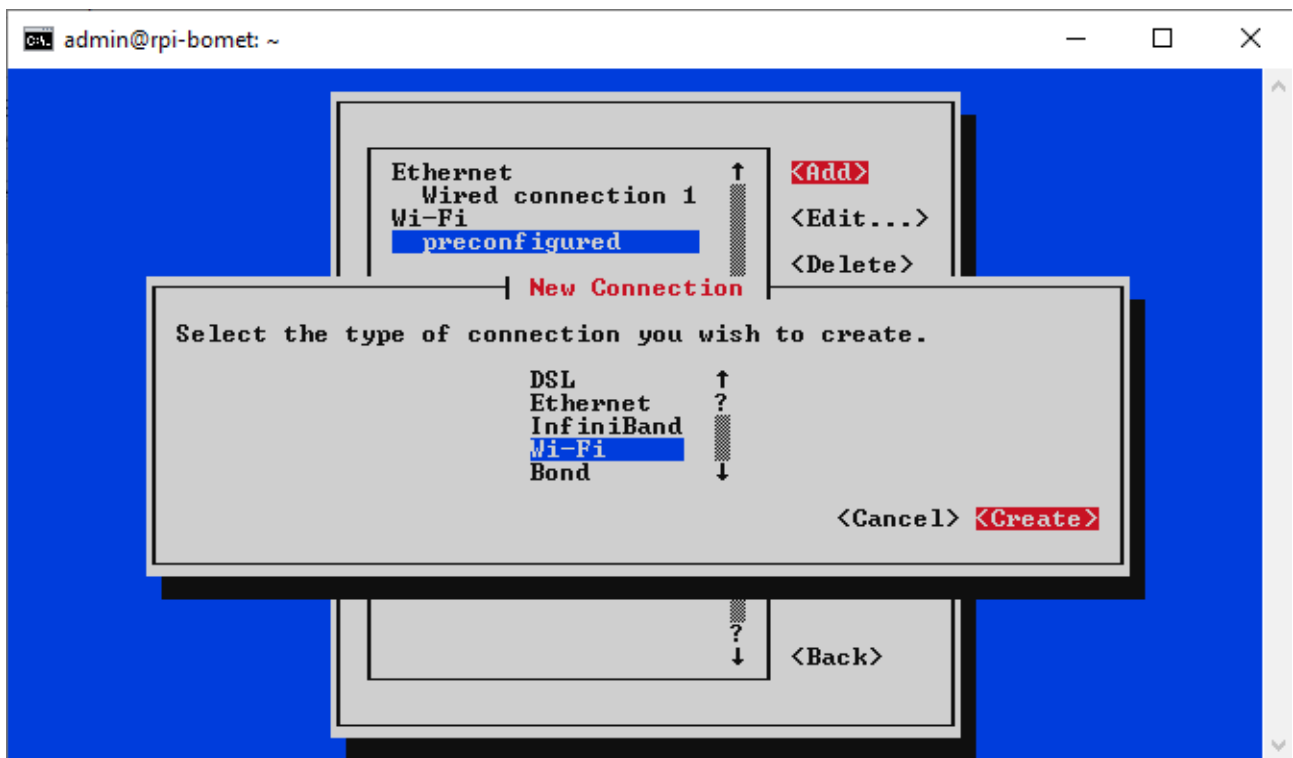
7. At the prompt, type “**sudo nmtui**”. This will open an interface like this:



8. Using the arrow keys on your keyboard, select the “ILRI ...” entry and move over to “Delete”, then hit “Enter”. Another pop-up will open up. Move to “Delete” and hit “Enter”. The ILRI wi-fi should now be gone.
9. Select “preconfigured” and move over to “Add”. Hit Enter.



