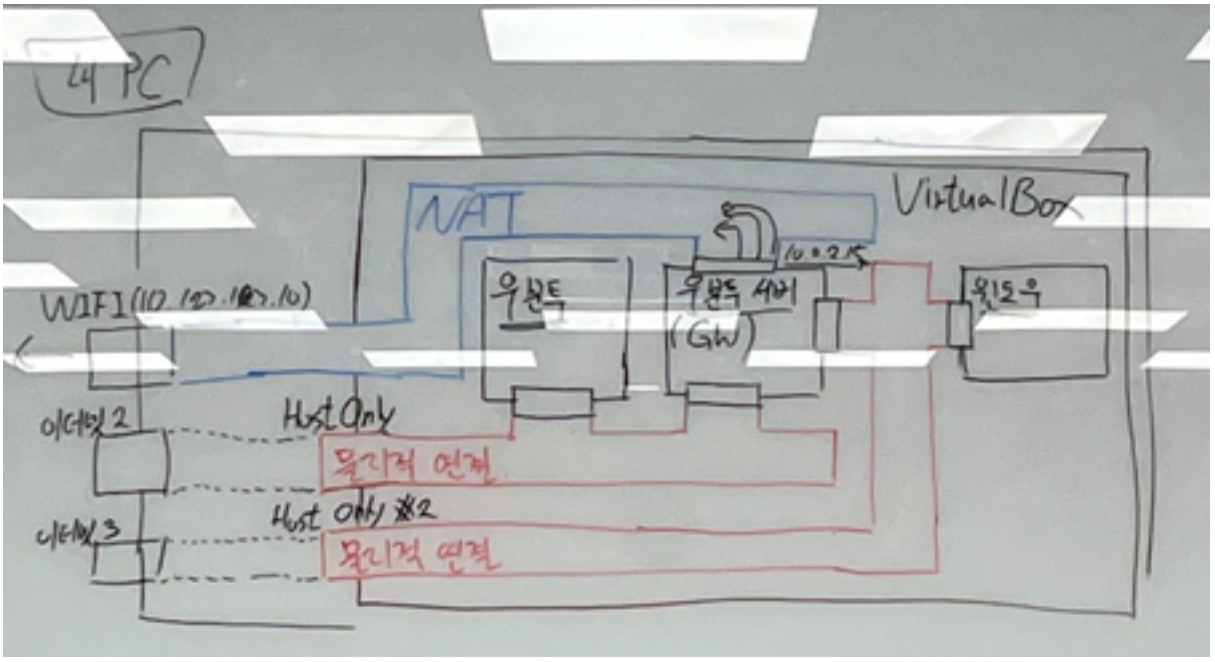
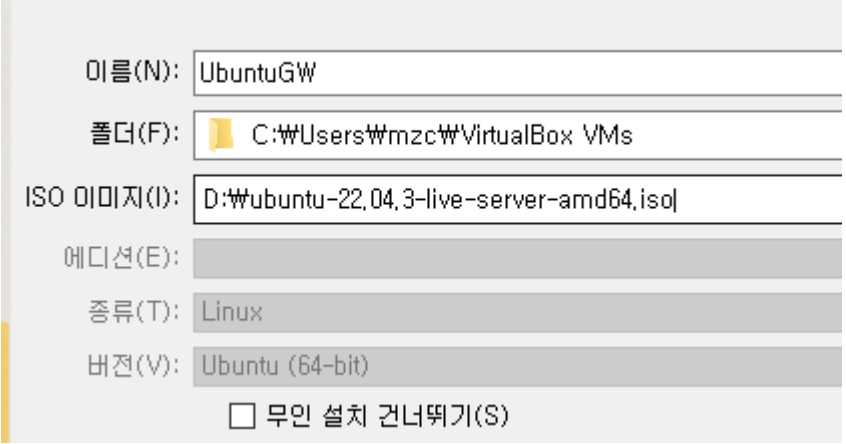
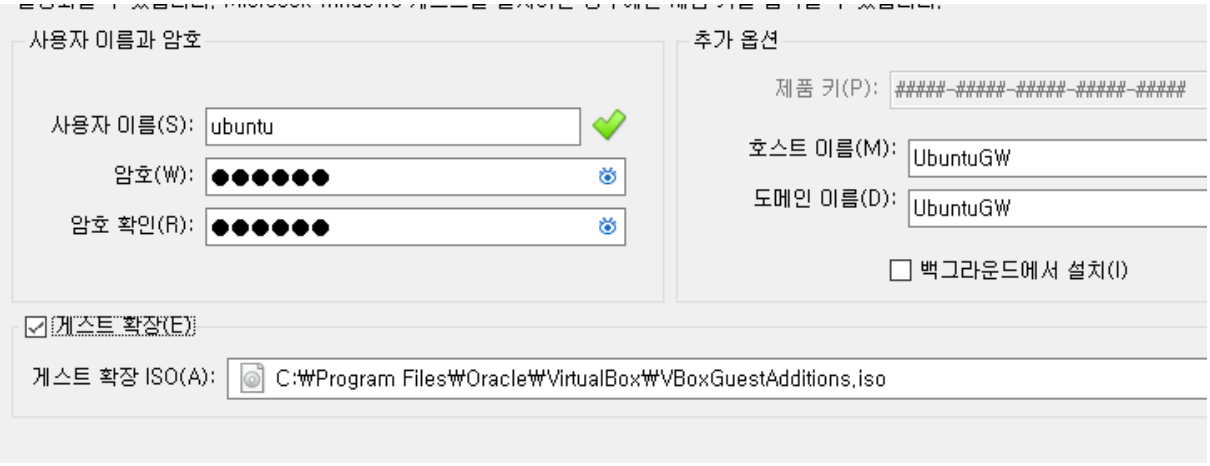
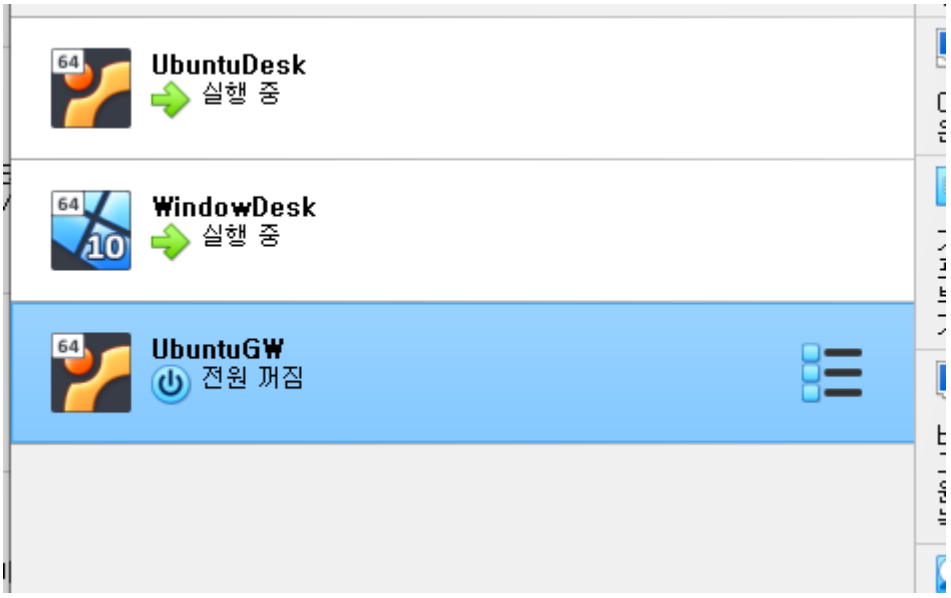
12/27 Ubuntu live Server

