

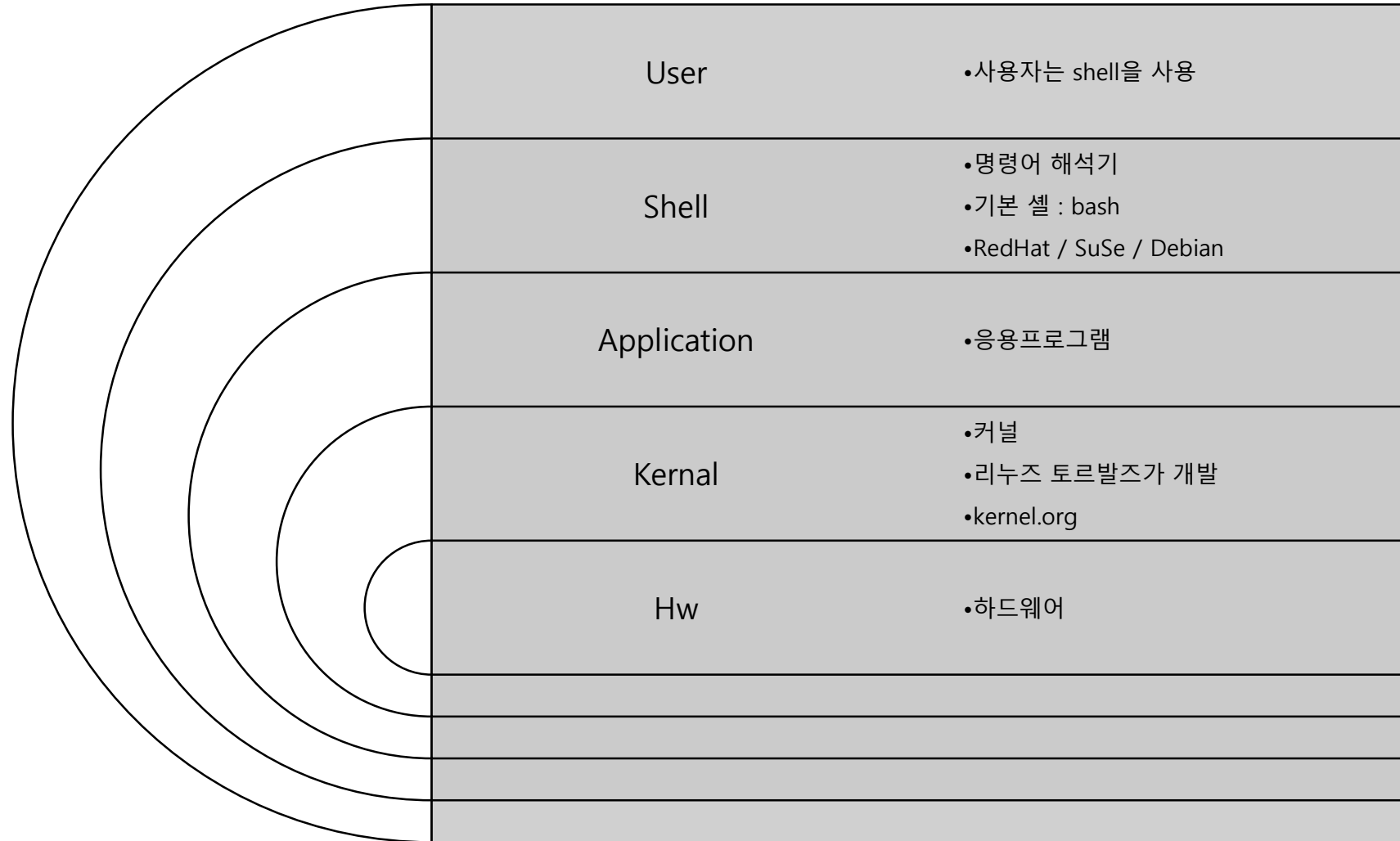


우분투

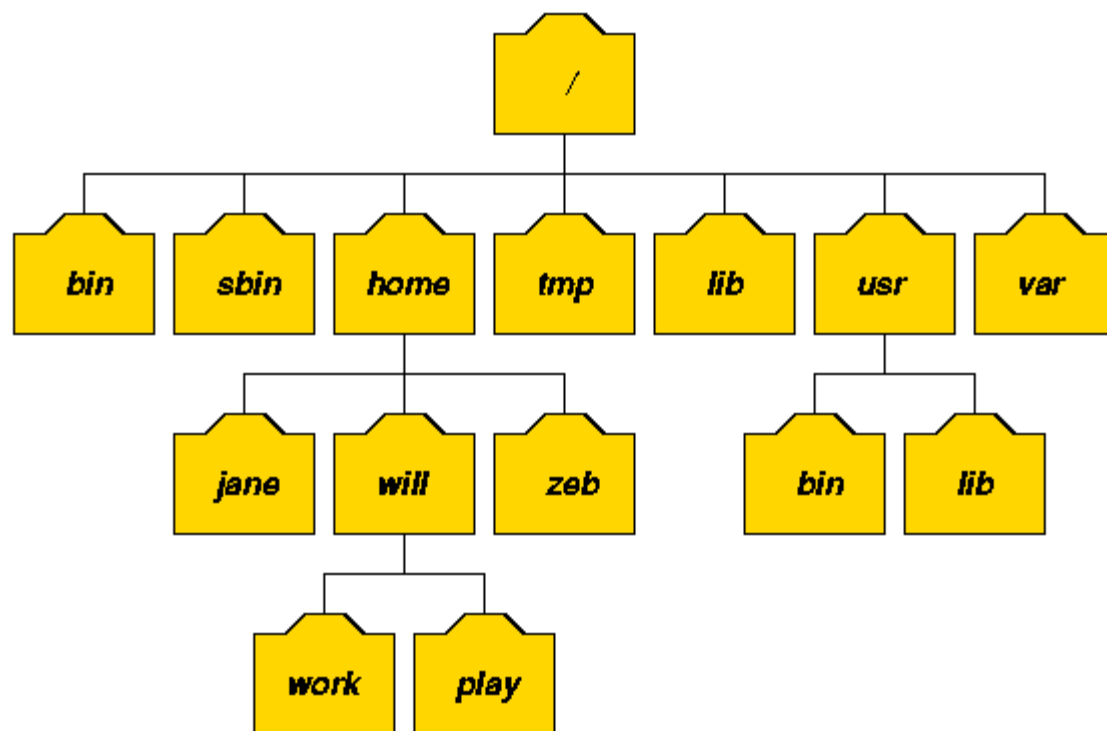
# 다운로드

- Ubuntu
  - ✓ 리눅스 운영체제
  - ✓ <https://ubuntu.com/download/server>
- VMWare
  - ✓ 리눅스 운영체제를 설치할 가상 머신
  - ✓ <https://www.vmware.com/kr/products/workstation-pro/workstation-pro-evaluation.html>
- PuTTY
  - ✓ 리눅스 운영체제가 설치된 가상 머신과 통신할 SSH
  - ✓ <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

# Linux 기본 구조

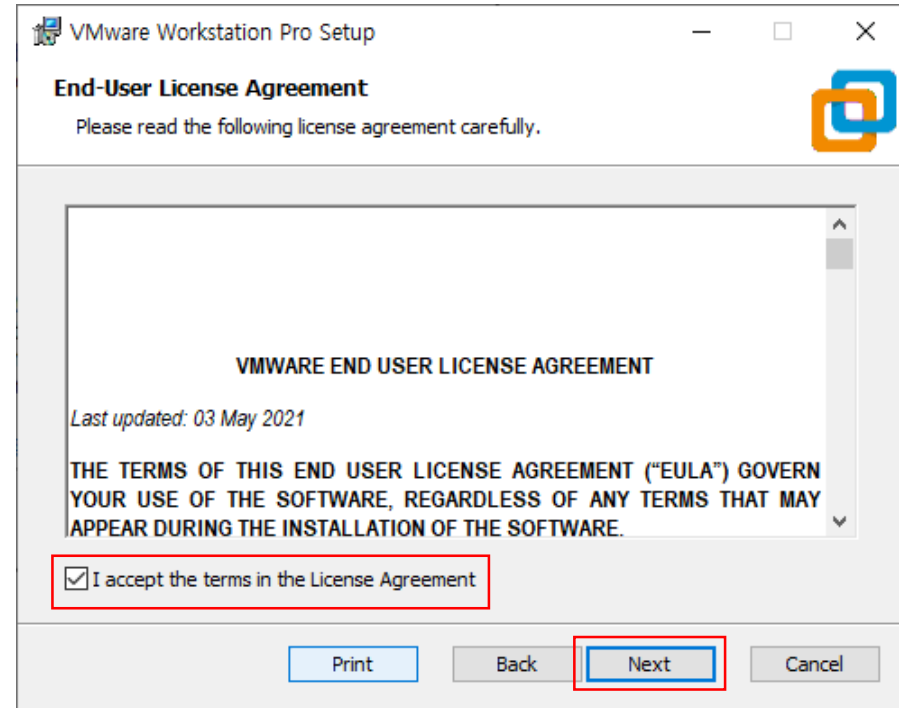
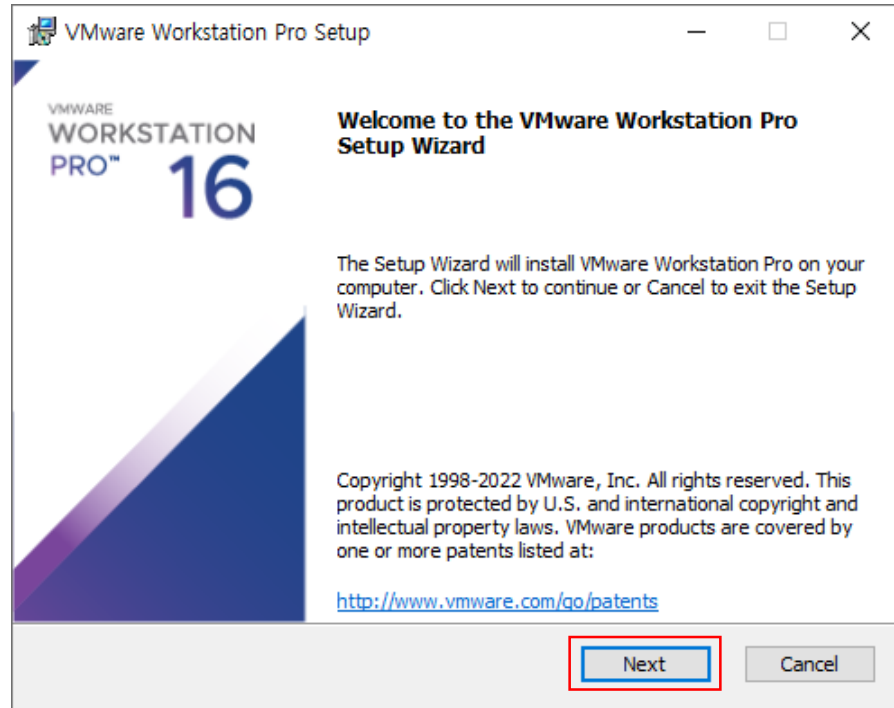


# 파일 시스템 구조



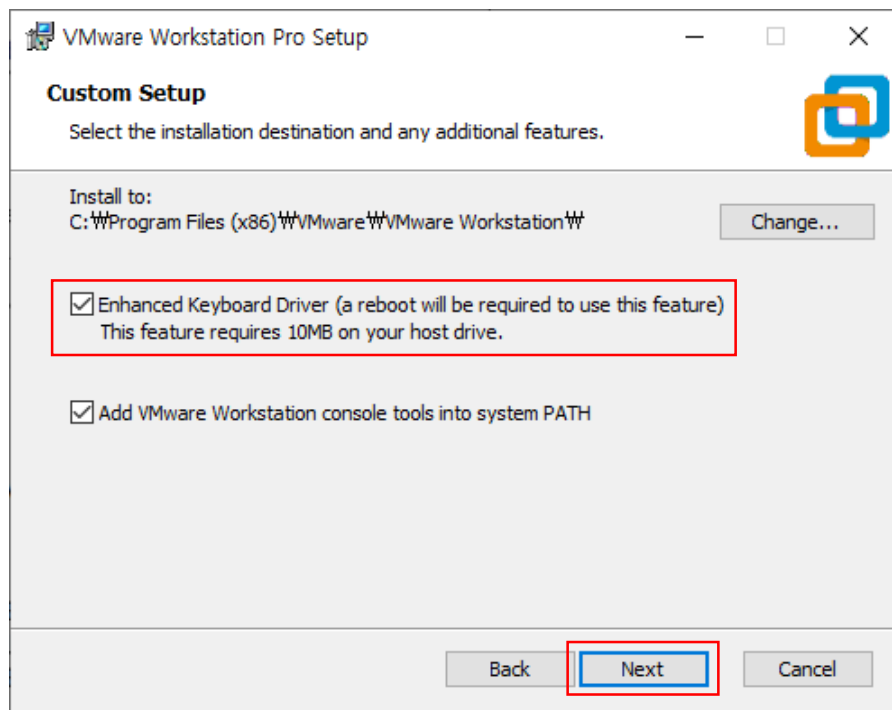
1. 절대경로
  - 1) /로 시작(루트라고 함)
  - 2) /부터 다 적어야 함
2. 상대경로
  - 1) /로 시작 안 함
  - 2) 현재 디렉토리 기준으로 작성
  - 3) 상위(..)
  - 4) 현재(.)
  - 5) 홈(~) : /home/guru
3. 경로확인 명령어
  - 1) pwd (print working directory)
  - 2) 절대경로 보여줌

# VMWare 설치

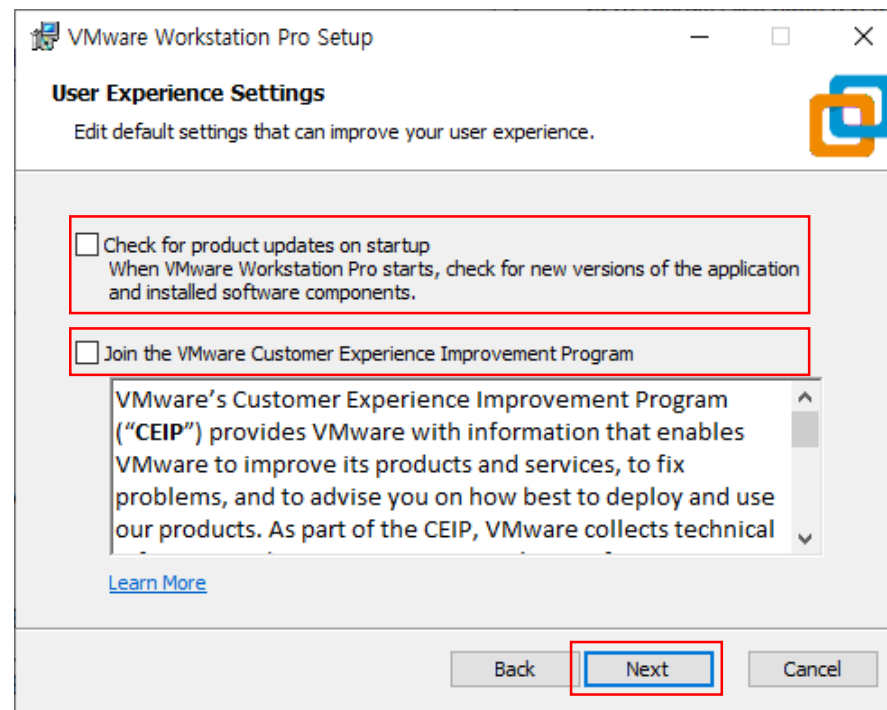


# VMWare 설치

## Enhanced Keyboard Driver 체크

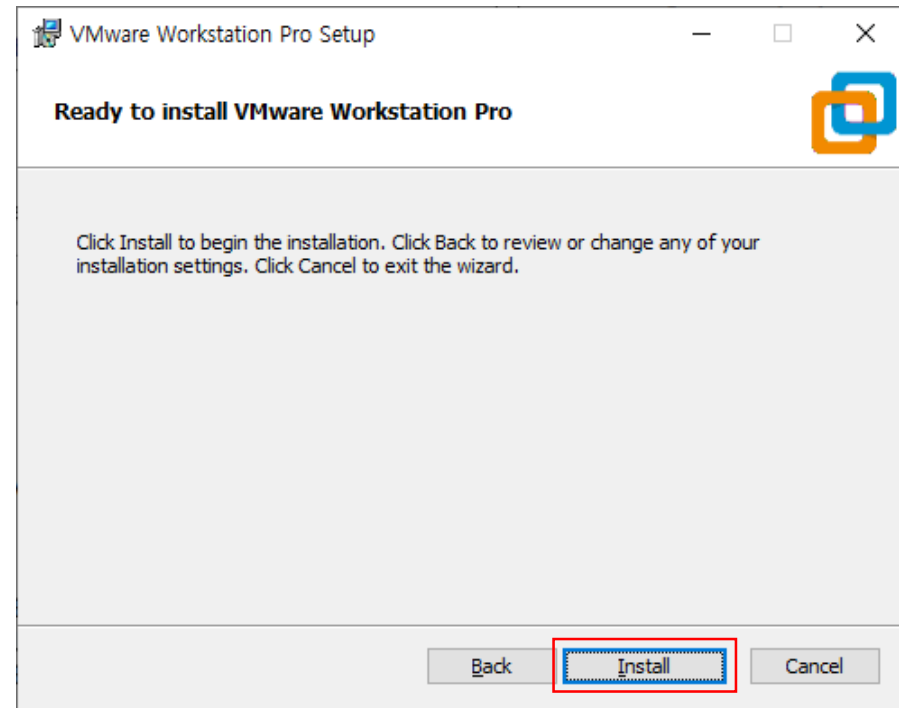
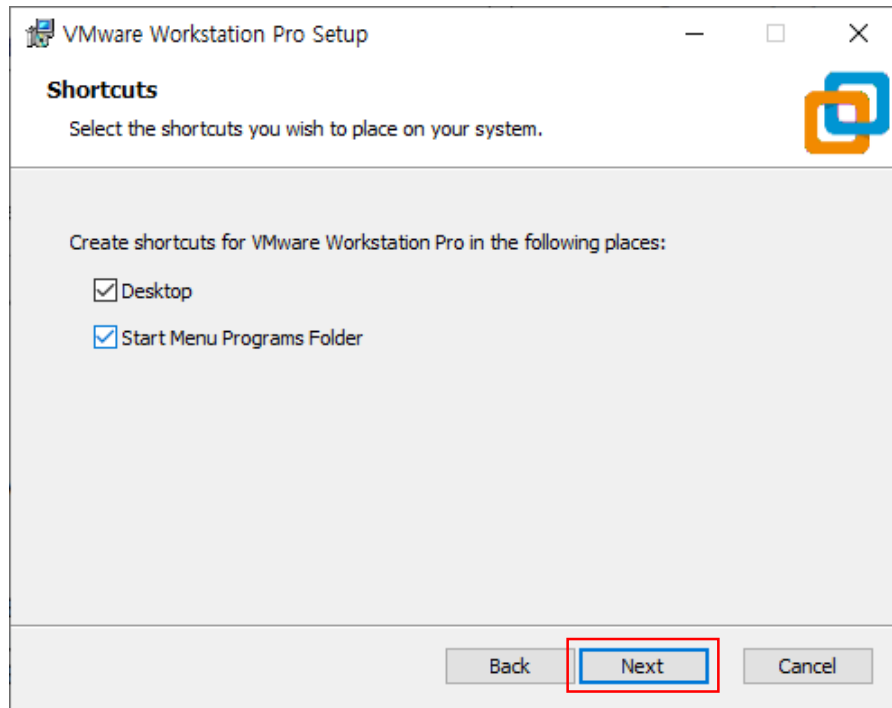


