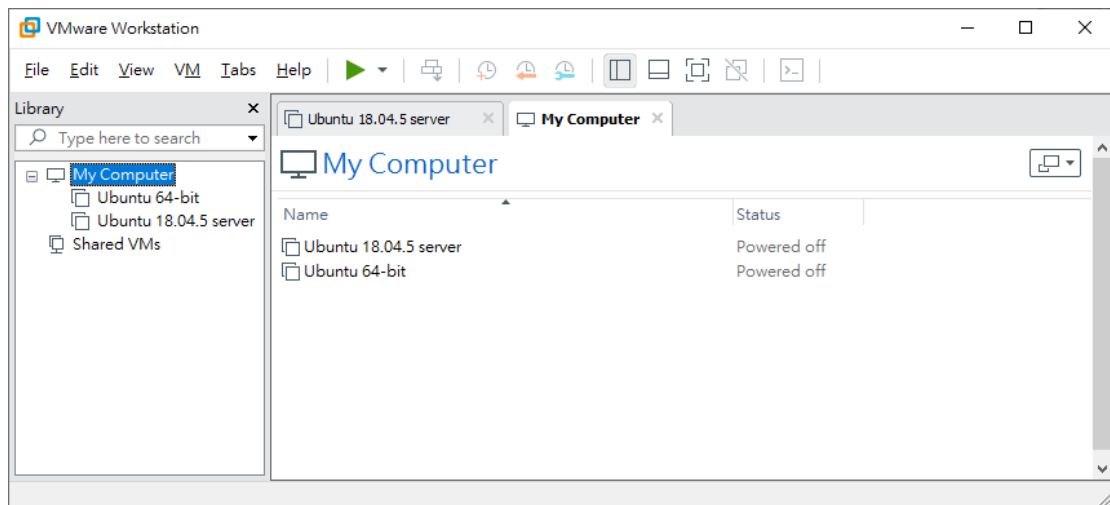
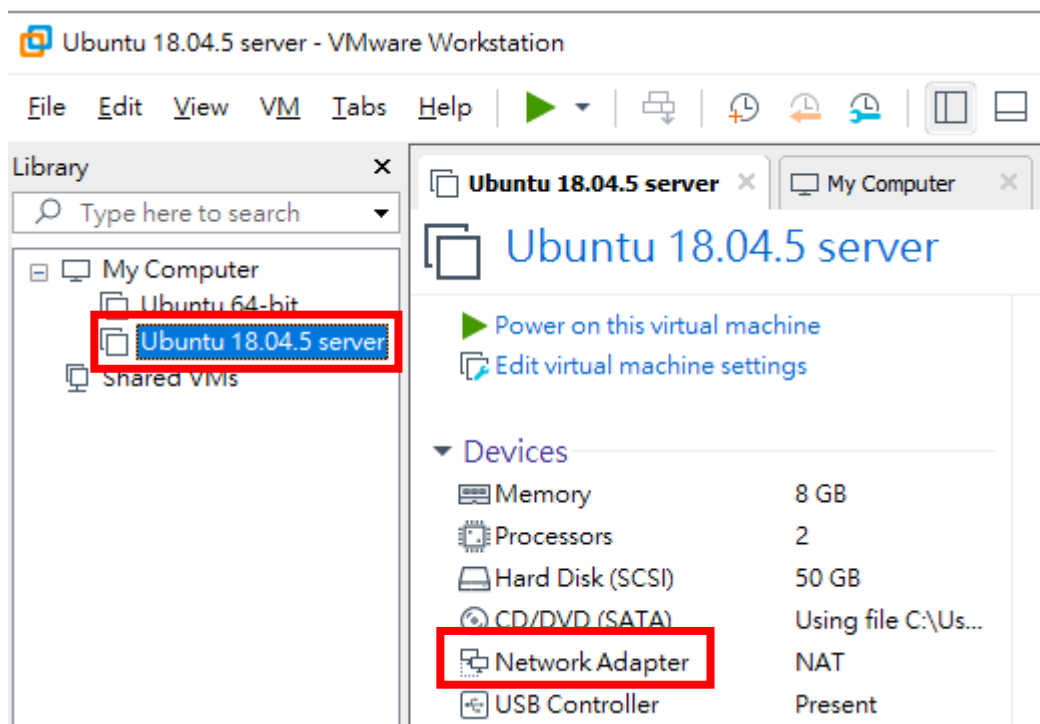