제목

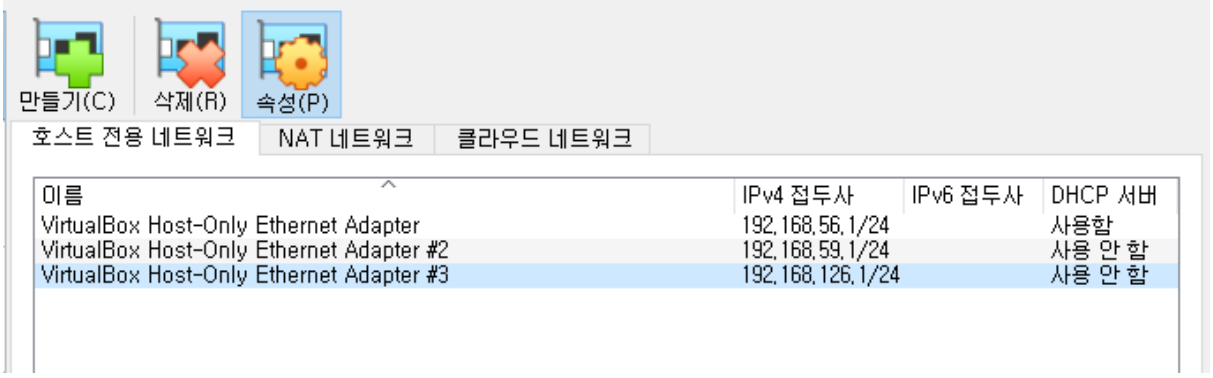





사용자 이름과 암호
사용자 이름(S): ubuntu
암호(W): ●●●●●●
암호 확인(R): ●●●●●●
추가 옵션
제품 키(P): #####-#####-#####-#####-#####
호스트 이름(M): UbuntuGW
도메인 이름(D): UbuntuGW
백그라운드에서 설치(I)
게스트 확장(E)
게스트 확장 ISO(A): C:₩Program Files₩Oracle₩VirtualBox₩VBoxGuestAdditions.iso


UbuntuDesk
실행 중
WindowDesk
실행 중
UbuntuGW
전원 꺼짐

우분투 서버 생성

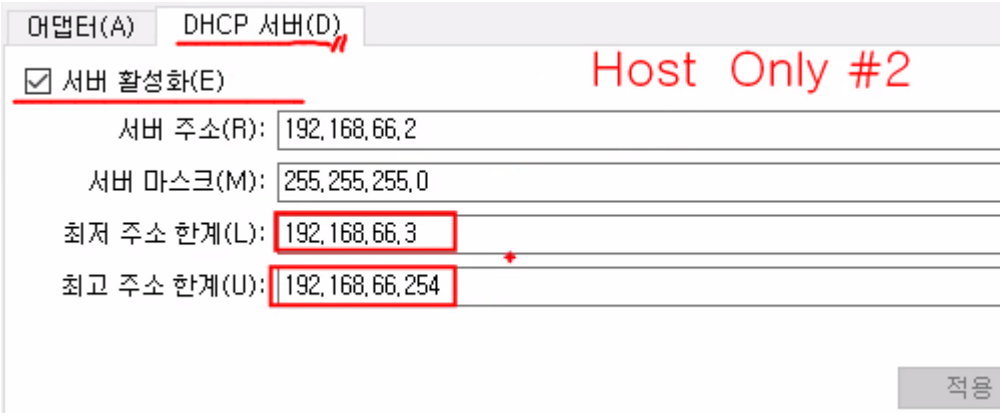

만들기(C)
삭제(R)
속성(P)
호스트 전용 네트워크
NAT 네트워크
클라우드 네트워크
이름
IPv4 접두사
IPv6 접두사
DHCP 서버
VirtualBox Host-Only Ethernet Adapter
192.168.56.1/24
사용함
VirtualBox Host-Only Ethernet Adapter #2
192.168.59.1/24
사용 안 함
VirtualBox Host-Only Ethernet Adapter #3
192.168.126.1/24
사용 안 함