## 모두 체크 해제



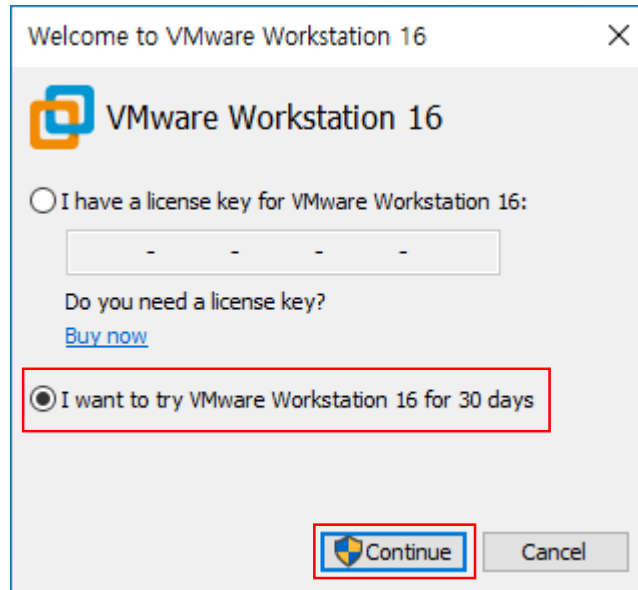
# VMWare 설치

바로 가기 체크 유무



# VMWare 구동

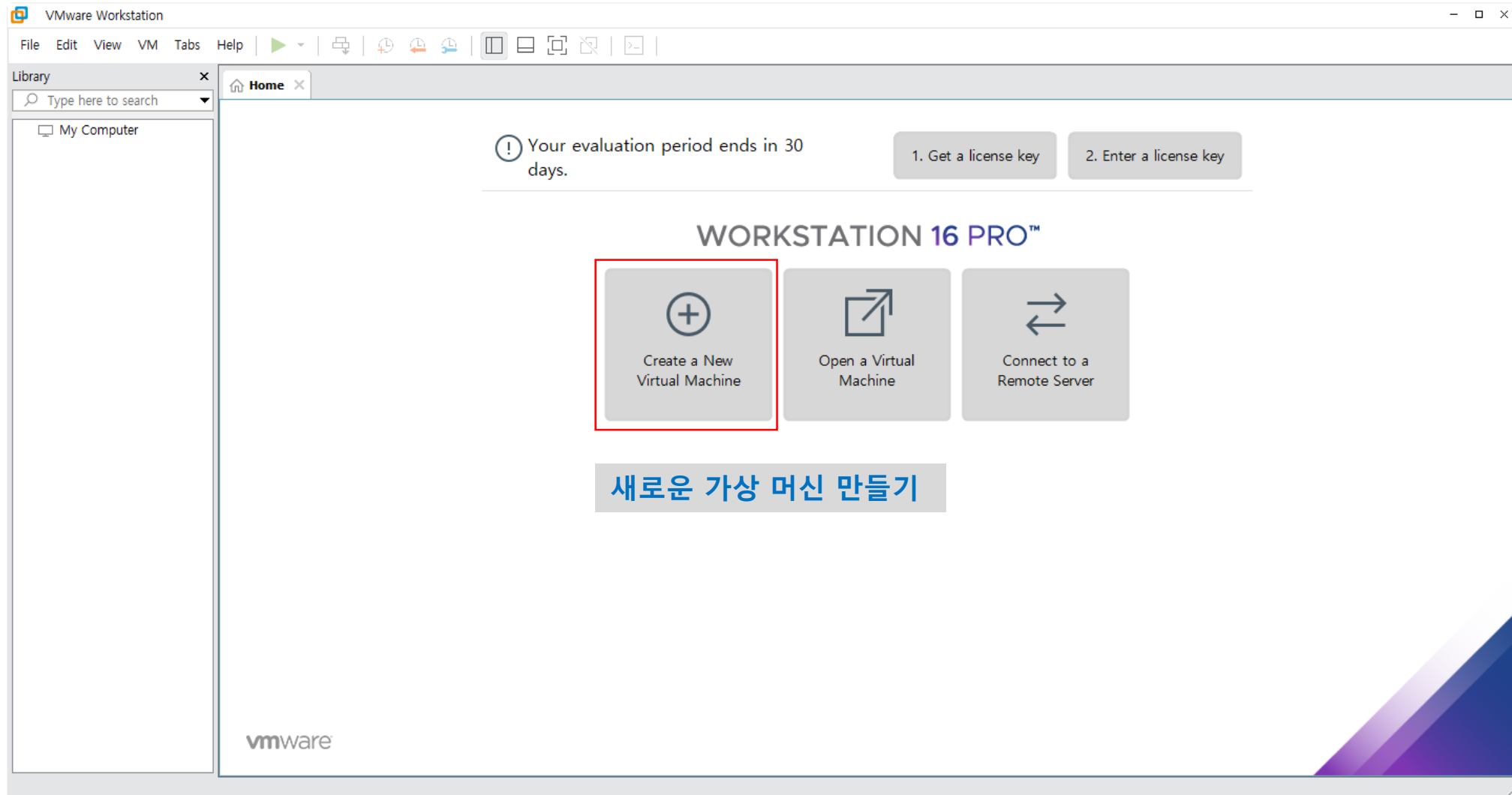
## 30days Trial Version 선택



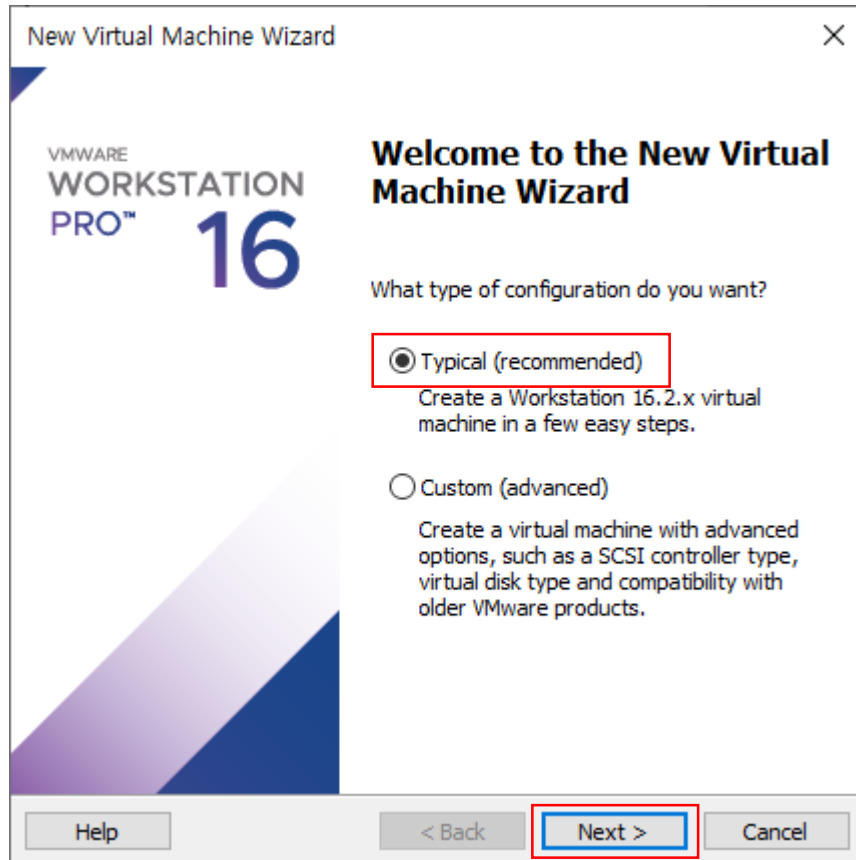


# VMWare 구동

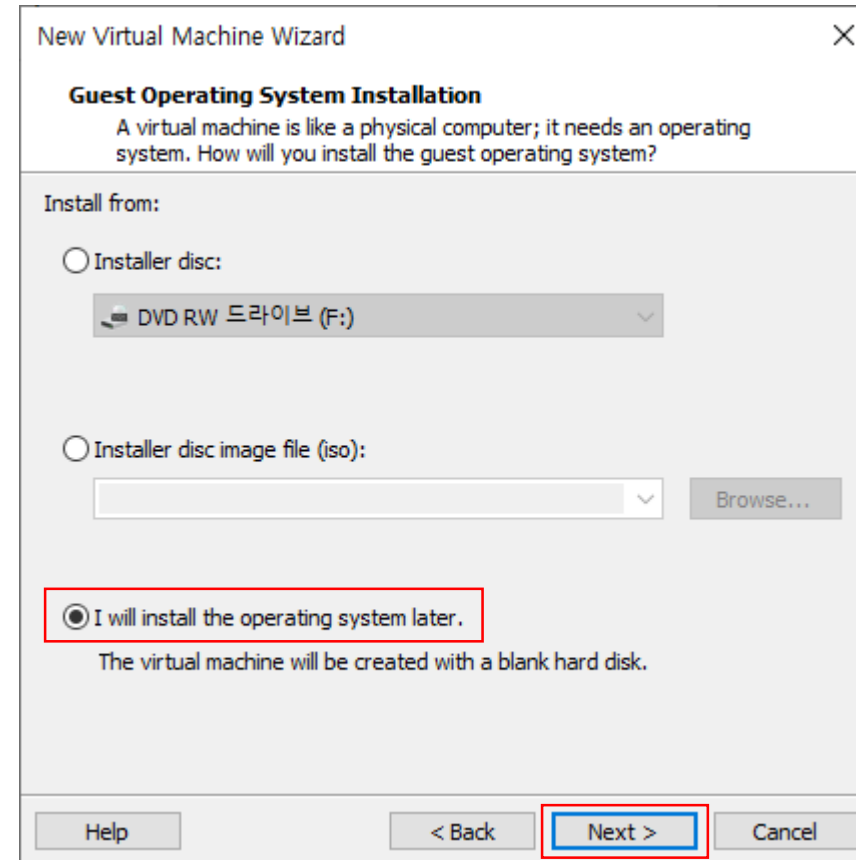
- Create a New Virtual Machine



# VMWare 구동



recommended : 추천



나중에 OS 설치

# VMWare 구동

New Virtual Machine Wizard

**Select a Guest Operating System**  
Which operating system will be installed on this virtual machine?

Guest operating system

☐ Microsoft Windows

☒ Linux

☐ VMware ESX

☐ Other

Version

Ubuntu 64-bit

Help < Back Next > Cancel

Linux Ubuntu 64-bit 선택

New Virtual Machine Wizard

**Name the Virtual Machine**  
What name would you like to use for this virtual machine?

Virtual machine name:

Ubuntu 64-bit

Location:

C:\Users\HPE\Documents\Virtual Machines\Ubuntu 64-bit Browse...

The default location can be changed at Edit > Preferences.

< Back Next > Cancel

# VMWare 구동

New Virtual Machine Wizard

**Specify Disk Capacity**  
How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GB):

Recommended size for Ubuntu 64-bit: 20 GB

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

Help < Back **Next >** Cancel

하드 디스크 용량 결정

New Virtual Machine Wizard

**Ready to Create Virtual Machine**  
Click Finish to create the virtual machine. Then you can install Ubuntu 64-bit.

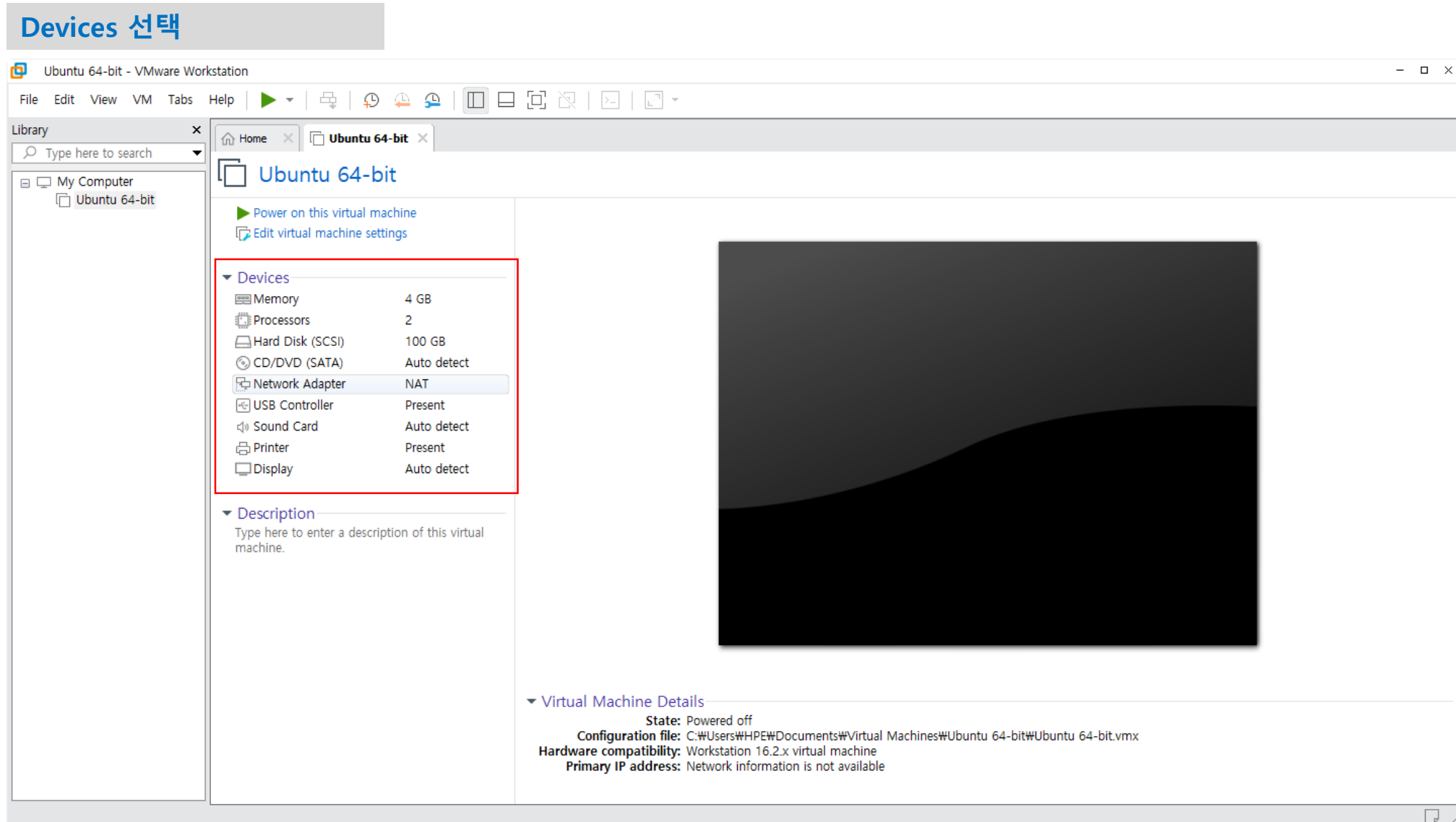
The virtual machine will be created with the following settings:

Name:	Ubuntu 64-bit
Location:	C:\Users\HPE\Documents\Virtual Machines\Ub...
Version:	Workstation 16.2.x
Operating System:	Ubuntu 64-bit
Hard Disk:	100 GB, Split
Memory:	4096 MB
Network Adapter:	NAT
Other Devices:	2 CPU cores, CD/DVD, USB Controller, Printer, Sound...

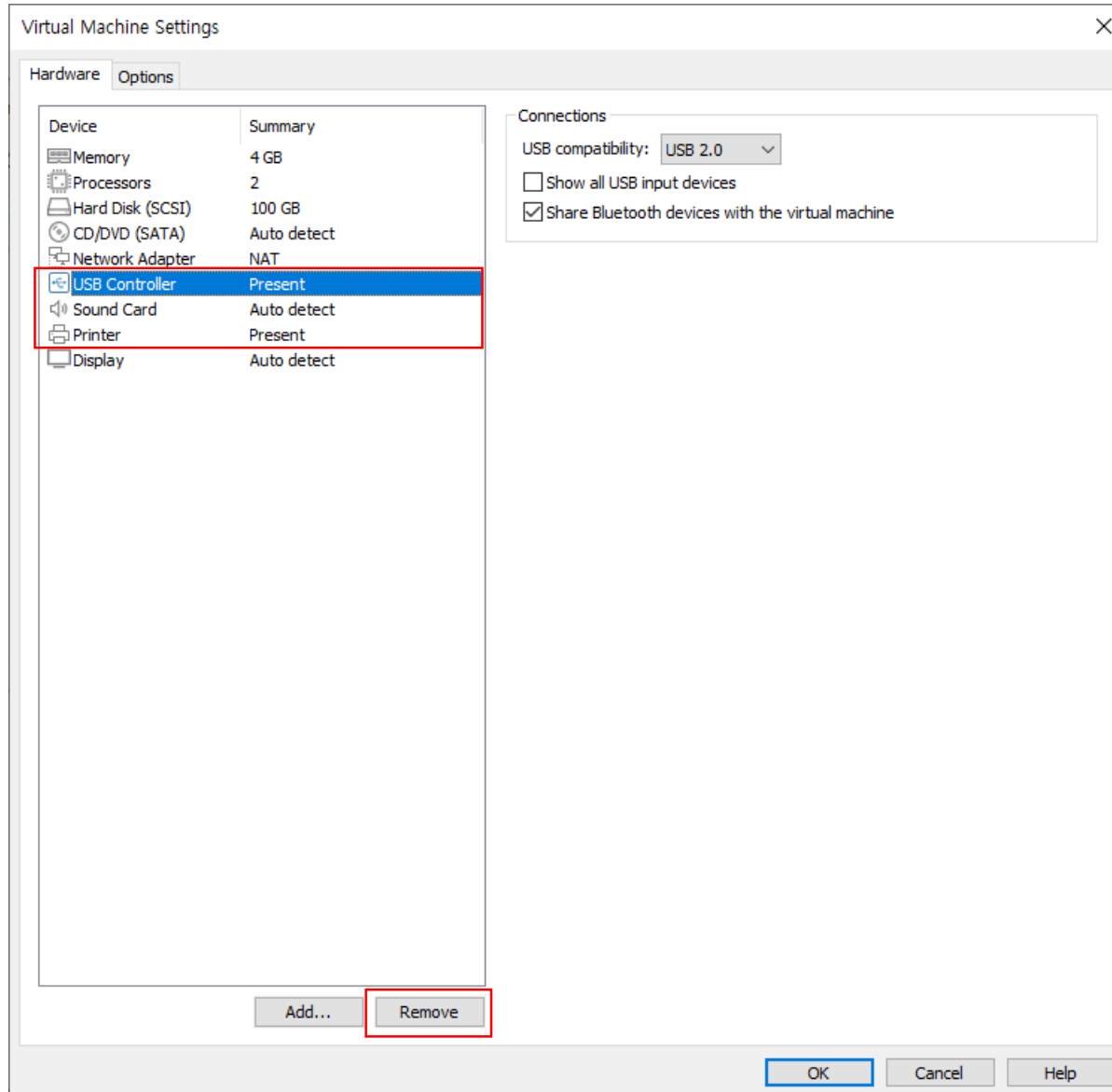
Customize Hardware...