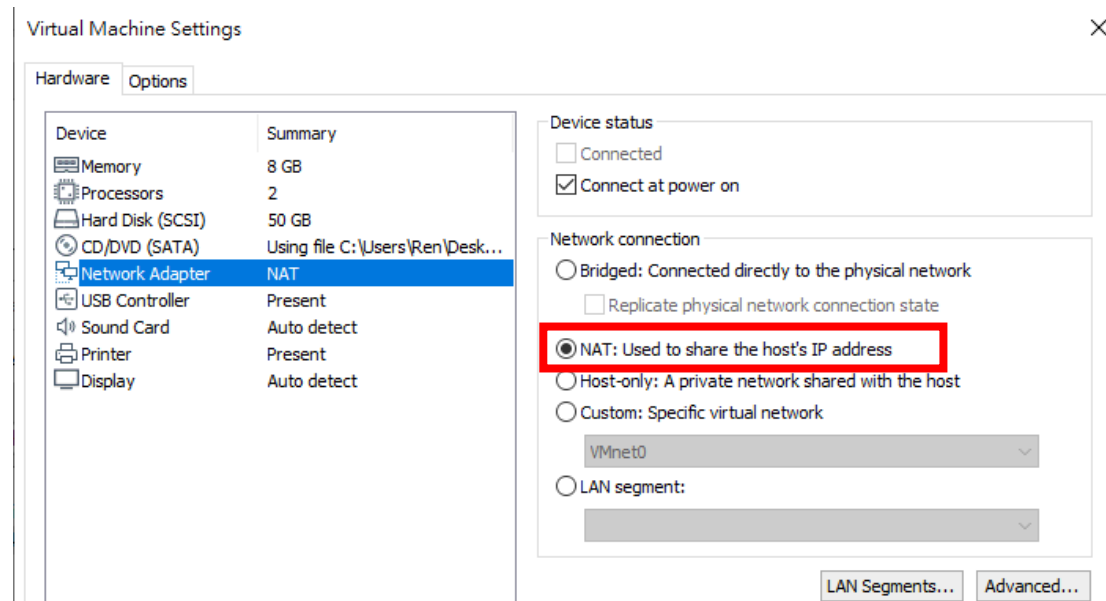
開啟 VMware



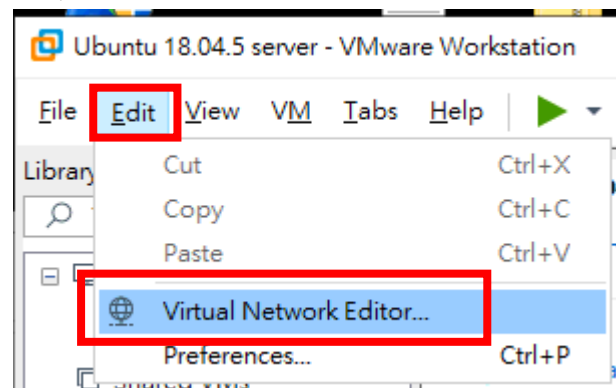
然後點選要使用的作業系統，再點選 Network Adapter




然後設定成 NAT 模式



再來點上方的 Edit>Virtual Network Editor...



因為下面的設定都鎖住了，所以得點下面的 **Change Settings** 才能修改，如果能直接改就不用點 **Change Settings** 了

 Virtual Network Editor ✕

| Name | Type | External Connection | Host Connection | DHCP | Subnet Address |
|--------|-----------|---------------------|-----------------|---------|----------------|
| VMnet1 | Host-only | - | Connected | Enabled | 192.168.232.0 |
| VMnet8 | NAT | NAT | Connected | Enabled | 192.168.79.0 |

Add Network... Remove Network Rename Network...

VMnet Information

☐ Bridged (connect VMs directly to the external network)
Bridged to: Automatic Settings...



☐ NAT (shared host's IP address with VMs) NAT Settings...

☒ Host-only (connect VMs internally in a private network)

☒ Connect a host virtual adapter to this network
Host virtual adapter name: VMware Network Adapter VMnet1

☒ Use local DHCP service to distribute IP address to VMs DHCP Settings...

Subnet IP: 192 . 168 . 232 . 0 Subnet mask: 255 . 255 . 255 . 0

 Administrator privileges are required to modify the network configuration.  **Change Settings**

Restore Defaults Import... Export... OK Cancel Apply Help

之後點 VMnet8，再點 NAT Settings

Virtual Network Editor ✕

| Name | Type | External Connection | Host Connection | DHCP | Subnet Address |
|--------|-----------|---------------------|-----------------|---------|----------------|
| VMnet0 | Bridged | Auto-bridging | - | - | - |
| VMnet1 | Host-only | - | Connected | Enabled | 192.168.232.0 |
| VMnet8 | NAT | NAT | Connected | Enabled | 192.168.79.0 |

Add Network... Remove Network Rename Network...