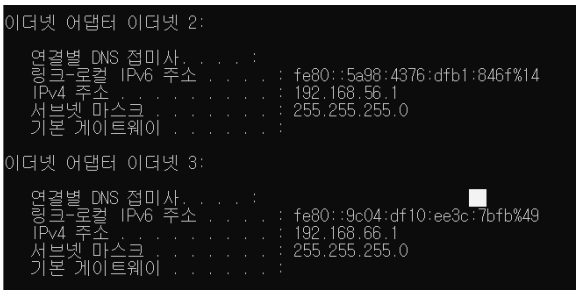
이름	IPv4 접두사	IPv6 접두사	DHCP 서버
VirtualBox Host-Only Ethernet Adapter	192.168.56.1/24		사용함
VirtualBox Host-Only Ethernet Adapter #2	192.168.66.1/24		사용함
VirtualBox Host-Only Ethernet Adapter #3	192.168.126.1/24		사용 안 함

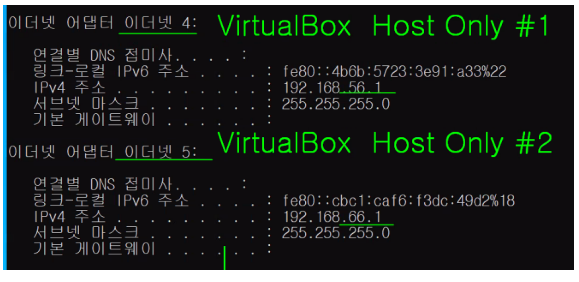
ip 맞춰주고 dhcp 서버도 활성화 시키기

: DHCP(Dynamic Host Configuration Protocol) 역할

→ 서버는 컴퓨터 네트워크에서 사용자 및 장치에게 IP 주소 및 관련 네트워크 설정 정보를 자동으로 할당하는 역할. DHCP는 클라이언트 장치가 네트워크에 연결될 때 자동으로 IP 주소를 얻을 수 있도록 도와주는 프로토콜