< Back **Finish** Cancel

# VMWare 구동



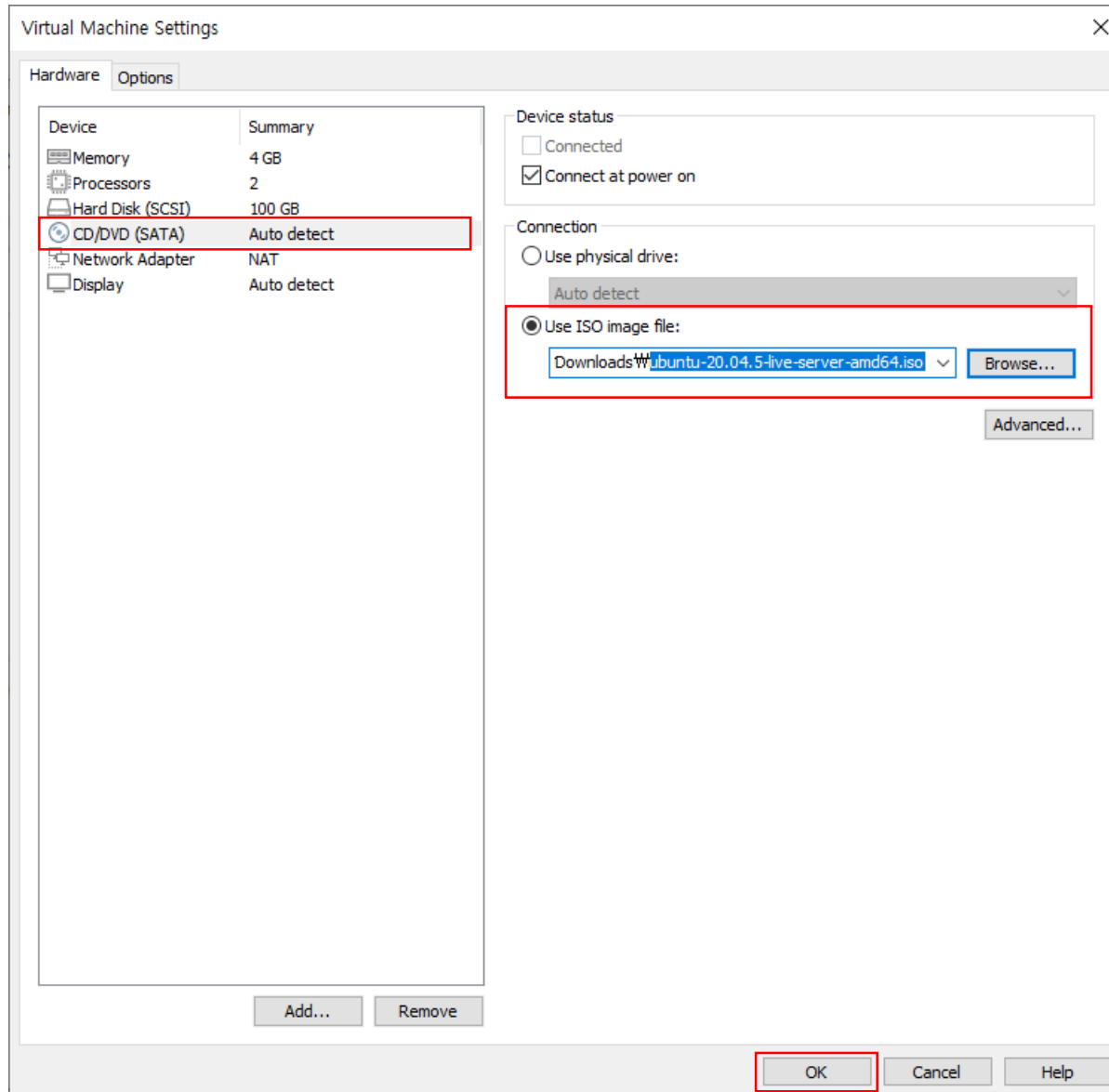
# VMWare 구동



불필요한 장치 제거(필수 작업 아님)

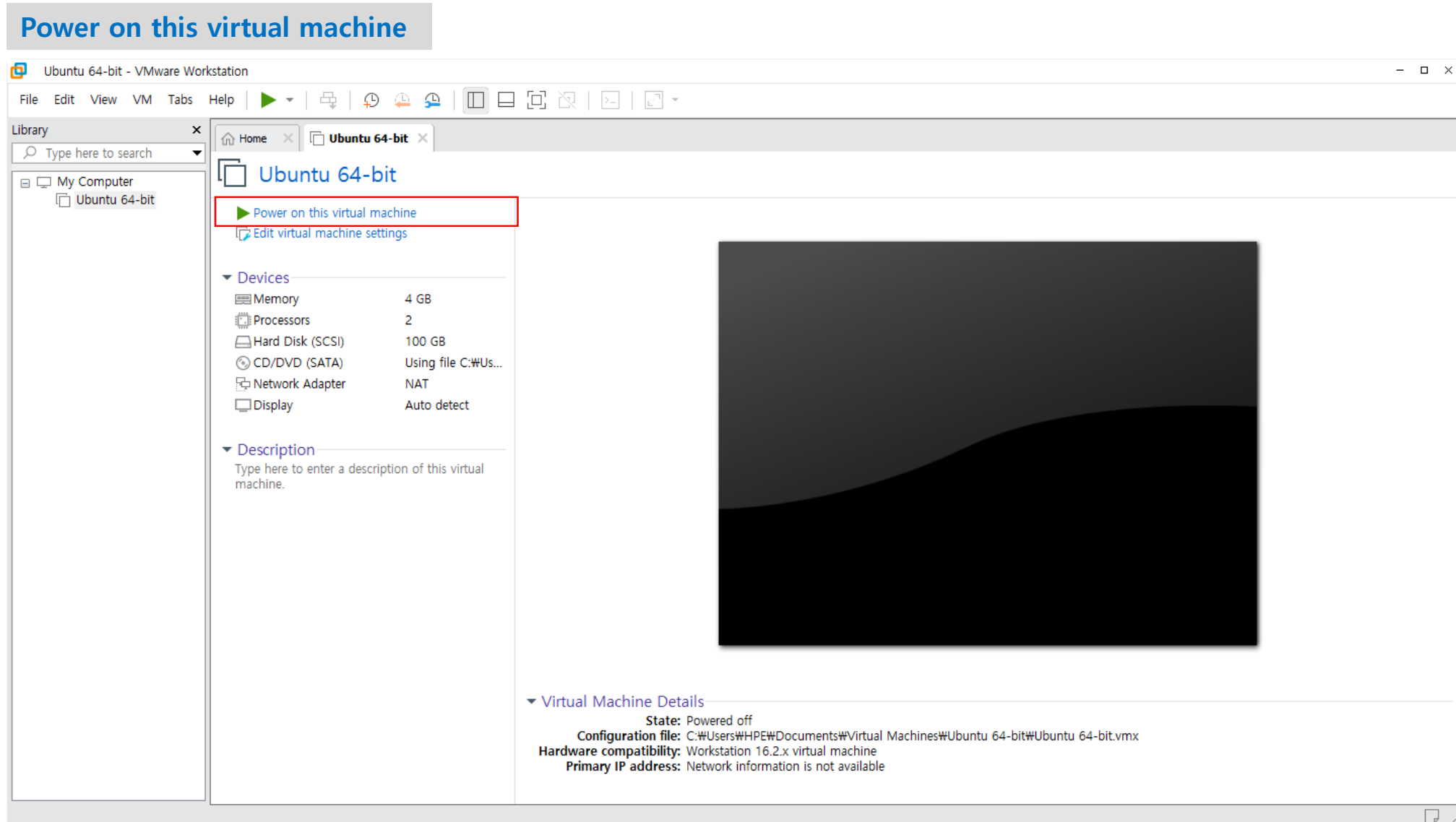
USB Controller  
Sound Card  
Printer

# VMWare 구동



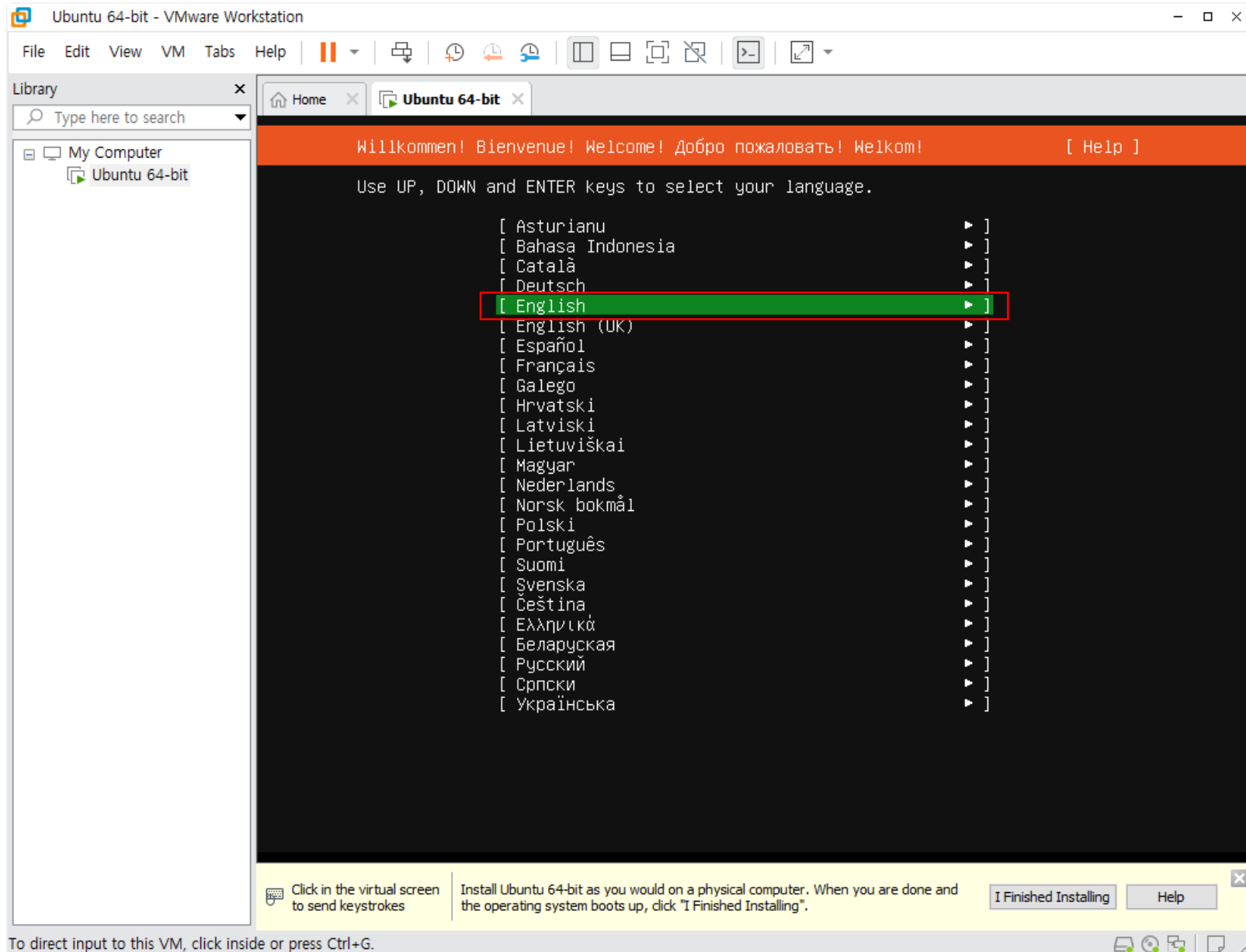
다운로드 받은  
우분투 운영체제 ISO(CD 이미지)  
파일을 CD/DVD 장치에 삽입