VMnet Information

☐ Bridged (connect VMs directly to the external network)

Bridged to: Automatic Automatic Settings...

☒ NAT (shared host's IP address with VMs) NAT Settings...

☐ Host-only (connect VMs internally in a private network)

☒ Connect a host virtual adapter to this network
Host virtual adapter name: VMware Network Adapter VMnet8

☒ Use local DHCP service to distribute IP address to VMs DHCP Settings...

Subnet IP: 192 . 168 . 79 . 0 Subnet mask: 255 . 255 . 255 . 0

Restore Defaults Import... Export... OK Cancel Apply Help

記一下 Gateway IP，等等設定會用到

NAT Settings

×

Network: vmnet8

Subnet IP: 192.168.79.0

Subnet mask: 255.255.255.0

Gateway IP: 192.168.79.2

Port Forwarding

| Host Port | Type | Virtual Machine IP Address | Description |
|-----------|------|----------------------------|-------------|
|-----------|------|----------------------------|-------------|

Add...

Remove

Properties

Advanced

☒ Allow active FTP

☒ Allow any Organizationally Unique Identifier

UDP timeout (in seconds): 30

Config port: 0

☐ Enable IPv6

IPv6 prefix: fd15:4ba5:5a2b:1008::/64

DNS Settings...

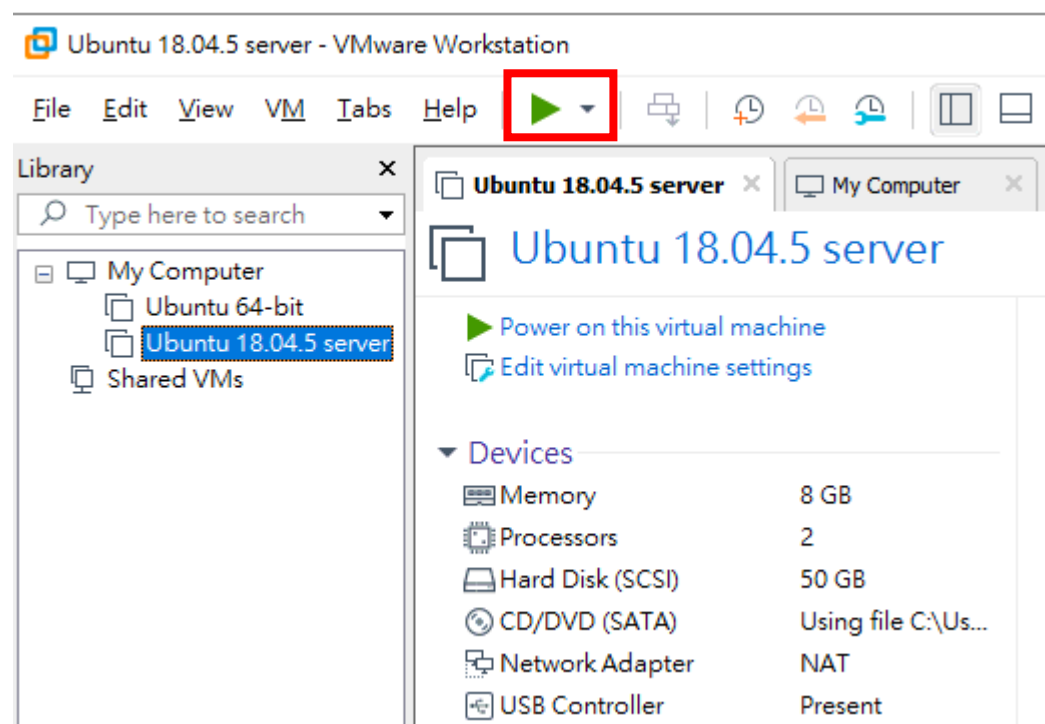
NetBIOS Settings...