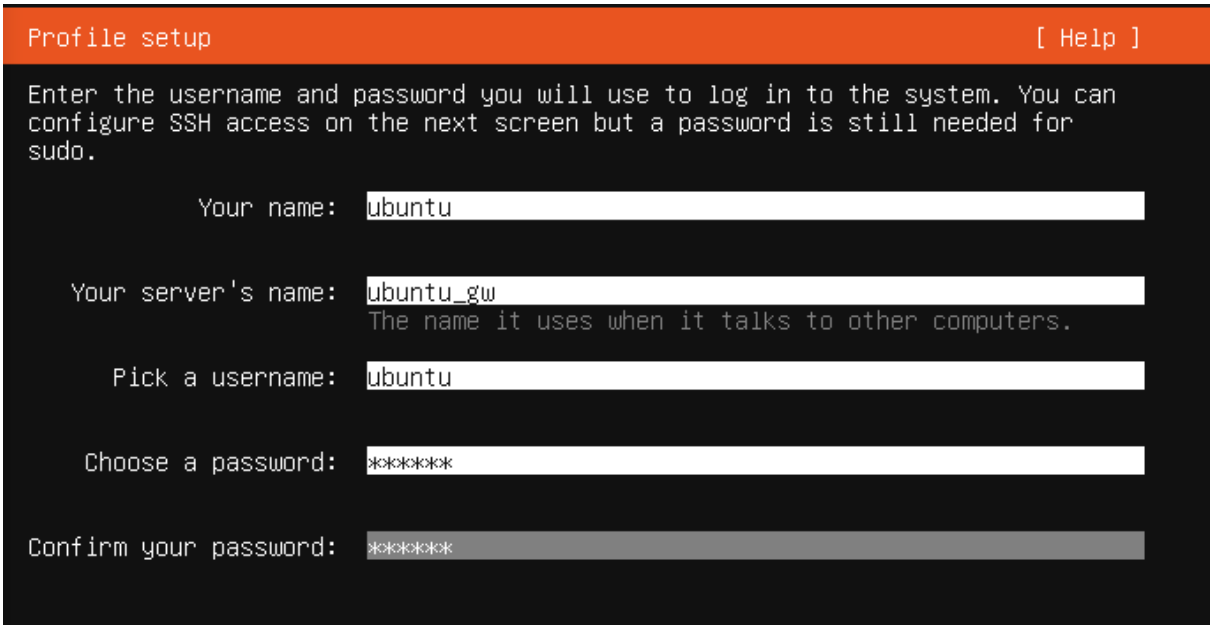


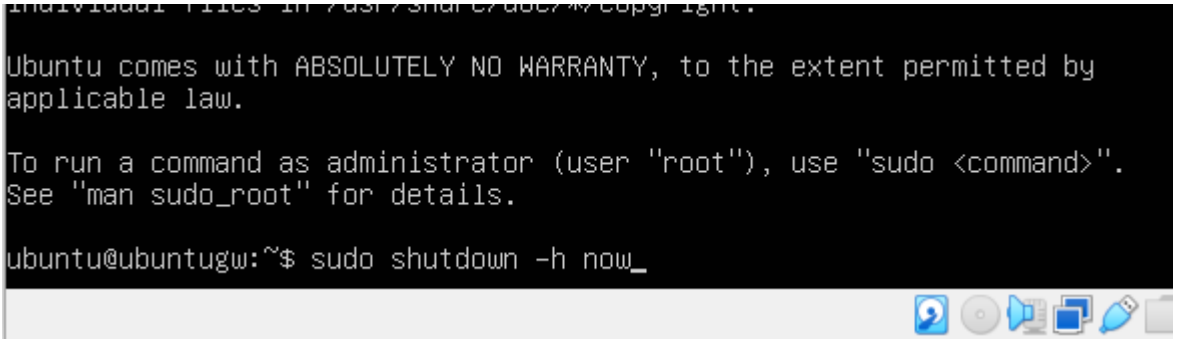



```
이더넷 어댑터 이더넷 2:

   연결별 DNS 접미사. . . . :
   설명. . . . . . . . . . . : VirtualBox Host-Only Ethernet Adapter
   물리적 주소 . . . . . . . : 0A-00-27-00-00-0E
   DHCP 사용 . . . . . . . . : 아니요
   자동 구성 사용. . . . . . : 예
   링크-로컬 IPv6 주소 . . . . : fe80::5a98:4376:dfb1:846f%14(기본 설정)
   IPv4 주소 . . . . . . . . : 192.168.56.1(기본 설정)
   서브넷 마스크 . . . . . . : 255.255.255.0
   기본 게이트웨이 . . . . . :
   DHCPv6 IAID . . . . . . . : 604635175
   DHCPv6 클라이언트 DUID. . . : 00-01-00-01-2D-16-99-17-8C-B0-E9-1C-C7-80
   DNS 서버. . . . . . . . . . : fec0:0:0:ffff::1%1
                                 fec0:0:0:ffff::2%1
                                 fec0:0:0:ffff::3%1
   Tcpip를 통한 NetBIOS. . . . : 사용

이더넷 어댑터 이더넷 3:

   연결별 DNS 접미사. . . . :
   설명. . . . . . . . . . . : VirtualBox Host-Only Ethernet Adapter #2
   물리적 주소 . . . . . . . : 0A-00-27-00-00-31
   DHCP 사용 . . . . . . . . : 아니요
   자동 구성 사용. . . . . . : 예
   링크-로컬 IPv6 주소 . . . . : fe80::9c04:df10:ee3c:7bfb%49(기본 설정)
   IPv4 주소 . . . . . . . . : 192.168.66.1(기본 설정)
   서브넷 마스크 . . . . . . : 255.255.255.0
   기본 게이트웨이 . . . . . :
   DHCPv6 IAID . . . . . . . : 822738983
   DHCPv6 클라이언트 DUID. . . : 00-01-00-01-2D-16-99-17-8C-B0-E9-1C-C7-80
   DNS 서버. . . . . . . . . . : fec0:0:0:ffff::1%1
                                 fec0:0:0:ffff::2%1
                                 fec0:0:0:ffff::3%1
   Tcpip를 통한 NetBIOS. . . . : 사용
```