# Ubuntu 설치

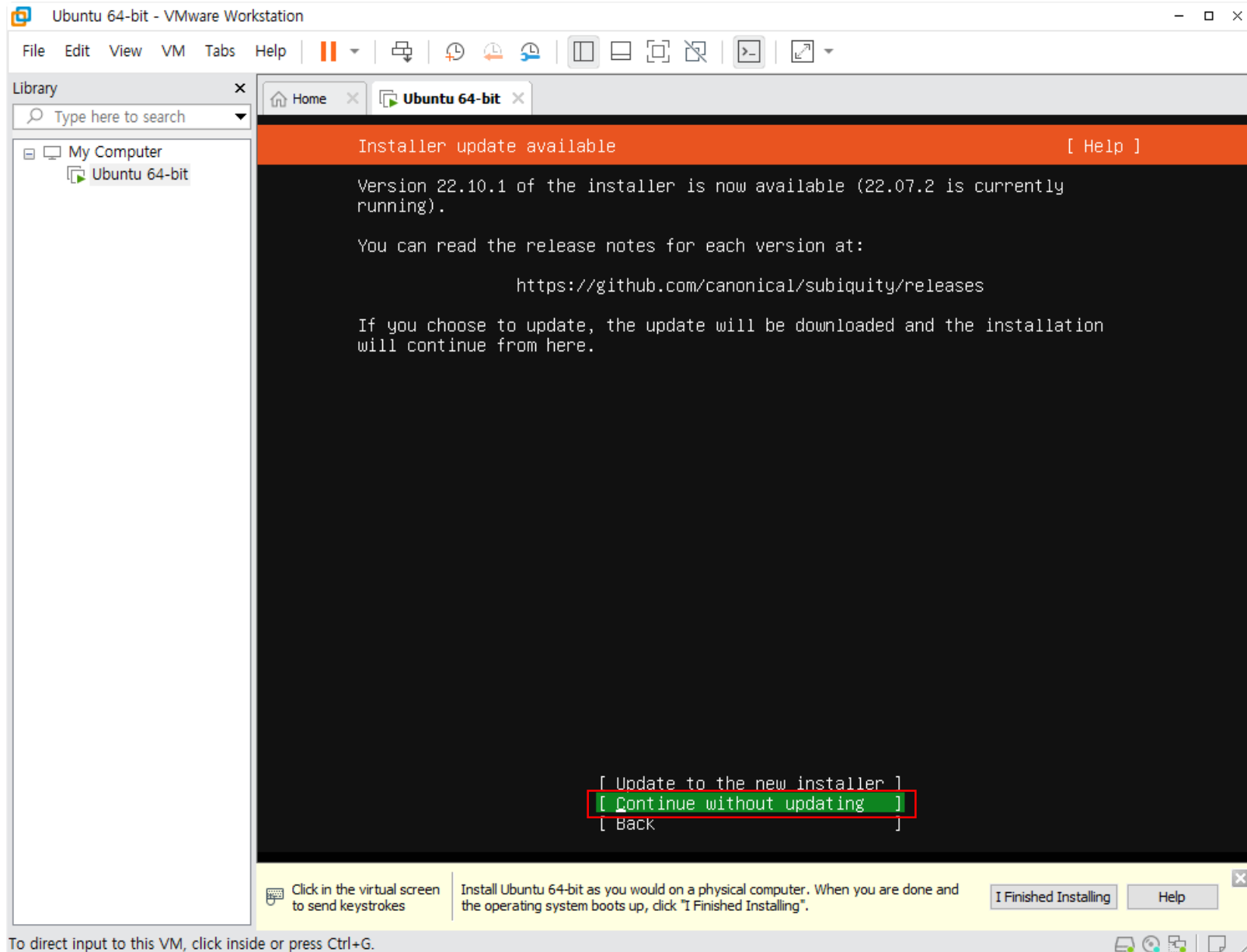




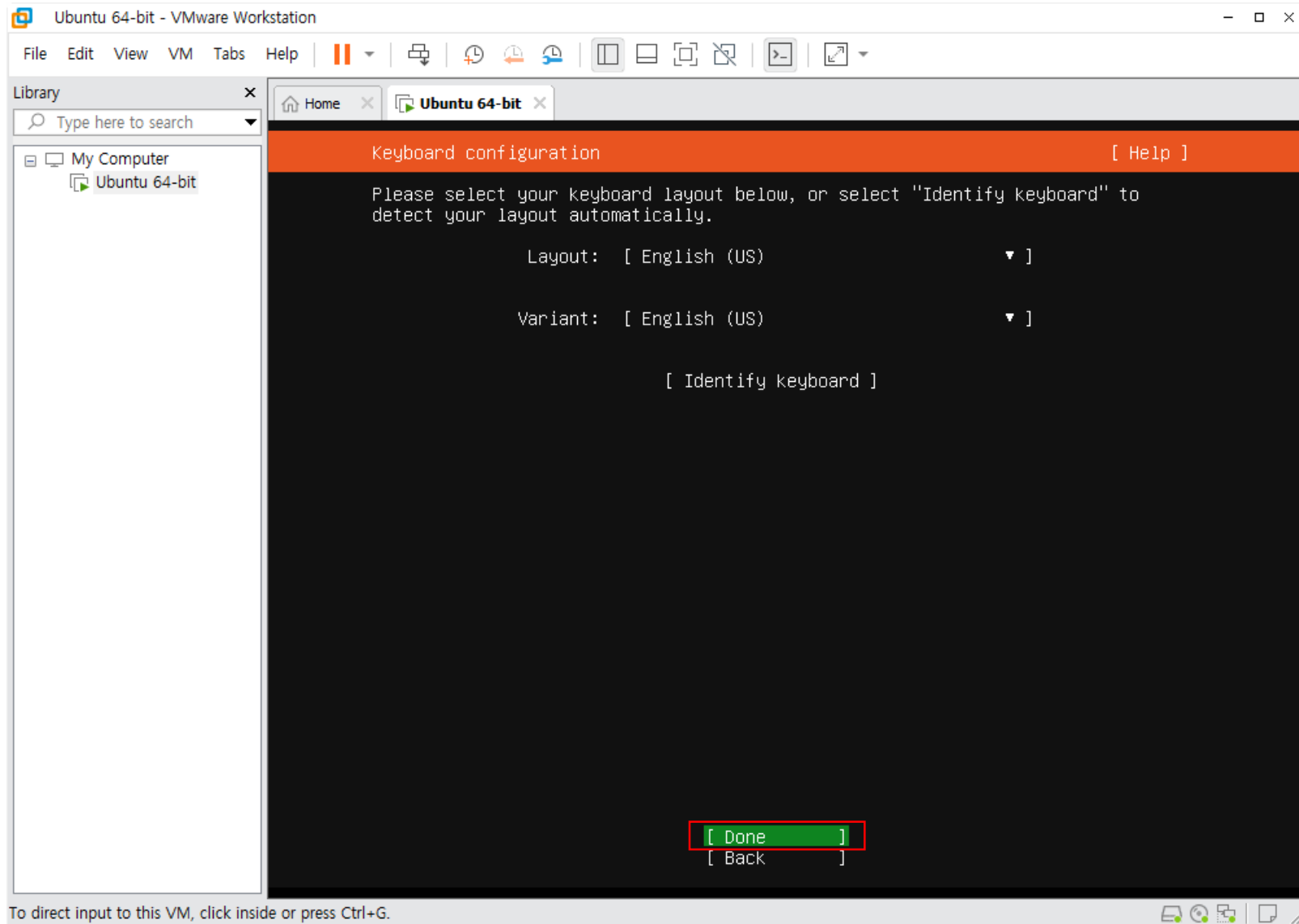
# Ubuntu 설치



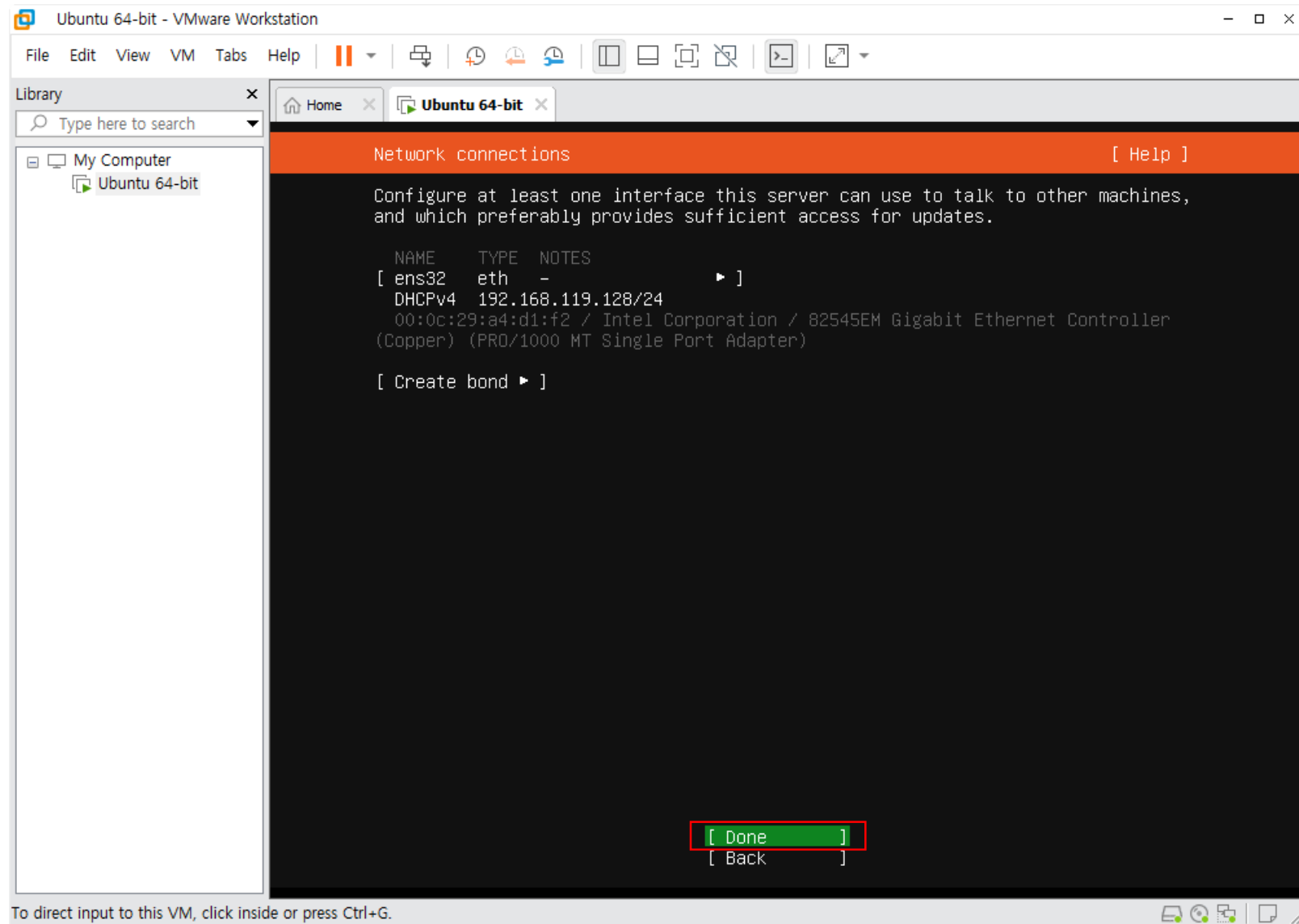
# Ubuntu 설치



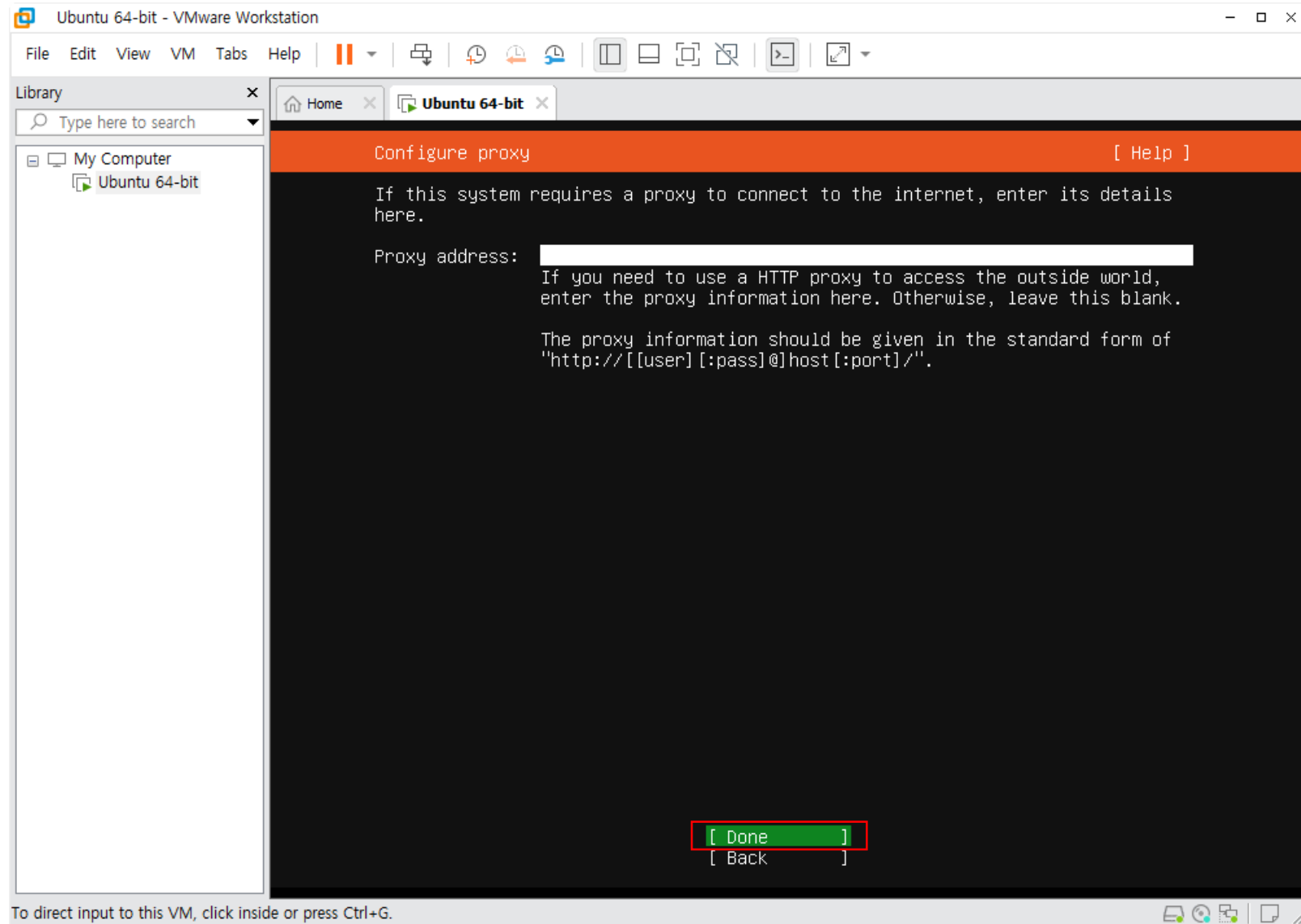
# Ubuntu 설치



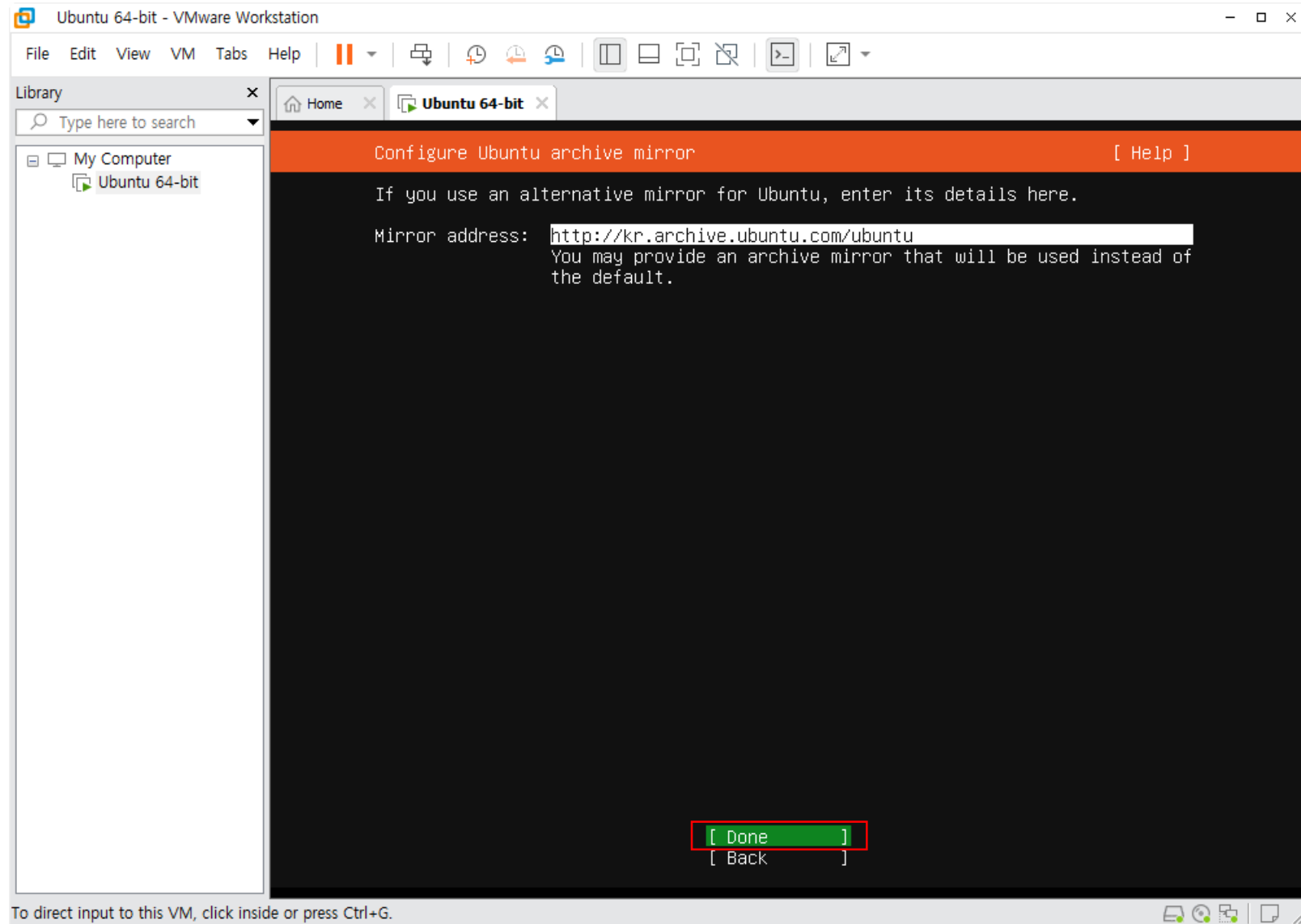
# Ubuntu 설치



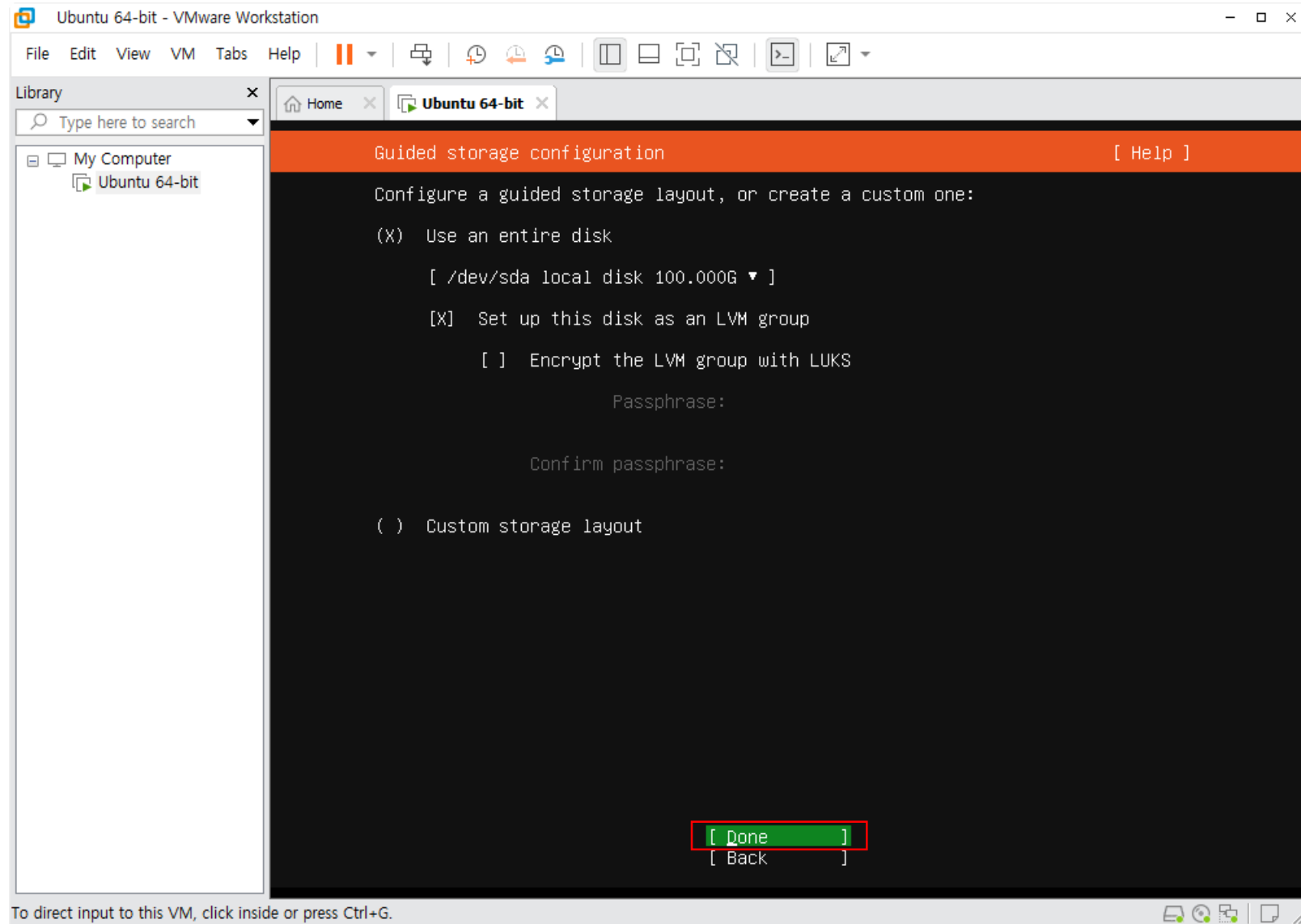
# Ubuntu 설치



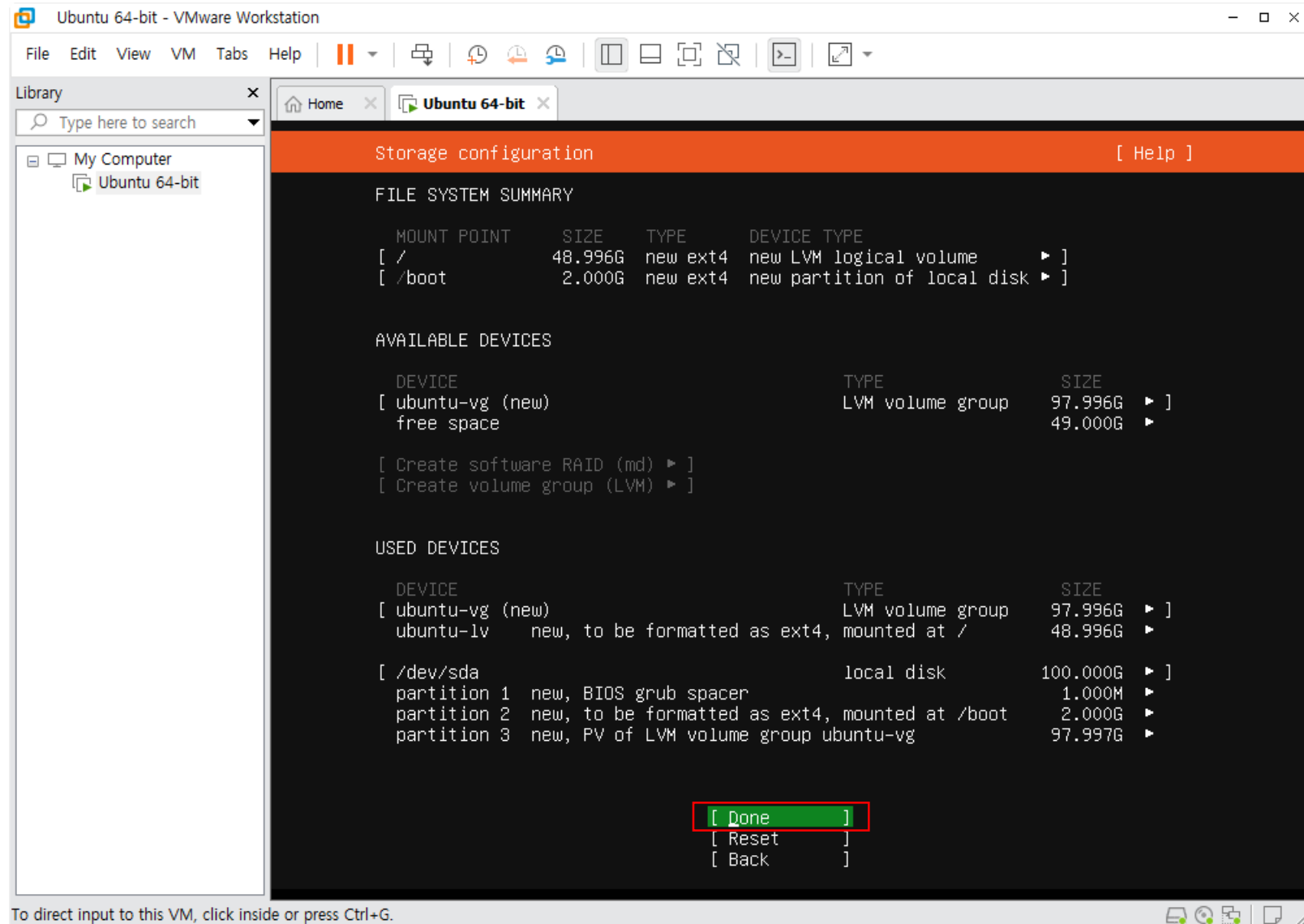
# Ubuntu 설치



# Ubuntu 설치

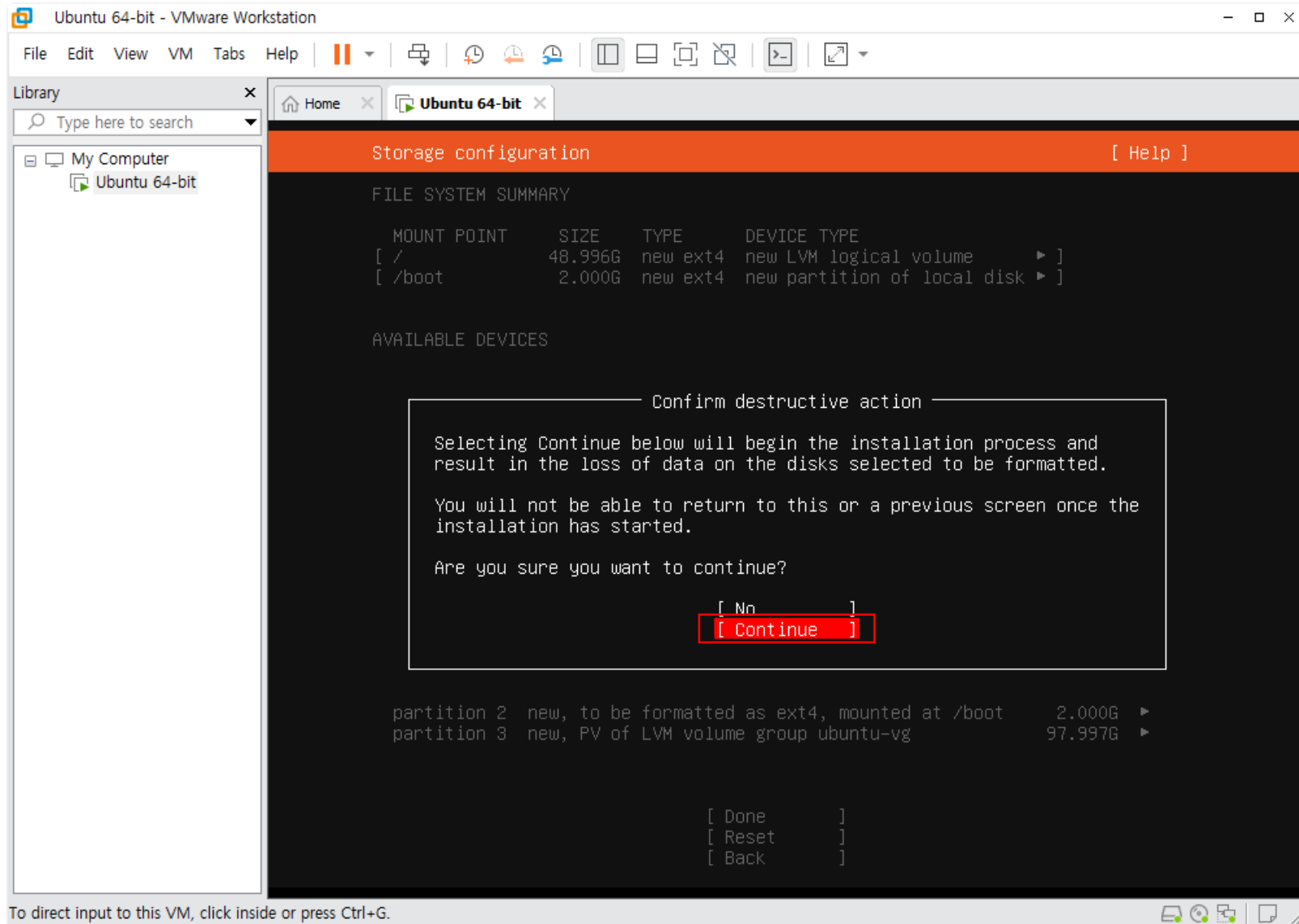


# Ubuntu 설치

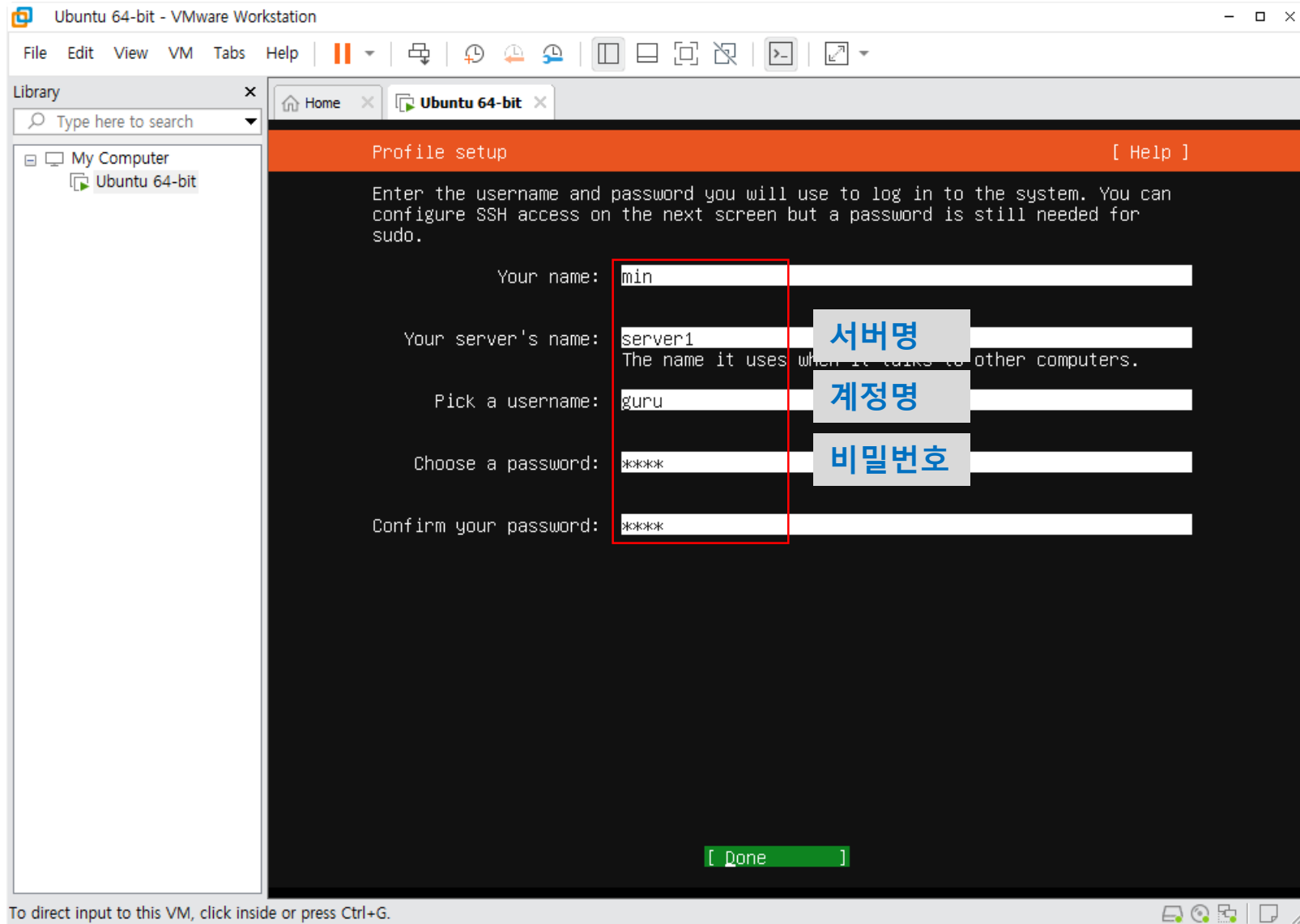




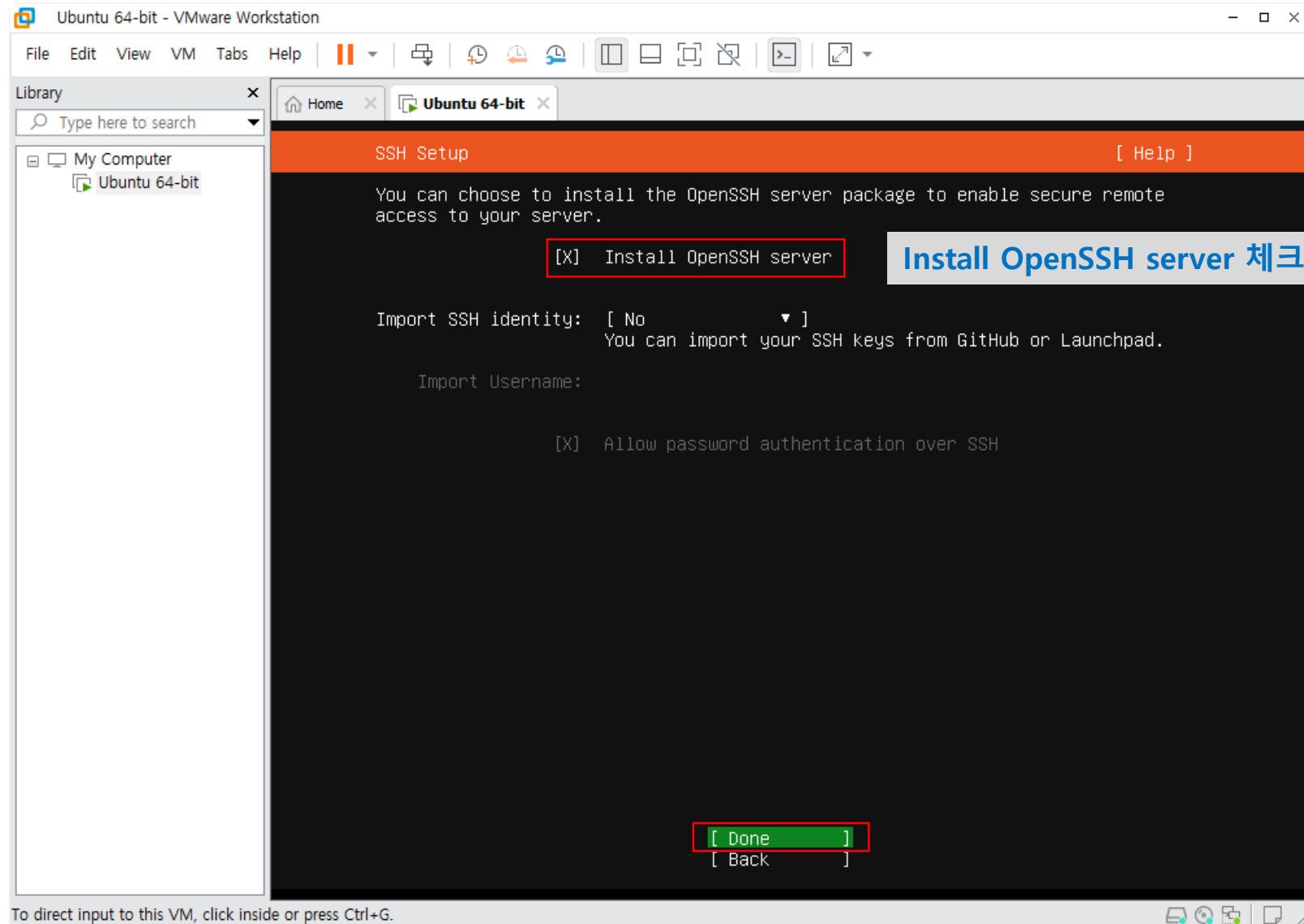
# Ubuntu 설치



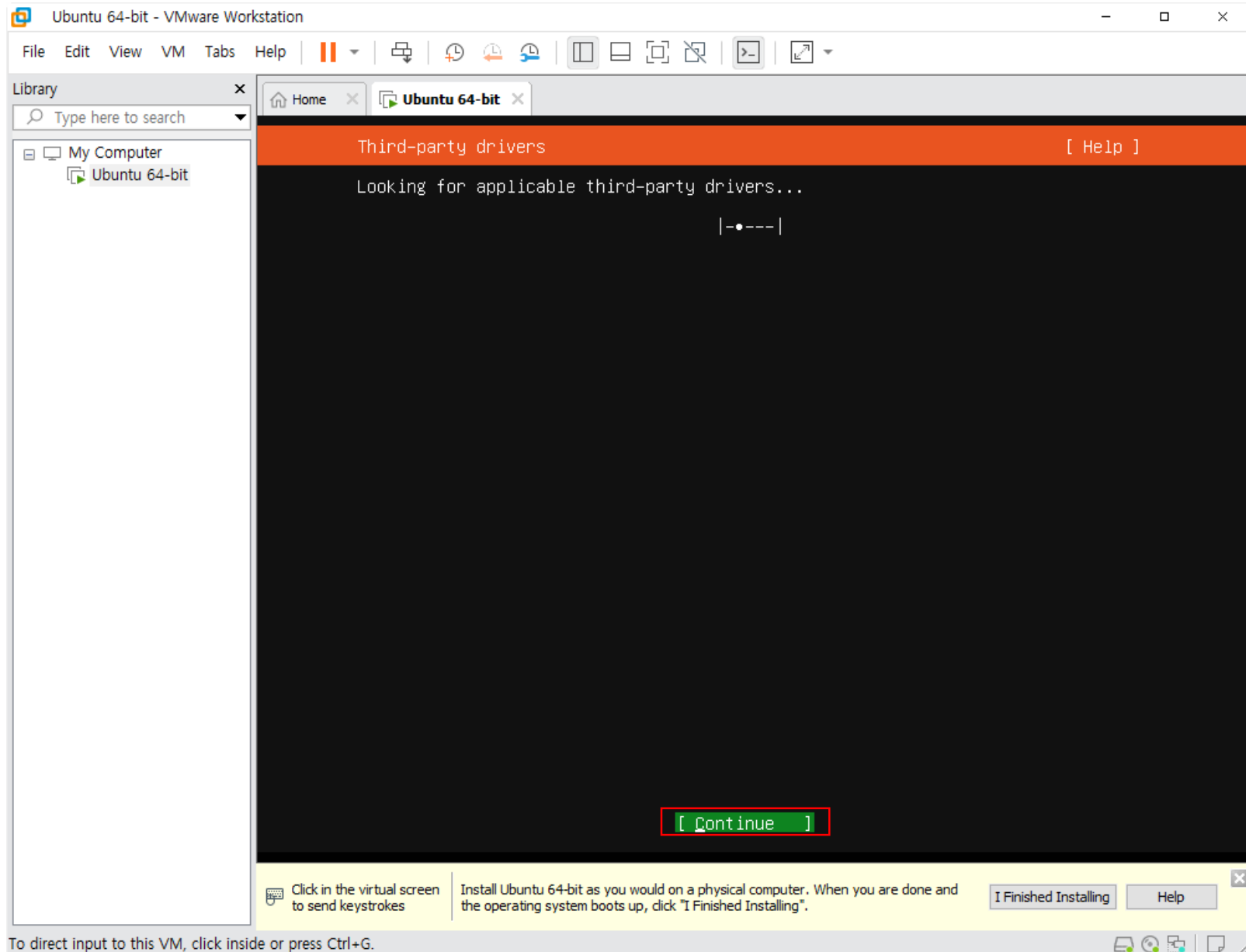
# Ubuntu 설치



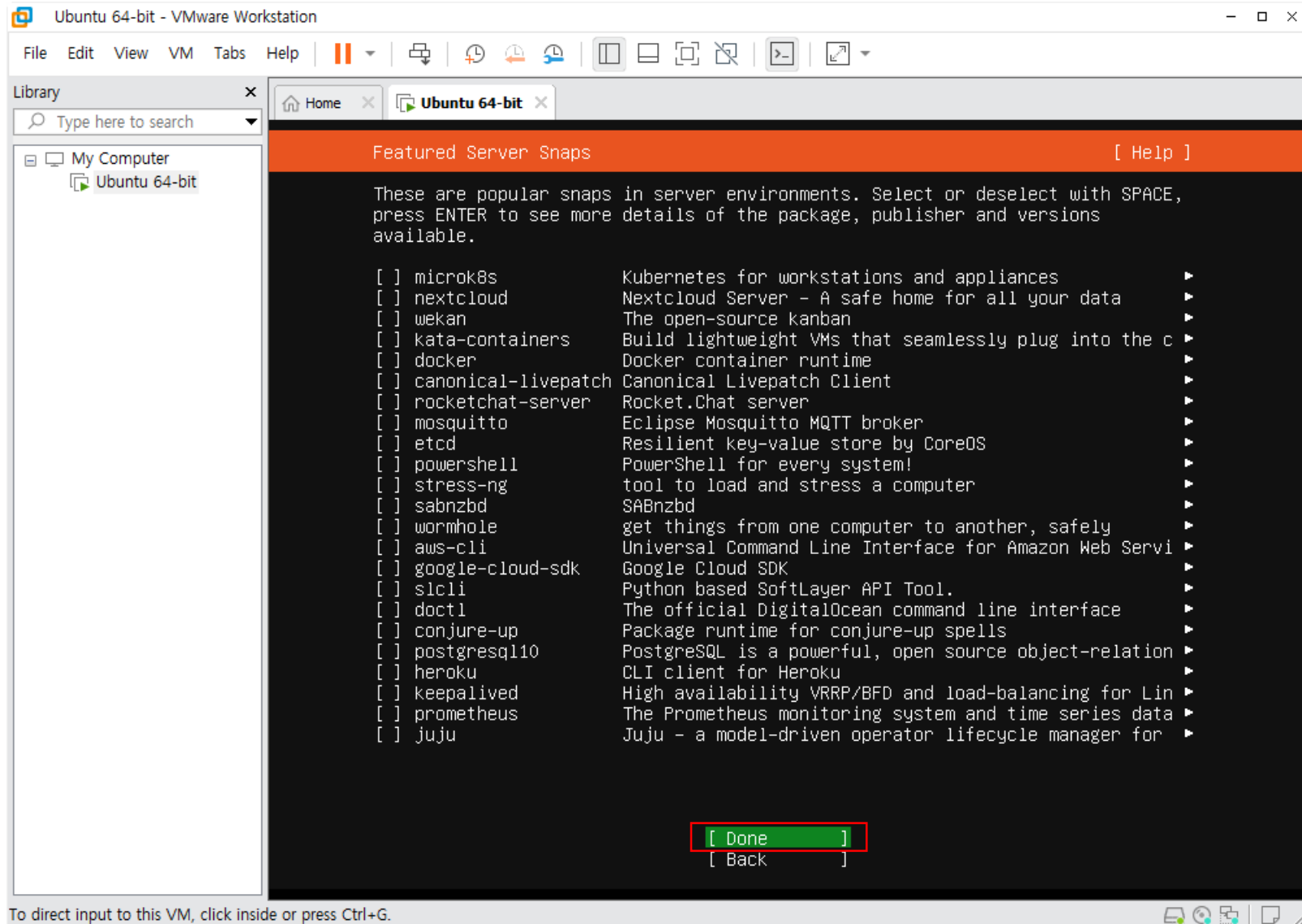
# Ubuntu 설치



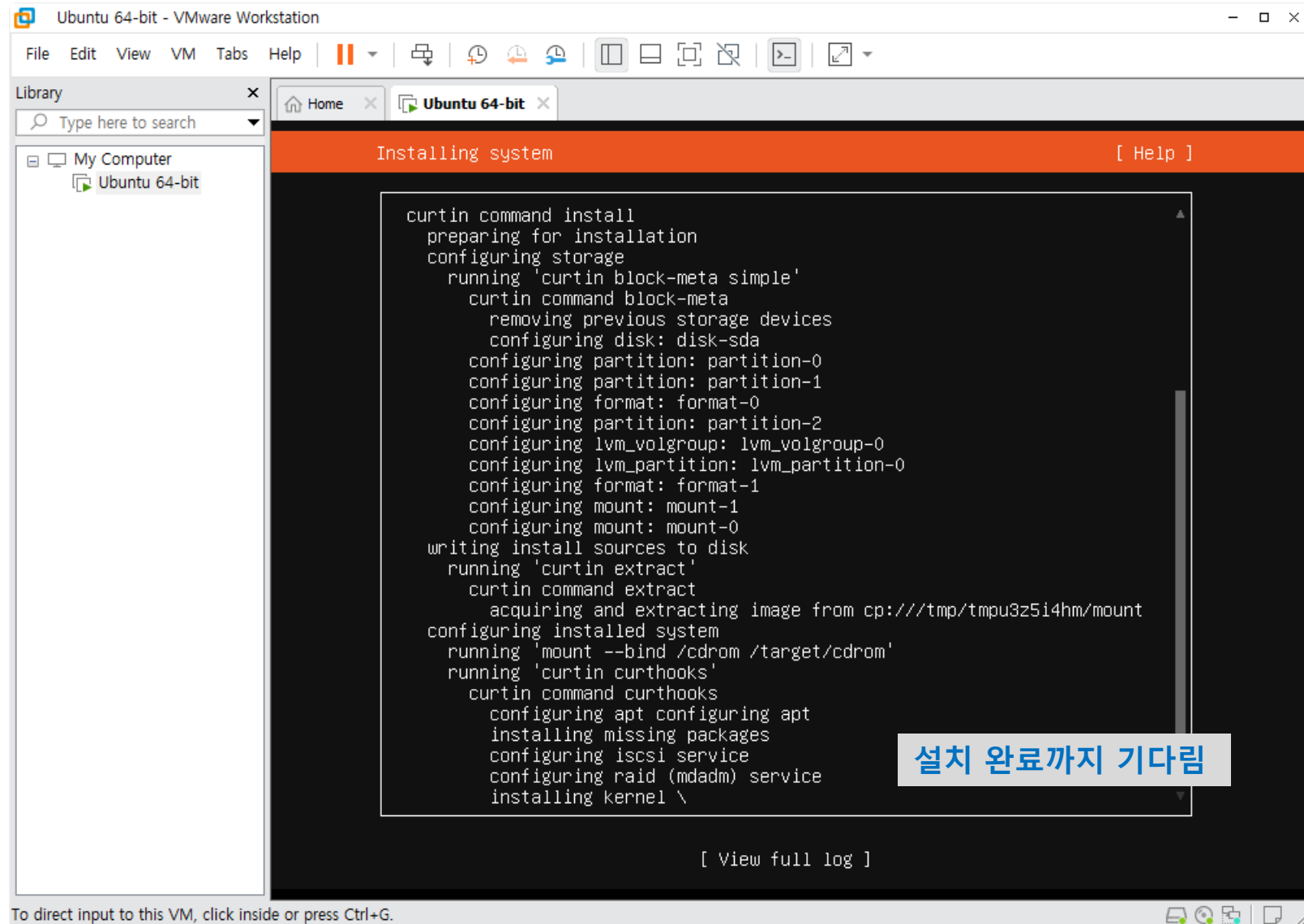
# Ubuntu 설치



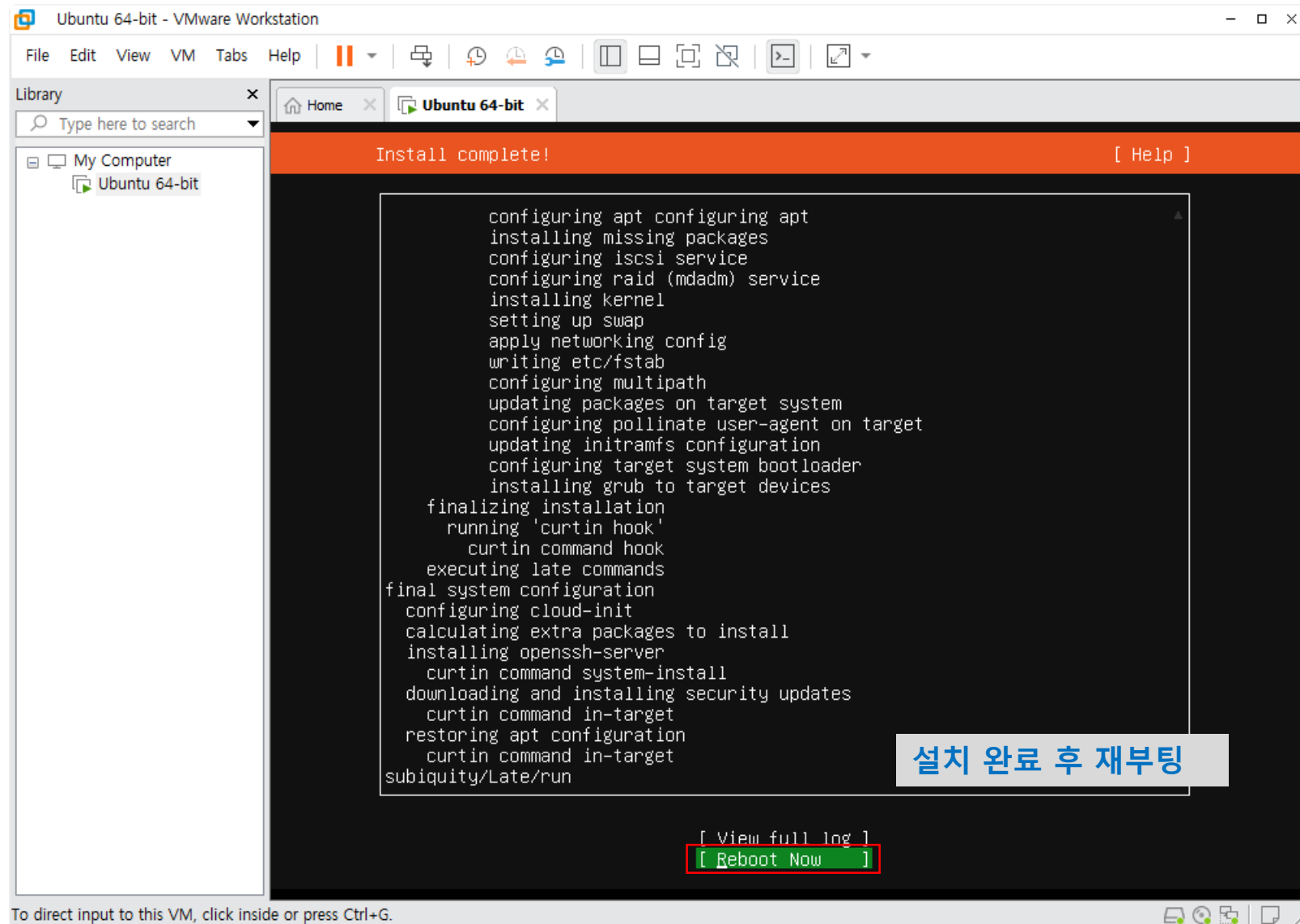
# Ubuntu 설치



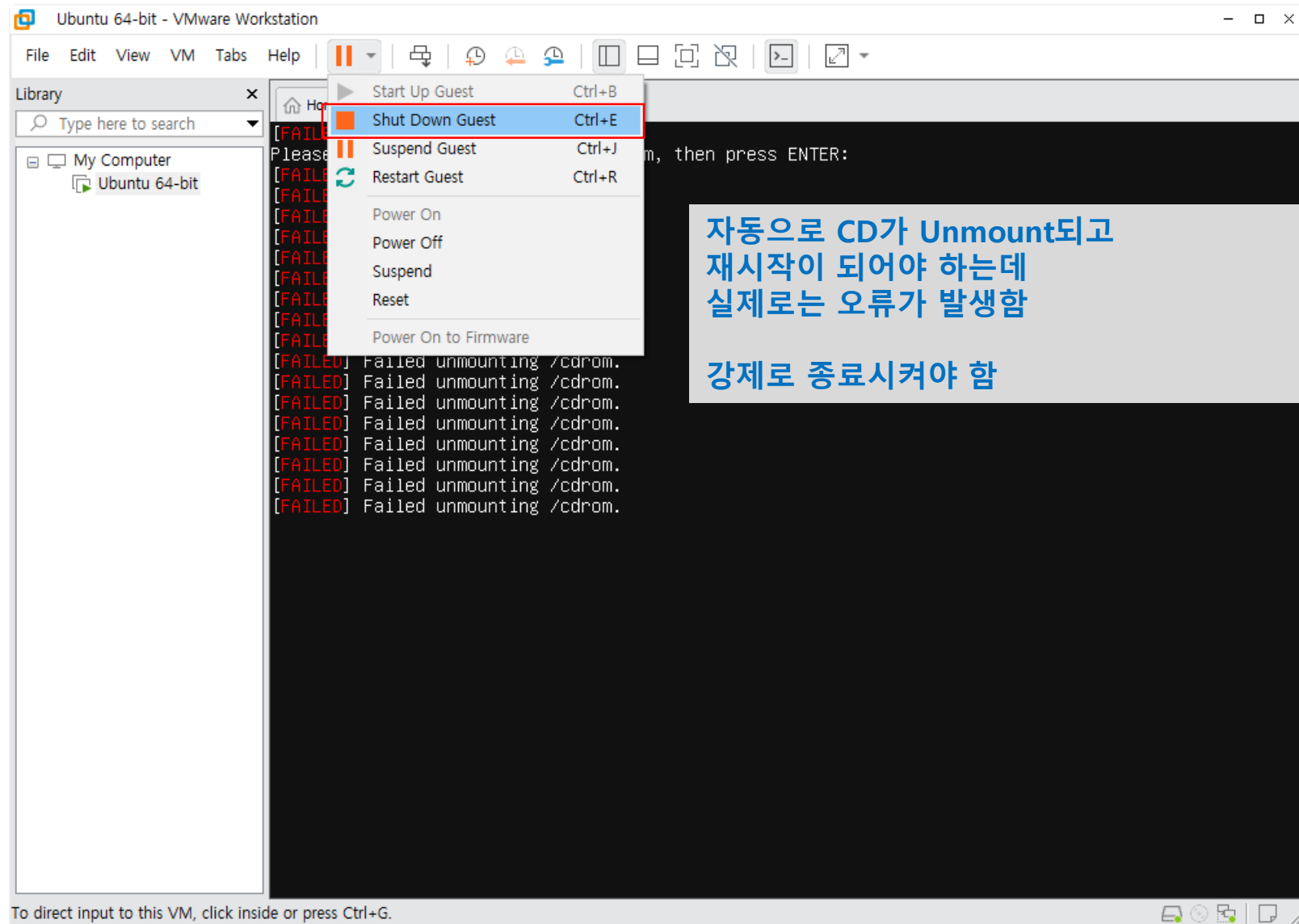
# Ubuntu 설치



# Ubuntu 설치

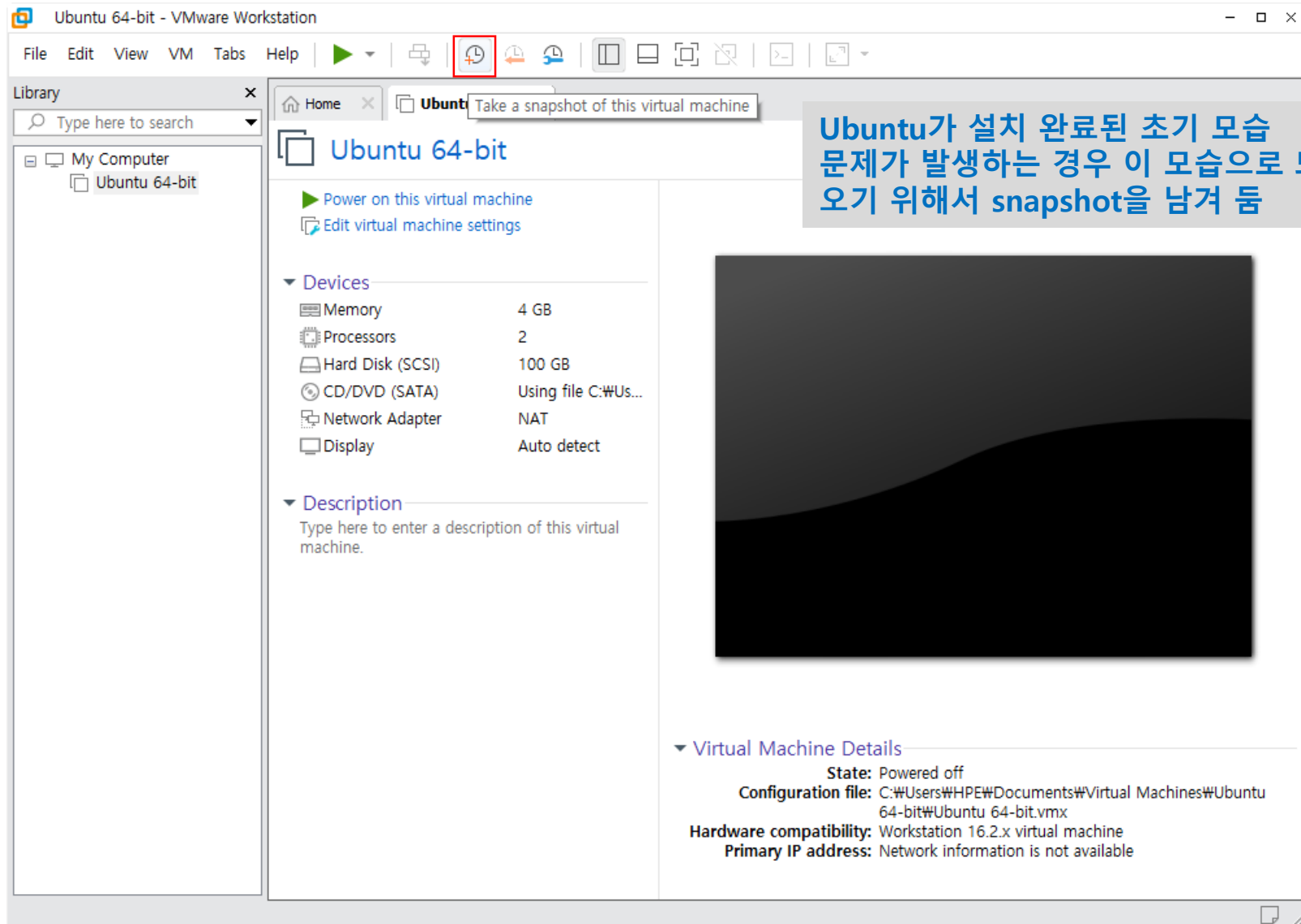


