



Prelab 0.1 Introduction

0.1 Notation and rule

In the lab manuals, variables, menu, filename, command, code, and so on are written in a tilted font within single quotation marks (like '*example*') to distinguish other text in the manual. Command for figuring out the IP address of Windows computer, for example, instruction will be 1) Open '*Command Prompt*', 2) Type '*ipconfig*'. Or it is instructed as followed so that you can copy and paste the command when it is too long and complicated. Tips or comments will be given after a bullet point or pound mark (#). If you are taking online class, you should follow green-colored-text ([Online class](#)).

Windows - Command Prompt

```
ipconfig
```

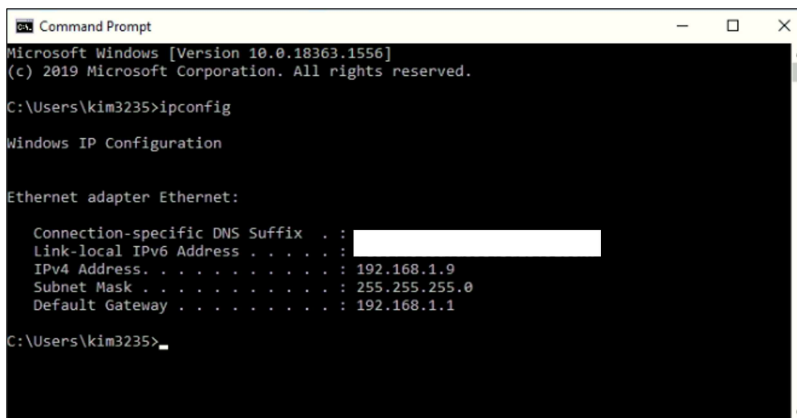


Figure 1 Check IP address using Windows Command Prompt

In case of Raspberry Pi, your IP address can be checked by 1) Open '*Terminal*', 2) Type '*ifconfig*'.

Raspberry Pi - Linux - Terminal

```
ifconfig
```

```

pi@raspberrypi: ~
File Edit Tabs Help

RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

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 63652110 bytes 214798389192 (200.0 GiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 63652110 bytes 214798389192 (200.0 GiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 192.168.1.35 netmask 255.255.255.0 broadcast 192.168.1.255
inet6 fe80::7ba8:410d:f2f:fca7 prefixlen 64 scopeid 0x20<link>
ether e4:5f:01:43:70:2d txqueuelen 1000 (Ethernet)
RX packets 753892 bytes 37319844 (35.5 MiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 2387713 bytes 3058941136 (2.8 GiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

pi@raspberrypi:~ $

```

Figure 2 Check IP address of Raspberry Pi Terminal

In the prelab and lab manuals, there will be 'Task' directions. You should include **task** outcomes or answers to the question according to the directions in your prelab and lab report.

- Below are examples of various **tasks**, you do not need to complete these.

Examples:

Task 0.1

In []: `##@title 1) Capture your Terminal window and attach it to the report below: {display`

```

Command Prompt
Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::3b40:e6d:4109:5446%12
    IPv4 Address. . . . . : 192.168.50.118
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.50.1

Wireless LAN adapter Wi-Fi:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Wireless LAN adapter Local Area Connection* 10:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

```

In [1]: `##@title 2) What is your IP address? {display-mode: "form"}
T1 = '192.168.50.118' #@param {type:"string"}`

```
print(T1)
```

192.168.50.118

Please continue to [Prelab 0.2 here](#).