확인해보기

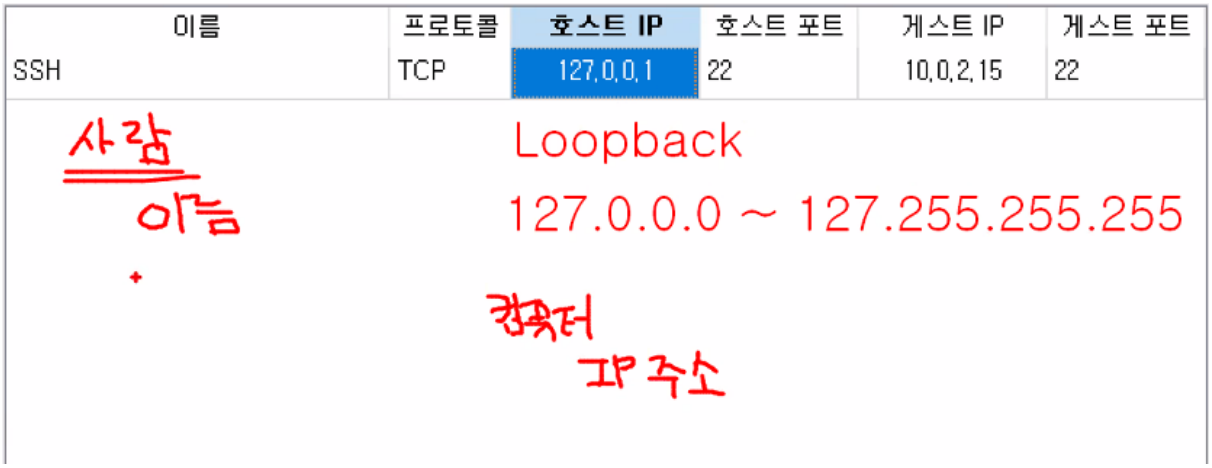
우분투 서버 세팅





sudo shutdown -h now

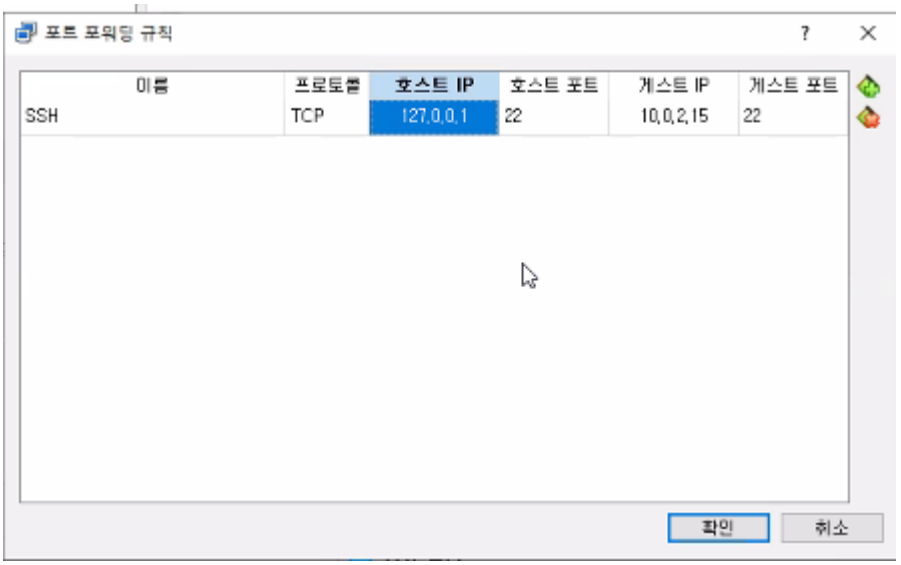
포트포워딩



loopback: 자문자답

내가 내 이름 부르는데에는 이름이 필요없다

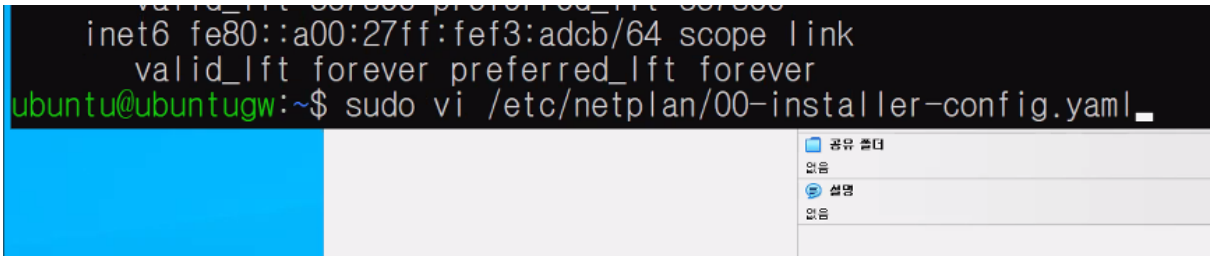
그래서 loopback 가지고는 외부 통신이 안된다.

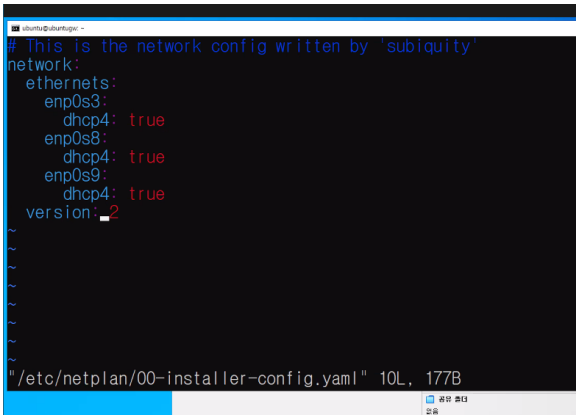


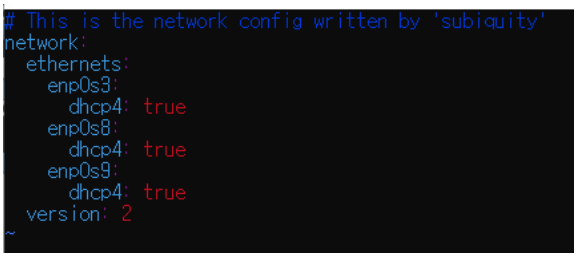

```
C:₩Users₩mzc>ssh ubuntu@127.0.0.1
The authenticity of host '127.0.0.1 (127.0.0.1)' can't be established.
ECDSA key fingerprint is SHA256:YvgmlFa9mDslMJ1Jp4j4E9wzi/tQ7++Vl3fMONoJlrE
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '127.0.0.1' (ECDSA) to the list of known hosts.