# Ubuntu 설치

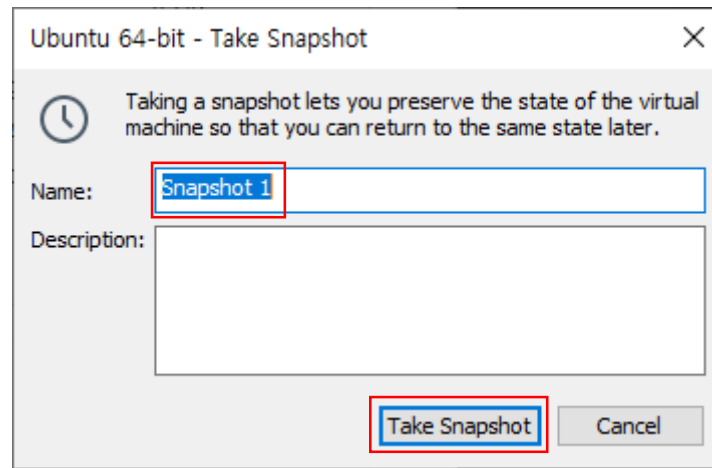




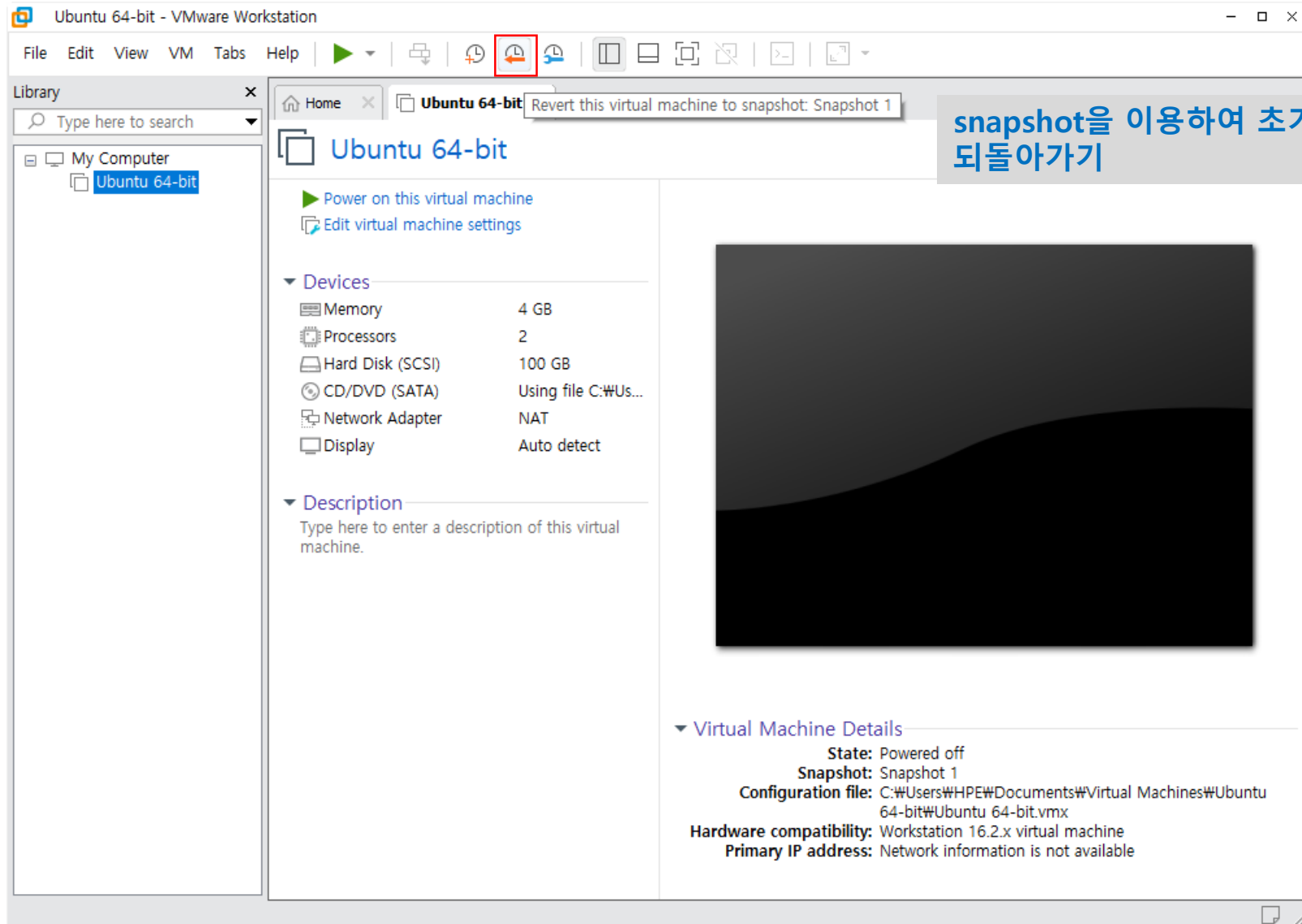
# Ubuntu 설치



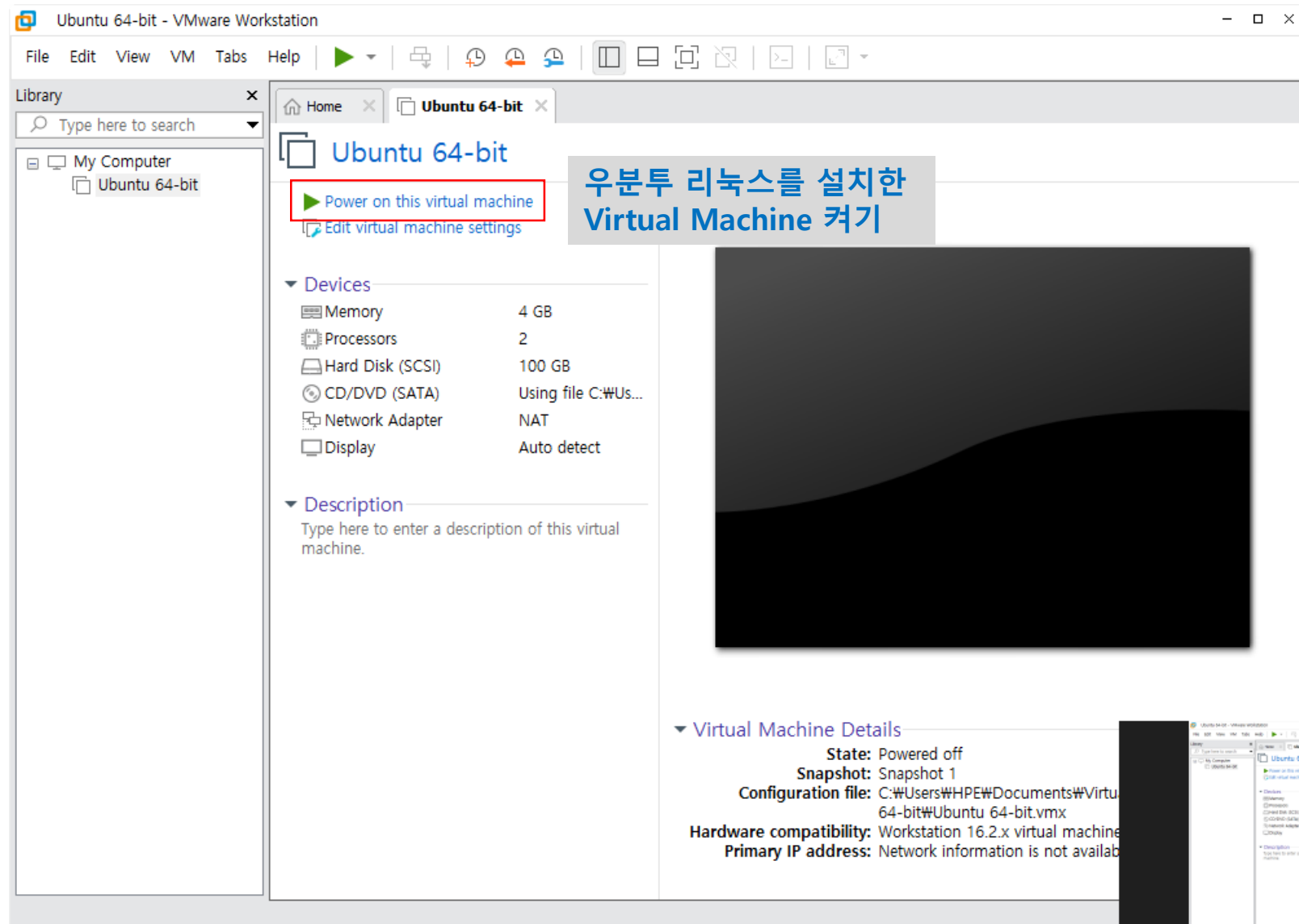
# Ubuntu 설치



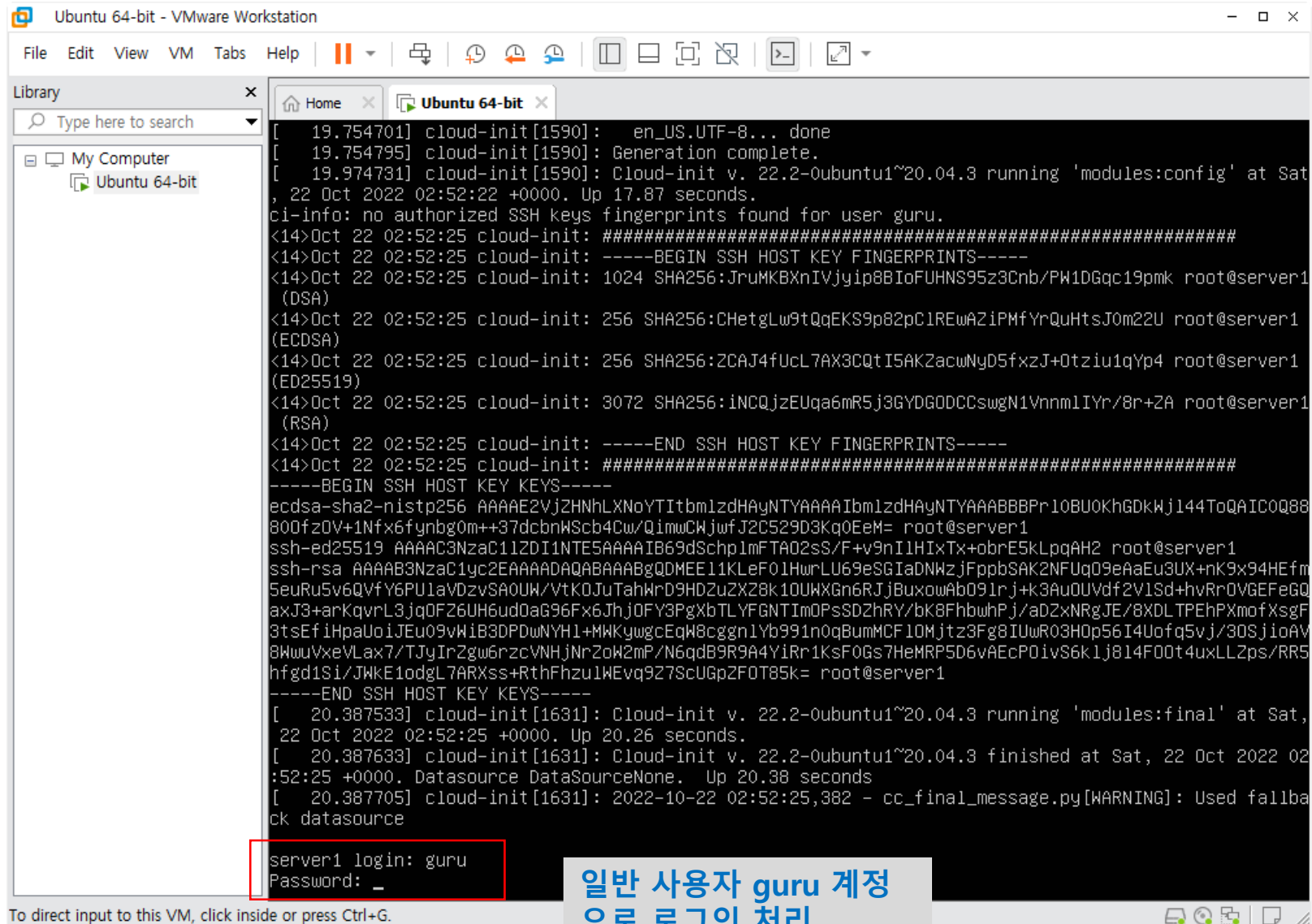
# Ubuntu 설치



# Virtual Machine 켜기



# Virtual Machine 켜기



Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help

Library

Type here to search

My Computer

Ubuntu 64-bit

```
[ 19.754701] cloud-init[1590]: en_US.UTF-8... done
[ 19.754795] cloud-init[1590]: Generation complete.
[ 19.974731] cloud-init[1590]: Cloud-init v. 22.2-0ubuntu1~20.04.3 running 'modules:config' at Sat, 22 Oct 2022 02:52:22 +0000. Up 17.87 seconds.
ci-info: no authorized SSH keys fingerprints found for user guru.
<14>Oct 22 02:52:25 cloud-init: #####
<14>Oct 22 02:52:25 cloud-init: -----BEGIN SSH HOST KEY FINGERPRINTS-----
<14>Oct 22 02:52:25 cloud-init: 1024 SHA256:JruMKBXnIVjyip8BIoFUHNS95z3Cnb/PW1DGqc19pmk root@server1 (DSA)