10. Select “Wi-Fi” and move to “Create”, then hit “Enter”.



10. In the dialogue that opens up, move to “Profile name” and enter something meaningful, e.g. **“Bomet University College”**. Then move to SSID and type the **name of your wif**i (cf. Point 1 above). Then move to Security “None”, hit “Enter”, and select the right Security, probably “WPA & WPA2 Personal”. Then enter the Password for your Wi-Fi. You may want to activate “(X) Show the password” (toggle with spacebar)

Make sure the options

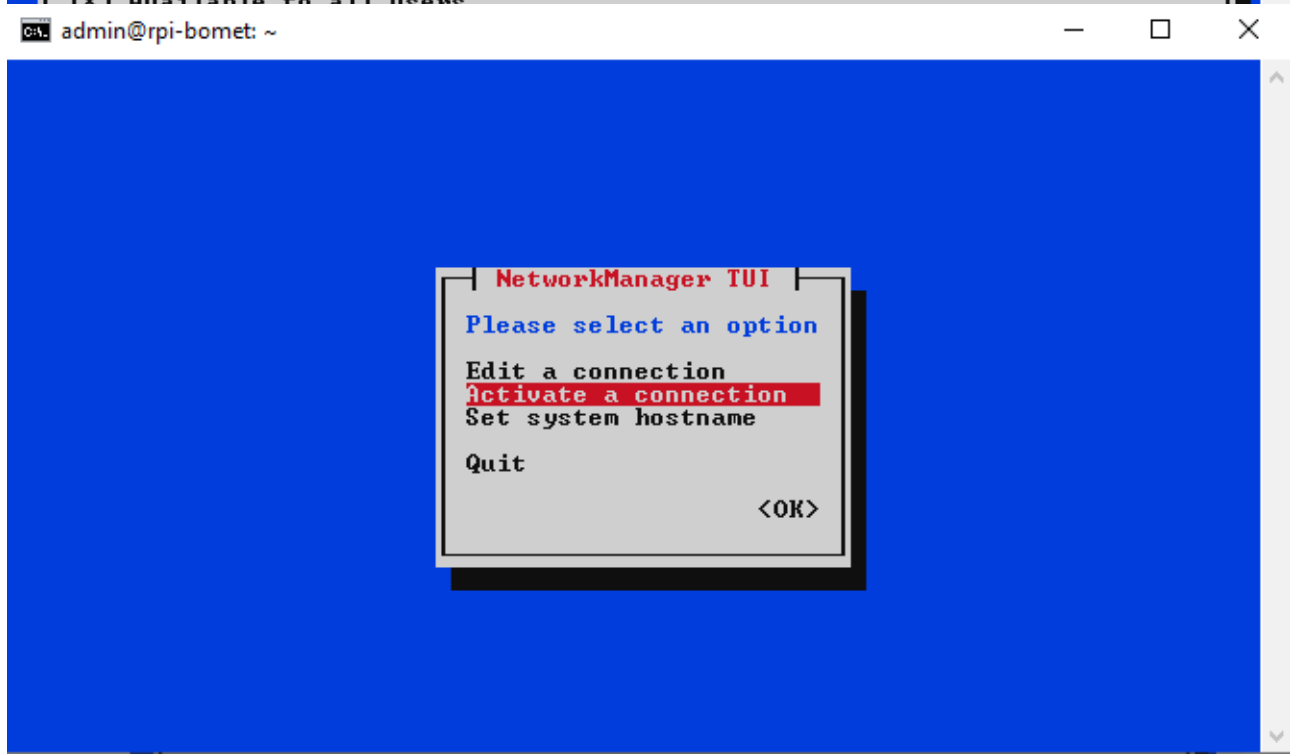
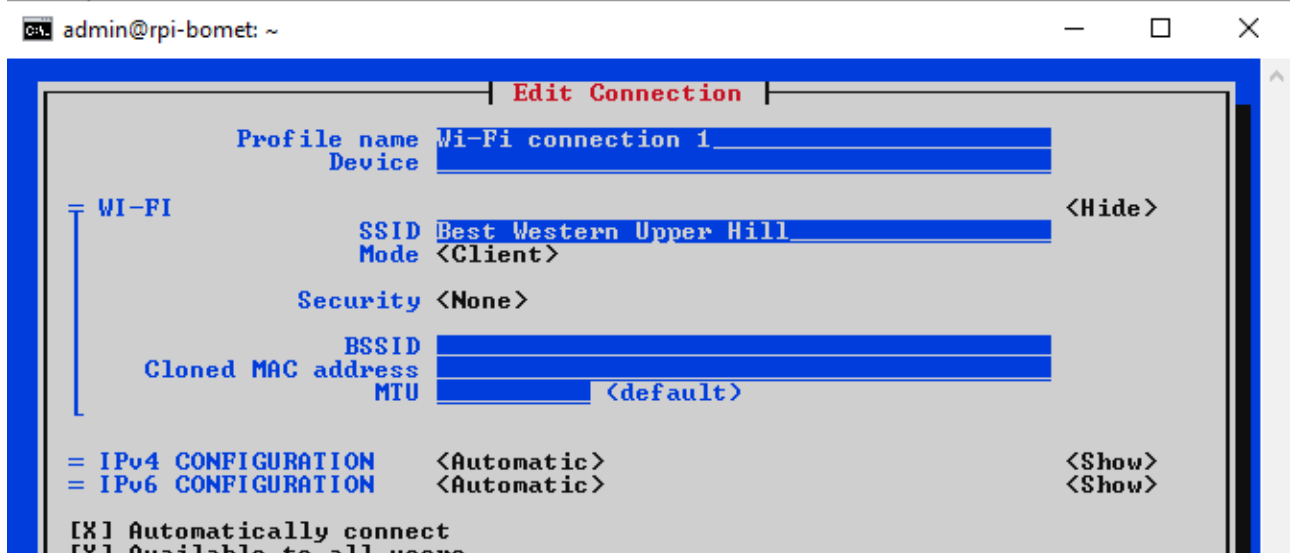
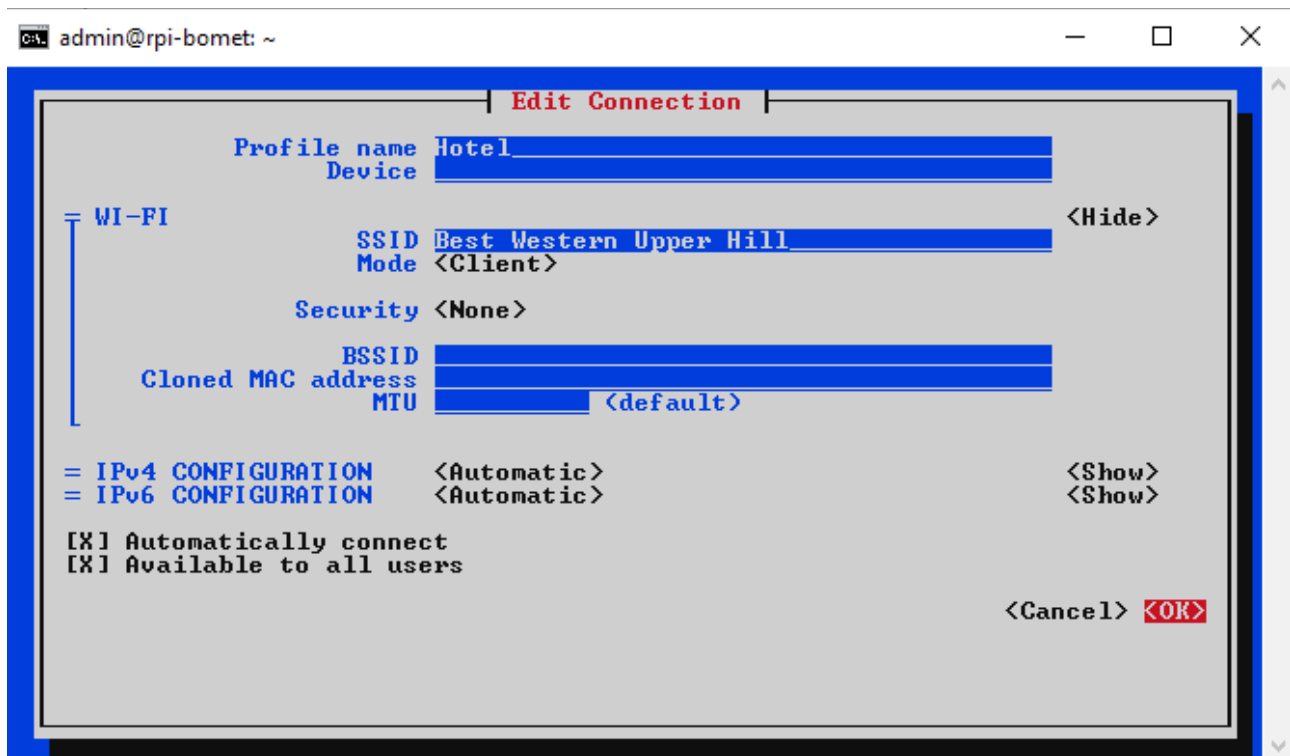
(X) Automatically connect