ubuntu@127.0.0.1's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-91-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Wed Dec 27 01:12:24 AM UTC 2023

  System load:  1.580078125       Processes:               120
  Usage of /:   44.0% of 11.21GB  Users logged in:         1
  Memory usage: 11%               IPv4 address for enp0s3: 10.0.2.15
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

44 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


Last login: Wed Dec 27 01:12:25 2023 from 127.0.0.1
ubuntu@ubuntugw:~$
```

로컬에서 우분투 서버 접속 가능해짐

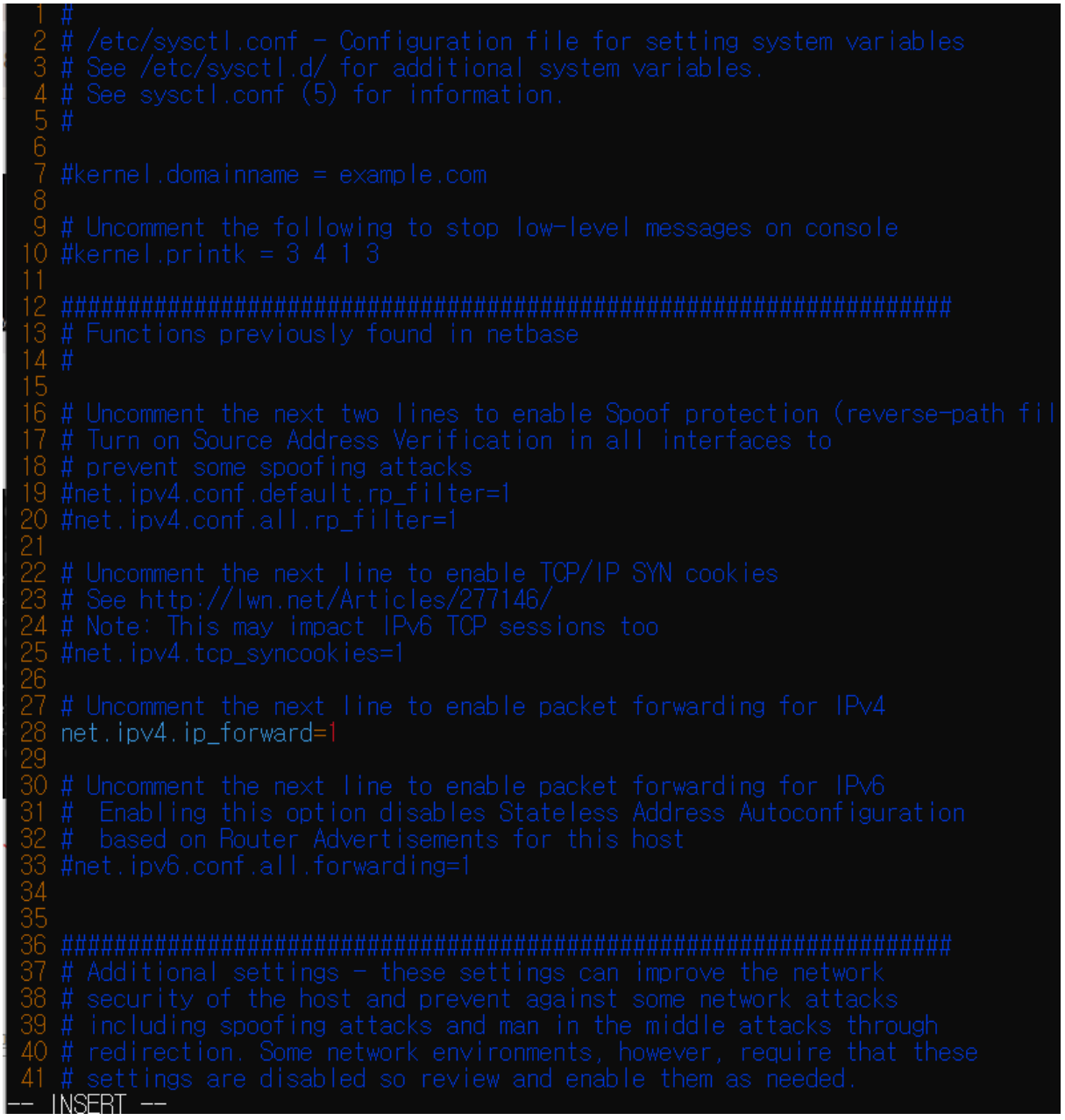
127.0.0.1 로 프로토콜 해놓았기 때문에 접속 가능해진거.