<14>Oct 22 02:52:25 cloud-init: 256 SHA256:CHetgLw9tQqEKS9p82pC1REwAZiPMfYrQuHtsJ0m22U root@server1 (ECDSA)
<14>Oct 22 02:52:25 cloud-init: 256 SHA256:2CAJ4fUcL7AX3CQtI5AKZacwNyD5fxzJ+0tziuiqYp4 root@server1 (ED25519)
<14>Oct 22 02:52:25 cloud-init: 3072 SHA256:iNCQjzEUqa6mR5j3GYDGDCCswgN1Vnm1IYr/8r+ZA root@server1 (RSA)
<14>Oct 22 02:52:25 cloud-init: -----END SSH HOST KEY FINGERPRINTS-----
<14>Oct 22 02:52:25 cloud-init: #####
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBPr10BU0KhGdKwJ144ToQAIC0Q88
800fz0V+1Nfx6fyngb0m++37dcbnWScb4Cw/QimwCJwJfJ2C529D3Kq0EeM= root@server1
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIB69dSchplmFTA02sS/F+v9nI1HixTx+obrE5kLpqAH2 root@server1
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQGDMEEL1KLeF01HwrLU69eSGIaDNWzjFppbSAK2NFUq09eAaEu3UX+nK9x94Hefm
SeuRu5v6QVfY6PulaVDzvSA0UW/VtK0JuTahWrD9HDZuZ2X28K10UWXGn6RJJBuxowAb091rj+k3Au0Uvdf2V1Sd+hvRr0VGEFeGQ