OK

Cancel

Help

然後關閉所有視窗，點選綠色三角形開啟虛擬機並登入



登入系統後先用下面指令找出網路卡的名稱，最左邊那排是網卡名稱，像這台的叫做 `ens33`，不同電腦期網卡數量也不同，所以如果你的電腦有很多網卡名稱是正常的

`sudo ifconfig`

PS. 不用 `sudo ifconfig -a` 是為了避免把關掉的網路卡也列出來

```
ren@server:/etc/netplan$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet6 fe80::20c:29ff:fe5c:a87e prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:5c:a8:7e txqueuelen 1000 (Ethernet)
    RX packets 28  bytes 4220 (4.2 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 48  bytes 4904 (4.9 KB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
    device interrupt 19  base 0x2000

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 542  bytes 39322 (39.3 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 542  bytes 39322 (39.3 KB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

然後用下面指令確認 ubuntu 有沒有安裝 ssh，通常系統預設會安裝 openssh-client

`dpkg -l | grep ssh`

```
ren@server:~$ dpkg -l | grep ssh
ii  openssh-client      1:7.6p1-4ubuntu0.3      amd64
    secure shell (SSH) client for secure access to remote machines
ii  ssh                 1:7.6p1-4ubuntu0.3      all
    secure shell client and server (metapackage)
ii  ssh-import-id       5.7-0ubuntu1.1          all
    securely retrieve an SSH public key and install it locally
```

如果沒有的話就用下面指令安裝

`sudo apt-get install openssh-client`

如果是要讓其他電腦來連你的 ubuntu 就要用下面指令安裝 sever

`sudo apt-get install openssh-server`

再用 `dpkg -l | grep ssh`，就會有 openssh-server 了

```
ren@server:~$ dpkg -l | grep ssh
ii  openssh-client      1:7.6p1-4ubuntu0.3      amd64
    secure shell (SSH) client for secure access to remote machines
ii  openssh-server      1:7.6p1-4ubuntu0.3      amd64
    secure shell (SSH) server for secure access from remote machines
ii  openssh-sftp-server 1:7.6p1-4ubuntu0.3      amd64
    secure shell (SSH) sftp server module, for SFTP access from remote machines
ii  ssh                 1:7.6p1-4ubuntu0.3      all
    secure shell client and server (metapackage)
ii  ssh-import-id       5.7-0ubuntu1.1          all
    securely retrieve an SSH public key and install it locally
```

然後用下面指令找出設定檔名稱，每台電腦設定檔名稱可能不同，所以如果你的跟下面不同別嚇到

`ls -al /etc/netplan`

```
ren@server:/etc/netplan$ ls -al /etc/netplan/
total 12
drwxr-xr-x  2 root root 4096 Oct 19 14:16 .
drwxr-xr-x 100 root root 4096 Oct 16 09:45 ..
-rw-r--r--  1 root root 301 Oct 19 14:16 00-installer-config.yaml
```

一般設定檔路徑在 `etc/netplan` 裡面，可以用以下指令直接開啟設定檔編輯

`sudo vi /etc/netplan/00-installer-config.yaml`

或是先到根目錄，然後慢慢一層層進資料夾，確認裡面有設定檔在用指令編輯

`cd /`

`cd etc`

`cd netplan`

`ls`

若怕改壞可先用下面指令將設定檔備份一份，或是原設定檔內容每行前面加#註解

```
sudo 00-installer-config.yaml 1.yanl
```

```
#network:
#   ethernets:
#       ens33:
#           addresses: [192.168.79.101/24]
#           gateway4: 192.168.1.1
#           nameservers:
#               addresses: [8.8.8.8]
#   version: 2
```

然後用下面指令開啟設定檔

```
sudo vi 00-installer-config.yaml
```

開啟後按 i 才能對內容進行修改，如果前面有先備份，就直接改成下圖的樣子吧，addreddes 可以自訂，但 gateway 要跟前面虛擬機的設定相同

```
network:
  ethernets:
    ens33:
      addresses: [192.168.79.101/24]
      gateway4: 192.168.79.2
      nameservers:
        addresses: [8.8.8.8]
  version: 2
```

修改完按 esc 然後輸入:wq 並按 enter 就會存檔並退出

`sudo netplan try`

```
ren@server:/etc/netplan$ sudo netplan try
Warning: Stopping systemd-networkd.service, but it can still be activated by:
  systemd-networkd.socket
Do you want to keep these settings?

Press ENTER before the timeout to accept the new configuration

Changes will revert in 116 seconds
```

最後用以下指令 `ping` 一下外部網路，如果出現下面的畫面，就表示沒問題了，按 `ctrl+x` 就能停止

Ping 8.8.8.8

```
ren@server:/etc/netplan$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data:
64 bytes from 8.8.8.8: icmp_seq=1 ttl=128 time=17.1 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=14.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=128 time=14.9 ms
```