8번 9번 인터페이스가 잘 받아와짐!!

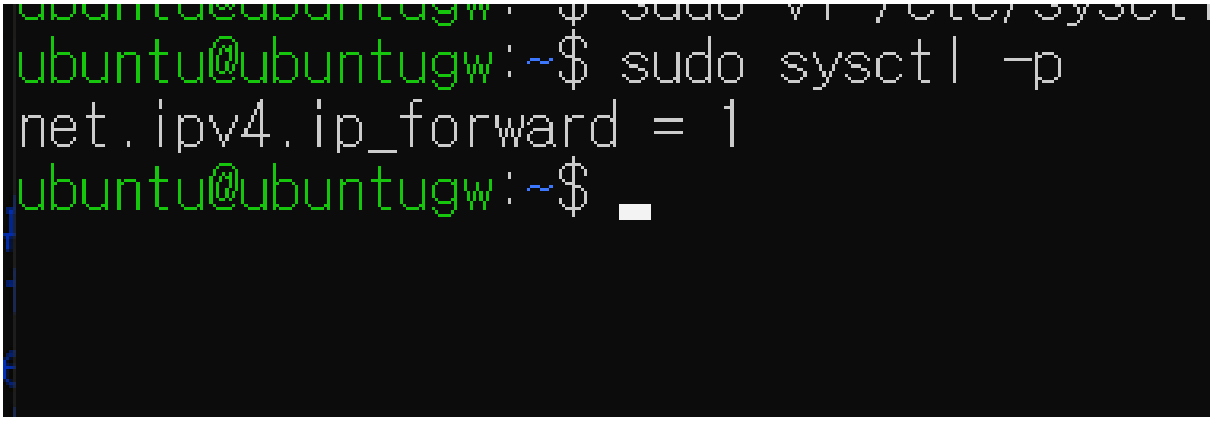


이게 라우팅 설정

주석 푼 거 무슨 의미 → 이 리눅스 게이트웨이로 사용하게삳

게이트웨이: 서로 다른 네트워크에 존재하는 장치들이 외부 트래픽 요청하면 게이트웨이가 수행해야해. 포워딩 시켜줘야해

근데 일반적으로 그런 포워딩 기능이 없어 그걸 활성화 시켜준 거

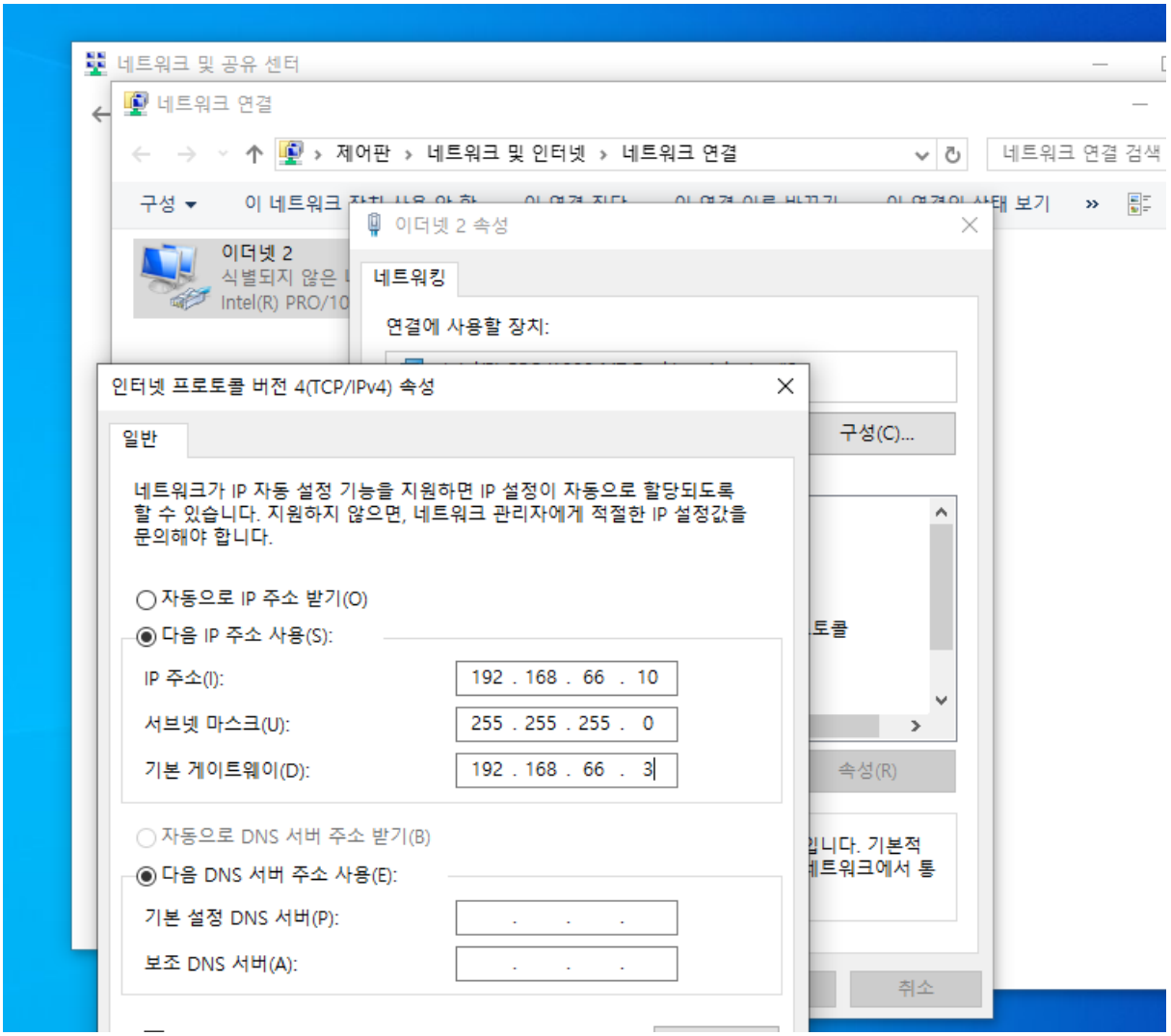


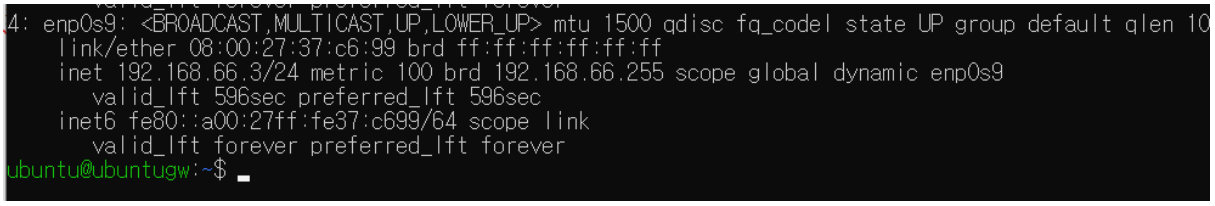
그래서 활성화 된 거

forward =1

다른 pc 에 라우팅 전달시켜줄 수 있다.

→ 윈도우 가상 머신 와서





게이트웨이 주소

92. 168.66.3

윈도우에서 그렇다면 ping 192.168.66.3

```
C:\Users\user>ping 192.168.66.3

Pinging 192.168.66.3 with 32 bytes of data:
Reply from 192.168.66.3: bytes=32 time<1ms TTL=64
Reply from 192.168.66.3: bytes=32 time<1ms TTL=64
Reply from 192.168.66.3: bytes=32 time<1ms TTL=64
Reply from 192.168.66.3: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.66.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\user>
```

ping 192.168.66.3 게이트웨이 잘 작동하는지 확인해본 거

윈도우 서버에서 우분투 서버로 통신이 되게끔 하는 거?

여기서

게이트 번호 192..168.56.103

확인하고

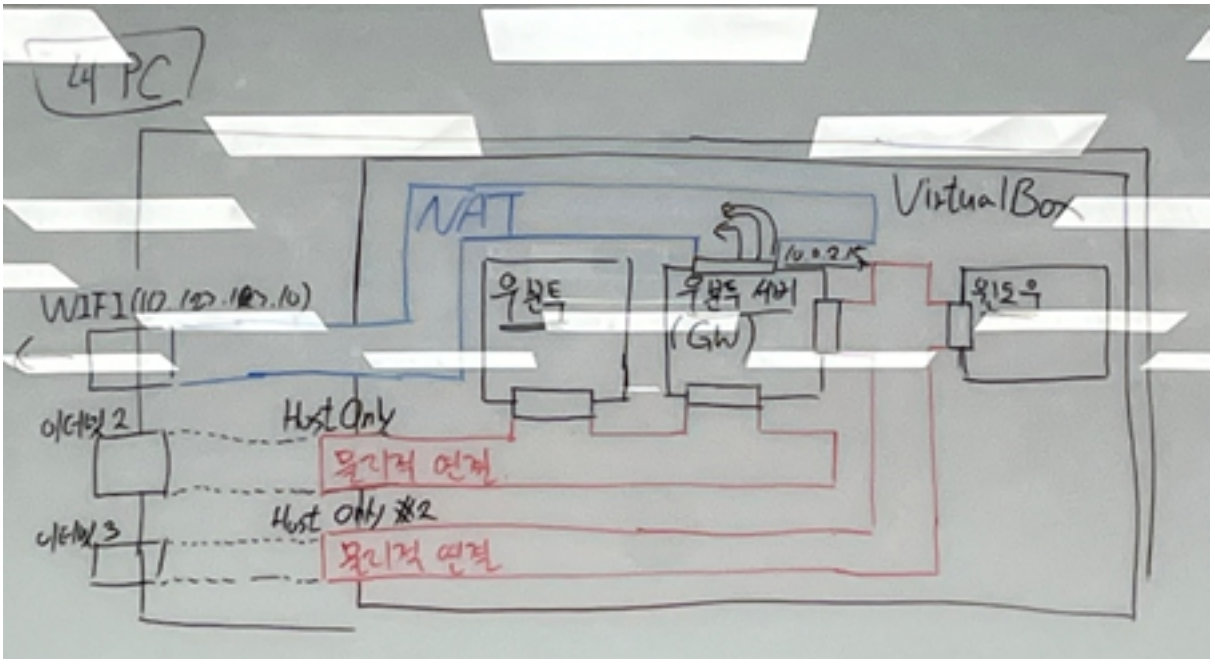
```
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 100
0
    link/ether 08:00:27:4c:4a:28 brd ff:ff:ff:ff:ff:ff
    inet 192.168.56.103/24 metric 100 brd 192.168.56.255 scope global dynamic enp0s8
       valid_lft 346sec preferred_lft 346sec
    inet6 fe80::a00:27ff:fe4c:4a28/64 scope link
       valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 100
0
```