axJ3+arKqvrL3jq0FZ6UH6ud0aG96Fx6JhJ0FY3PgXbTLYFGNTIm0PsSD2hRY/bK8FhbwhPj/aD2xNRgJE/8XDLTPEhPXmofXsgF
3tsEfiHpaUoiJEu09vWiB3DPDwNYH1+MWKygwcEqW8cggn1Yb991n0qBumMCF10Mjt3Fg8IUwR03H0p56I4Uofq5vj/3DSjioAV
8WuuVxeVLax7/TJyIr2gw6rzcVNHjNrZoW2mP/N6qdB9R9A4YiRr1KsF0Gs7HeMRP5D6vAecP0ivS6klj814F00t4uxLL2ps/RR5
hfgd1Si/JWKElodgL7ARXss+RthFhzu1WEvq927ScUgP2F0T85k= root@server1
-----END SSH HOST KEY KEYS-----
[ 20.387533] cloud-init[1631]: Cloud-init v. 22.2-0ubuntu1~20.04.3 running 'modules:final' at Sat, 22 Oct 2022 02:52:25 +0000. Up 20.26 seconds.
[ 20.387633] cloud-init[1631]: Cloud-init v. 22.2-0ubuntu1~20.04.3 finished at Sat, 22 Oct 2022 02:52:25 +0000. Datasource DataSourceNone. Up 20.38 seconds
[ 20.387705] cloud-init[1631]: 2022-10-22 02:52:25,382 - cc_final_message.py[WARNING]: Used fallback datasource
server1 login: guru
Password: _
```

To direct input to this VM, click inside or press Ctrl+G.