(X) Available to all users

are selected (toggle with the spacebar).

Then move down to the bottom of the dialogue to “Ok” and hit “Enter”.

*NB: In my case here in the hotel, I used “Profile name” **“Hotel”**, and I don't need a password, so I select Security “None”.*



11. Then move to “Back” and hit “Enter”. Then move to “Activate a connection” and hit “Enter”
12. Move to the connection you have created (in my case “Hotel”. If you see “Deactivate” on the right side, then everything is fine. If you see “activate” on the right side, then move there and hit “Enter”. Finally, go “Back” and “Quit”.
13. Back to the green prompt, type “**ifconfig**” and hit “Enter. Look for wlan0 and write down the information for inet (in my case 172.16.1.178).

```
admin@rpi-bomet: ~  
admin@rpi-bomet:~$ ifconfig  
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
    inet 192.168.100.1 netmask 255.255.255.0 broadcast 192.168.100.255  
    inet6 fe80::d015:9d68:bec6:3444 prefixlen 64 scopeid 0x20<link>  
    ether 2c:cf:67:8b:6d:73 txqueuelen 1000 (Ethernet)  
    RX packets 1140 bytes 84695 (82.7 KiB)  
    RX errors 0 dropped 81 overruns 0 frame 0  
    TX packets 698 bytes 164849 (160.9 KiB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
    device interrupt 106  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
    inet 127.0.0.1 netmask 255.0.0.0  
    inet6 ::1 prefixlen 128 scopeid 0x10<host>  
    loop txqueuelen 1000 (Local Loopback)  
    RX packets 59 bytes 5224 (5.1 KiB)  
    RX errors 0 dropped 0 overruns 0 frame 0  
    TX packets 59 bytes 5224 (5.1 KiB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
    inet 172.16.1.178 netmask 255.255.255.0 broadcast 172.16.1.255  
    inet6 fe80::f518:e5c4:5206:d224 prefixlen 64 scopeid 0x20<link>  
    ether 2c:cf:67:8b:6d:74 txqueuelen 1000 (Ethernet)  
    RX packets 2593 bytes 387411 (378.3 KiB)  
    RX errors 0 dropped 390 overruns 0 frame 0  
    TX packets 132 bytes 15365 (15.0 KiB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
admin@rpi-bomet:~$
```

14. Type “**exit**”. This takes you back to the Windows CLI, Type “**ping** <the inet address from above>”. You should see something like this:

```
Command Prompt  
admin@rpi-bomet:~$ exit  
logout  
Connection to 192.168.100.1 closed.  
  
C:\Users\jkl>ping 172.16.1.178  
  
Pinging 172.16.1.178 with 32 bytes of data:  
Reply from 172.16.1.178: bytes=32 time<1ms TTL=64  
Reply from 172.16.1.178: bytes=32 time<1ms TTL=64  
Reply from 172.16.1.178: bytes=32 time<1ms TTL=64  
Reply from 172.16.1.178: bytes=32 time<1ms TTL=64  
  
Ping statistics for 172.16.1.178:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 0ms, Average = 0ms  
  
C:\Users\jkl>
```

If you see this, your RPI is connected to your Wi-Fi. **SUCCESS!!**

15. Unplug the LAN cable from the RPI and your laptop.

16. Open “Control Panel” again and find the networking dialogue (cf. Above). Then select “Obtain an IP address automatically”. Your laptop will be back to normal.

Internet Protocol Version 4 (TCP/IPv4) Properties

General Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☒ Obtain an IP address automatically

☐ Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

OK Cancel