우분투 네트워크에서 수정해주고

```
# Let NetworkManager manage all devices on this system
network:
  version: 2
  renderer: NetworkManager
  ethernets:
    enp0s8:
      dhcp4: yes
      #addresses: [192.168.250.20/24,192.168.250.11/24]
      gateway4: 192.168.56.101
      #nameservers:
      #addresses: [8.8.8.8,8.8.4.4]
~
~
```

```
ubuntu@ubuntugw:~$ ping 192.168.56.101
PING 192.168.56.101 (192.168.56.101) 56(84) bytes of data.
64 bytes from 192.168.56.101: icmp_seq=1 ttl=64 time=0.773 ms
64 bytes from 192.168.56.101: icmp_seq=2 ttl=64 time=0.615 ms
64 bytes from 192.168.56.101: icmp_seq=3 ttl=64 time=0.693 ms
64 bytes from 192.168.56.101: icmp_seq=4 ttl=64 time=0.420 ms
64 bytes from 192.168.56.101: icmp_seq=5 ttl=64 time=0.291 ms
64 bytes from 192.168.56.101: icmp_seq=6 ttl=64 time=0.296 ms
64 bytes from 192.168.56.101: icmp_seq=7 ttl=64 time=0.577 ms
64 bytes from 192.168.56.101: icmp_seq=8 ttl=64 time=0.428 ms
64 bytes from 192.168.56.101: icmp_seq=9 ttl=64 time=0.452 ms
64 bytes from 192.168.56.101: icmp_seq=10 ttl=64 time=0.855 ms
64 bytes from 192.168.56.101: icmp_seq=11 ttl=64 time=0.613 ms
64 bytes from 192.168.56.101: icmp_seq=12 ttl=64 time=0.555 ms
64 bytes from 192.168.56.101: icmp_seq=13 ttl=64 time=0.539 ms
```

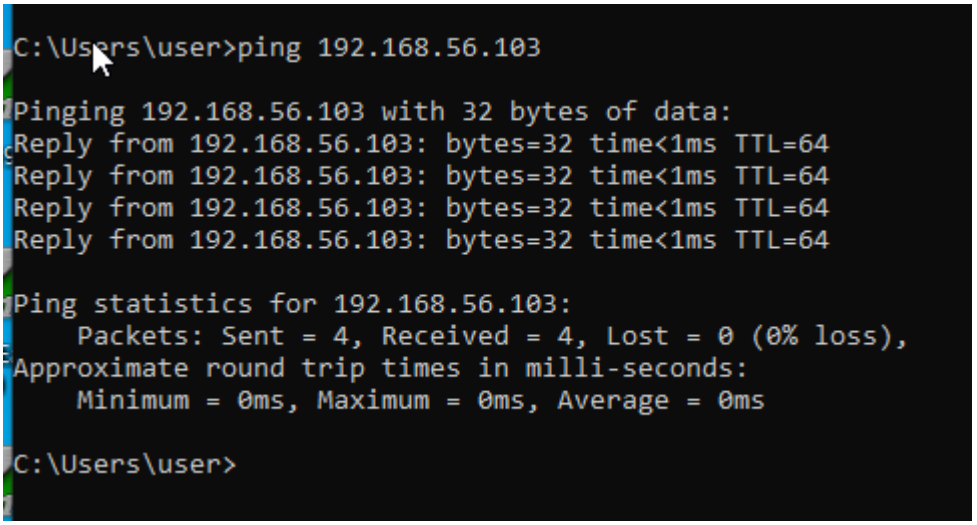
윈도우 → 우분투 서버 → 우분투



Mozilla Thunderbird

```
# ...er manage all devices on this system
network:
  version: 2
  renderer: NetworkManager
  ethernets:
    enp0s8:
      dhcp4: yes
      #addresses: [192.168.250.20/24,192.168.250.11/24]
      gateway4: 192.168.56.103
      #nameservers:
      #addresses: [8.8.8.8,8.8.4.4]
~
```

```
       valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 100
0
    link/ether 08:00:27:4c:4a:28 brd ff:ff:ff:ff:ff:ff
    inet 192.168.56.103/24 metric 100 brd 192.168.56.255 scope global dynamic enp0s8
       valid_lft 346sec preferred_lft 346sec
    inet6 fe80::a00:27ff:fe4c:4a28/64 scope link
       valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 100
0
    link/ether 08:00:27:37:c6:99 brd ff:ff:ff:ff:ff:ff
    inet 192.168.66.3/24 metric 100 brd 192.168.66.255 scope global dynamic enp0s9
       valid_lft 347sec preferred_lft 347sec
    inet6 fe80::a00:27ff:fe37:c699/64 scope link
       valid_lft forever preferred_lft forever
```


C:\Users\user>ping 192.168.56.103
Pinging 192.168.56.103 with 32 bytes of data:
Reply from 192.168.56.103: bytes=32 time<1ms TTL=64
Reply from 192.168.56.103: bytes=32 time<1ms TTL=64
Reply from 192.168.56.103: bytes=32 time<1ms TTL=64
Reply from 192.168.56.103: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.56.103:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Users\user>