일반 사용자 guru 계정으로 로그인 처리

# Virtual Machine 켜기

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help

Library

Type here to search

My Computer

Ubuntu 64-bit

```
Ubuntu 20.04.5 LTS server1 tty1
server1 login: guru
Password:
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.4.0-131-generic x86_64)

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

System information as of Sat 22 Oct 2022 02:55:11 AM UTC

System load:  0.11           Processes:            246
Usage of /:   12.7% of 47.93GB Users logged in:        0
Memory usage: 9%            IPv4 address for ens32: 192.168.119.128
Swap usage:   0%

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

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

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

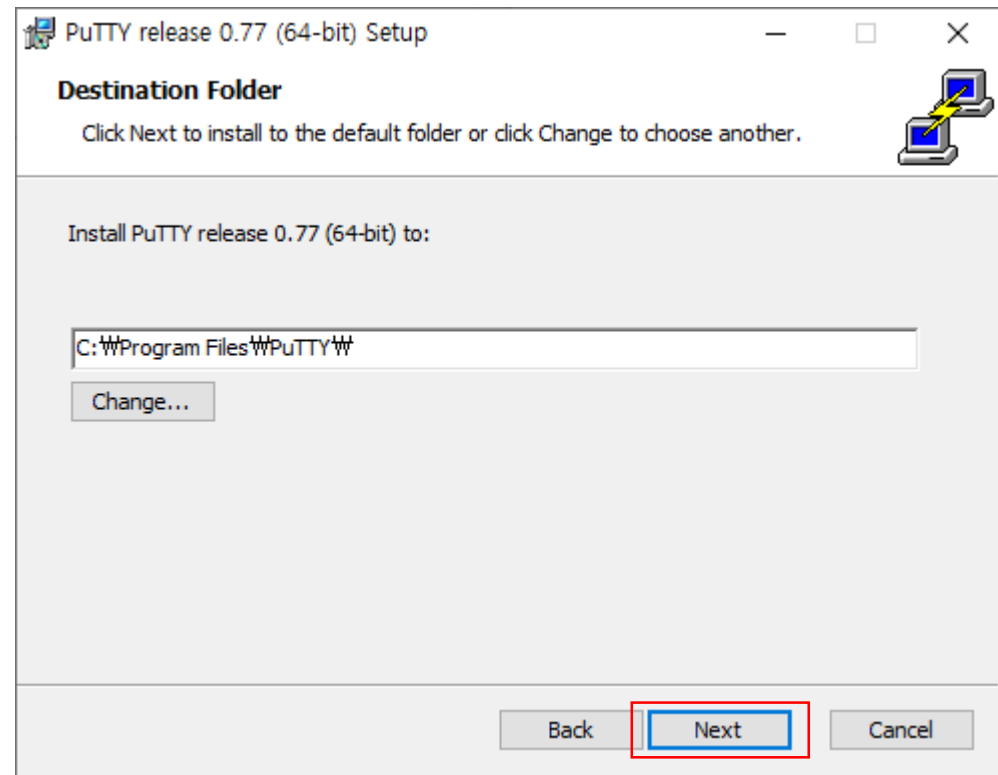
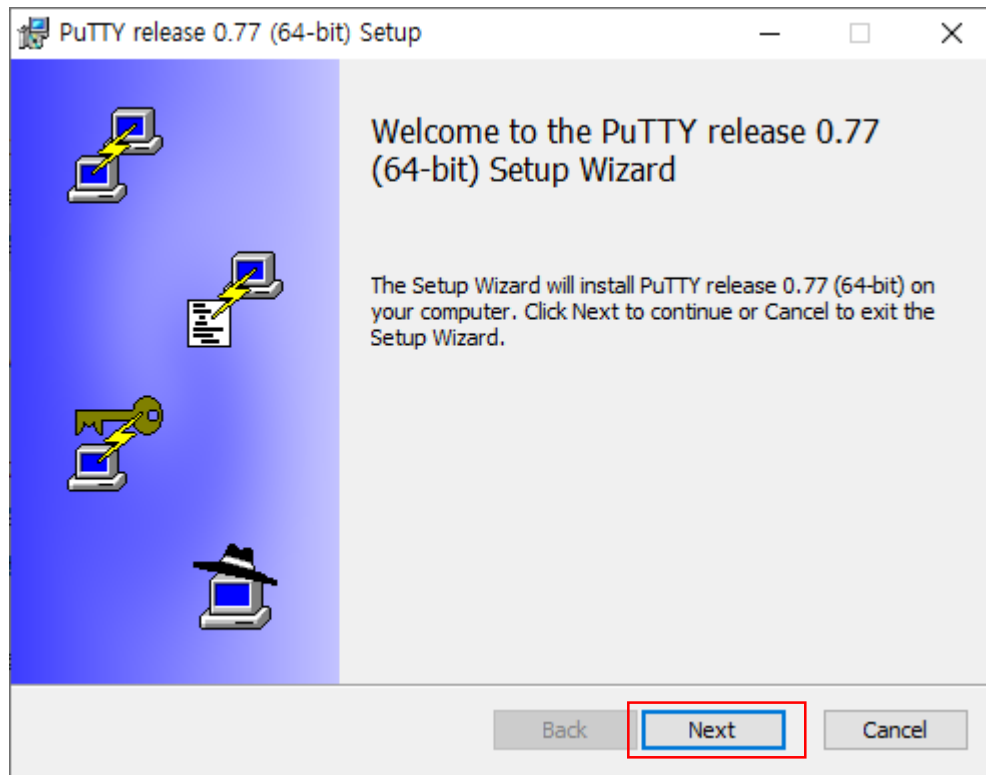
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

guru@server1:~$
```

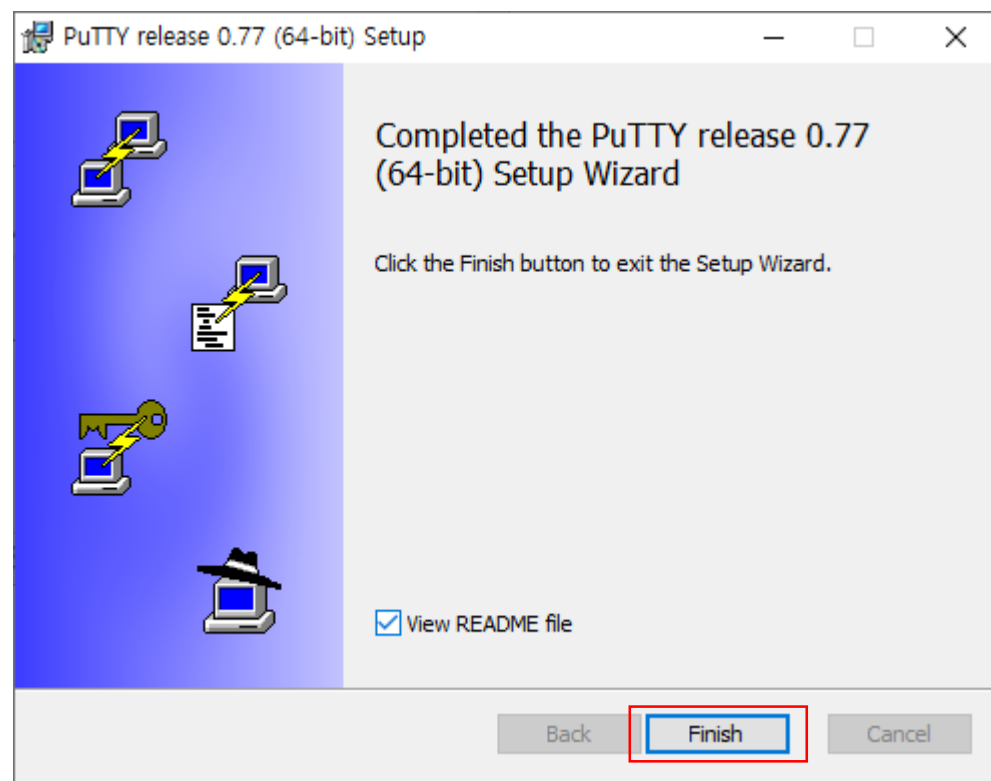
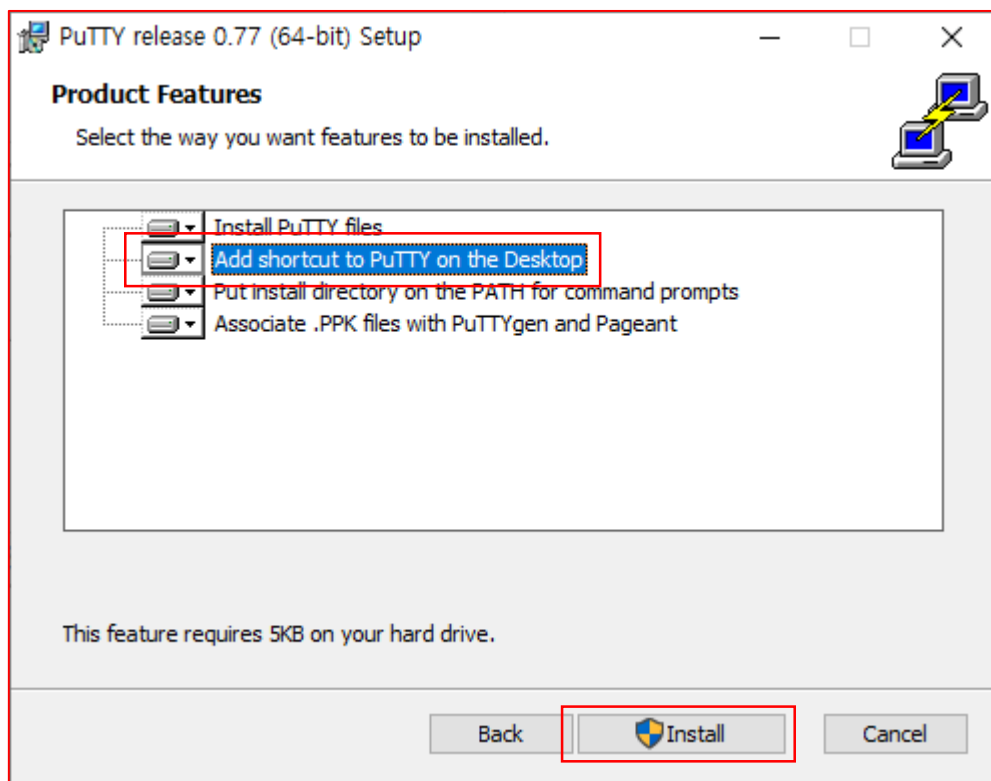
프롬프트(\$) 나오면 성공

To direct input to this VM, click inside or press Ctrl+G.

# PuTTY 설치

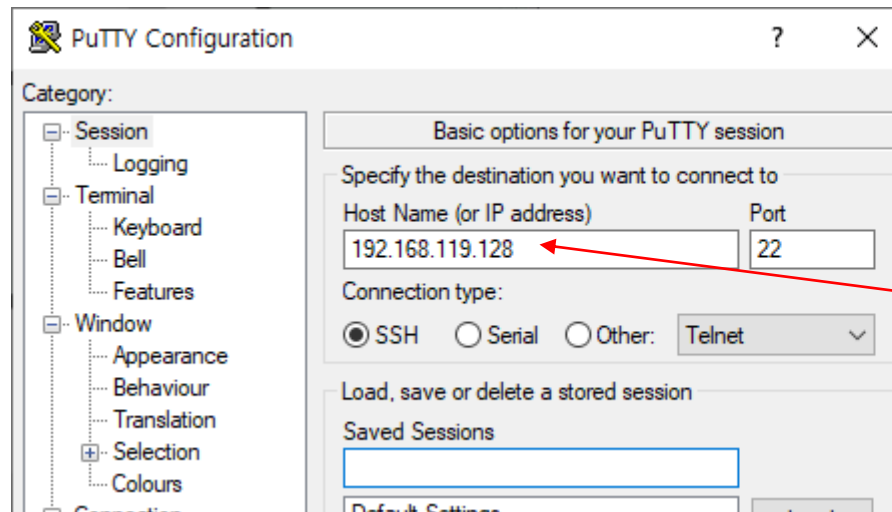


# PuTTY 설치





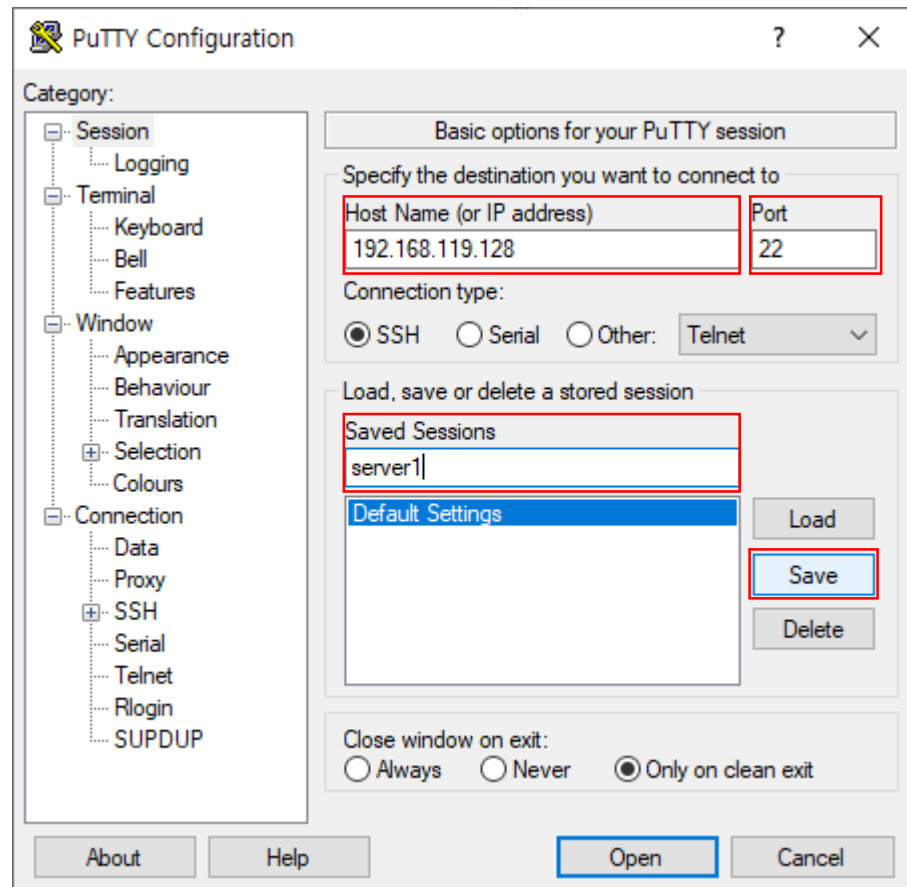
# PuTTY로 우분투 사용하기



```
root@server1:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN g
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel s
    link/ether 00:0c:29:a4:d1:f2 brd ff:ff:ff:ff:ff:ff
    inet 192.168.119.128/24 brd 192.168.119.255 scope global dynamic
        valid_lft 1015sec preferred_lft 1015sec
    inet6 fe80::20c:29ff:fea4:d1f2/64 scope link
        valid_lft forever preferred_lft forever
root@server1:~# _
```

가상 머신의 IP 주소를 알아낸 뒤 PuTTY Configuration에 입력

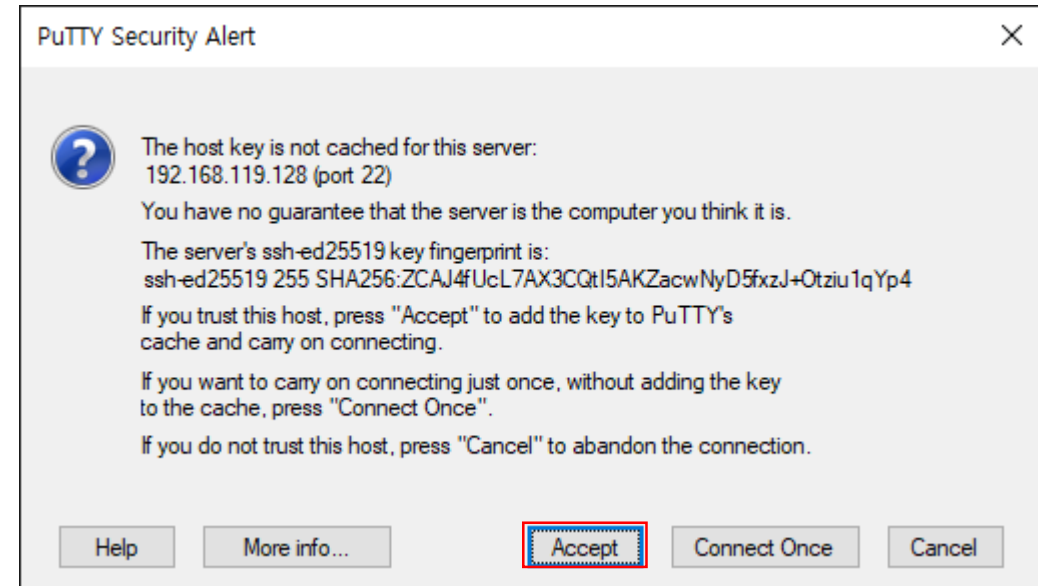
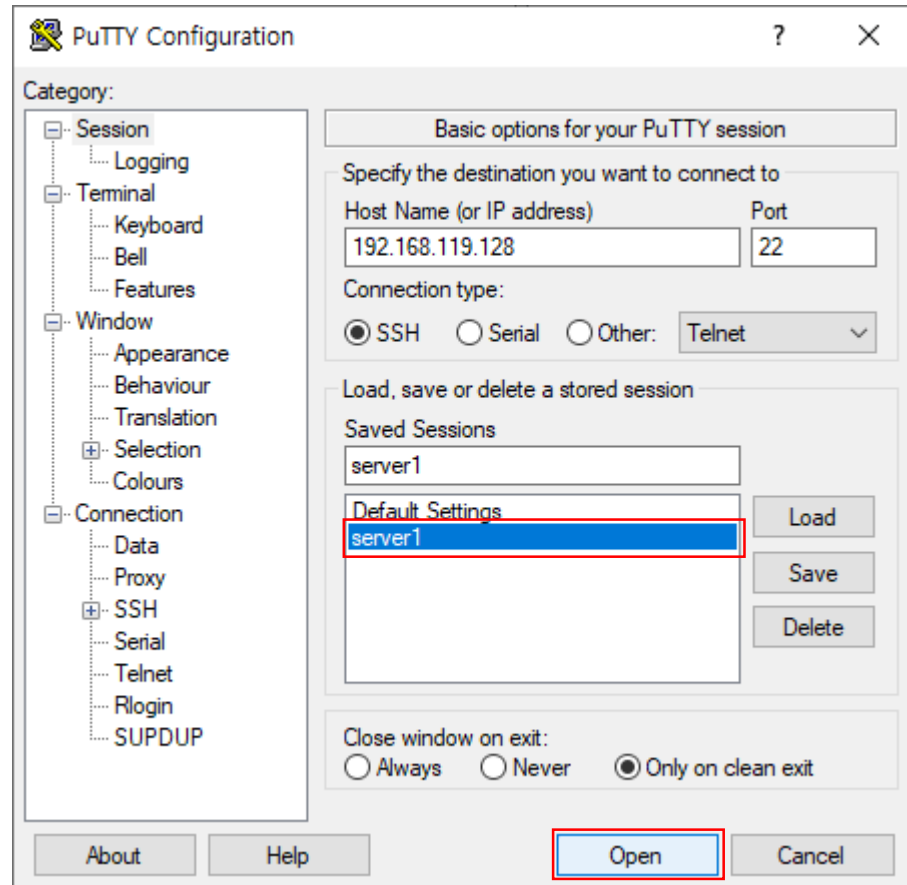
# PuTTY로 우분투 사용하기



SSH 포트번호는 22번

server1으로 연결 정보 저장

# PuTTY로 우분투 사용하기



SSH 키 발급  
최초 한 번은 Accept 해야 함

# PuTT 설정

글꼴 변경

