Ubuntu

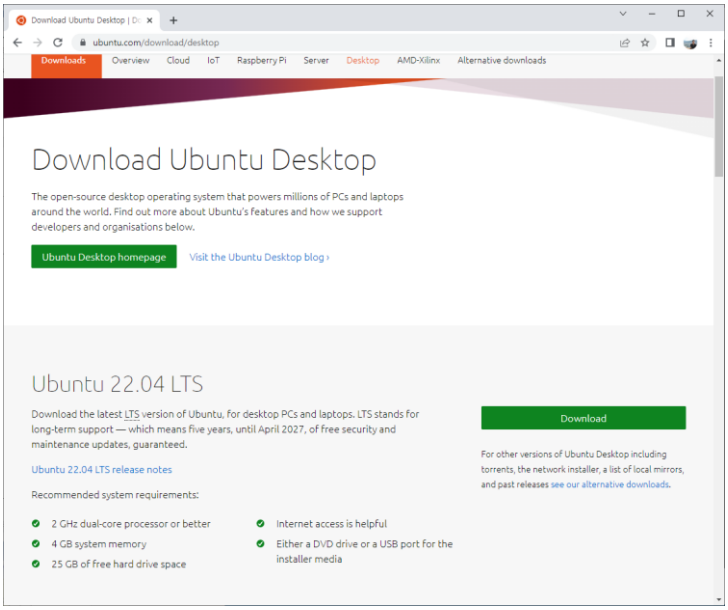
국립금오공과대학교

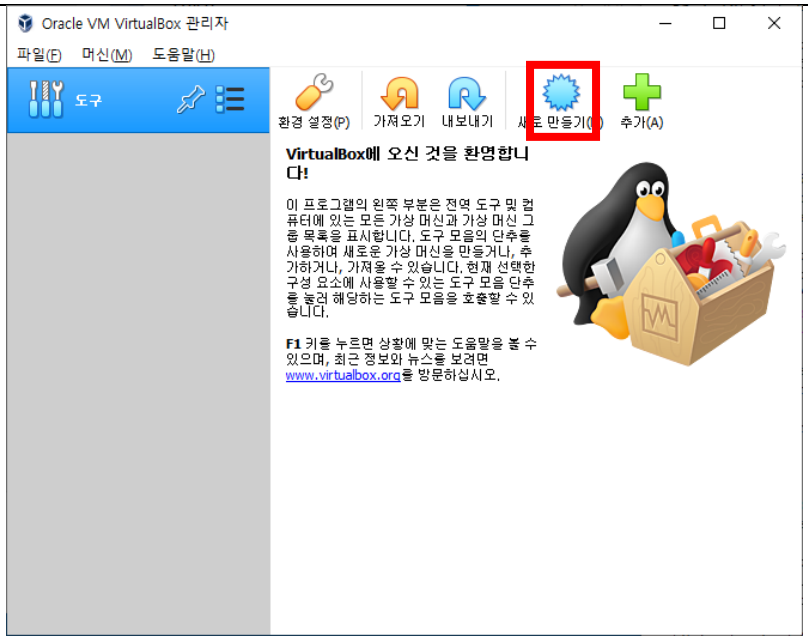
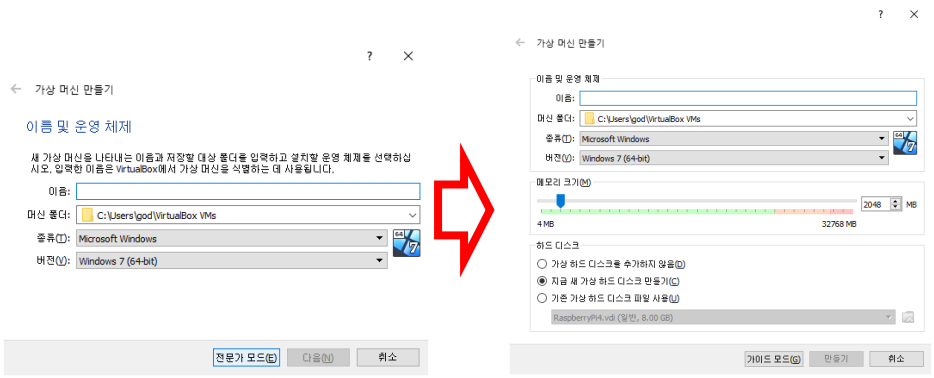
수리빅데이터학과

신 승 혁

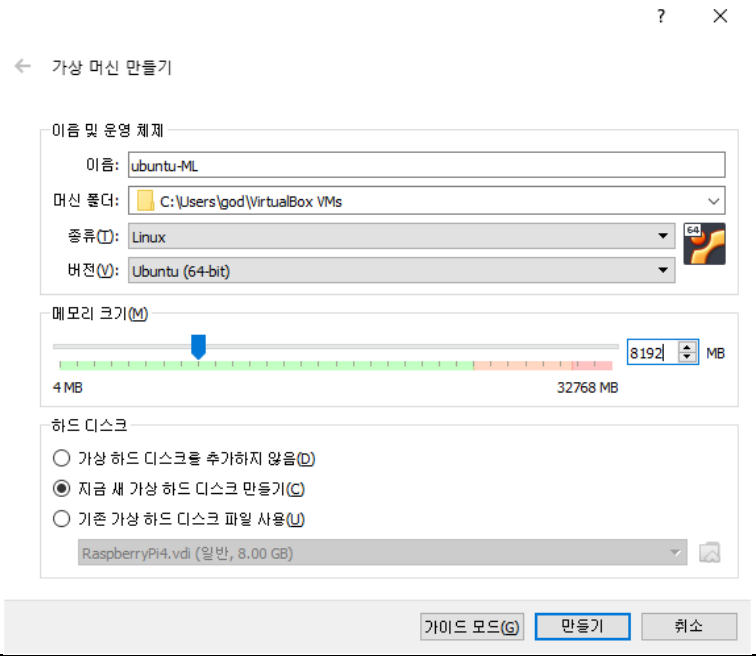
Contents

1 virtual machine 설정

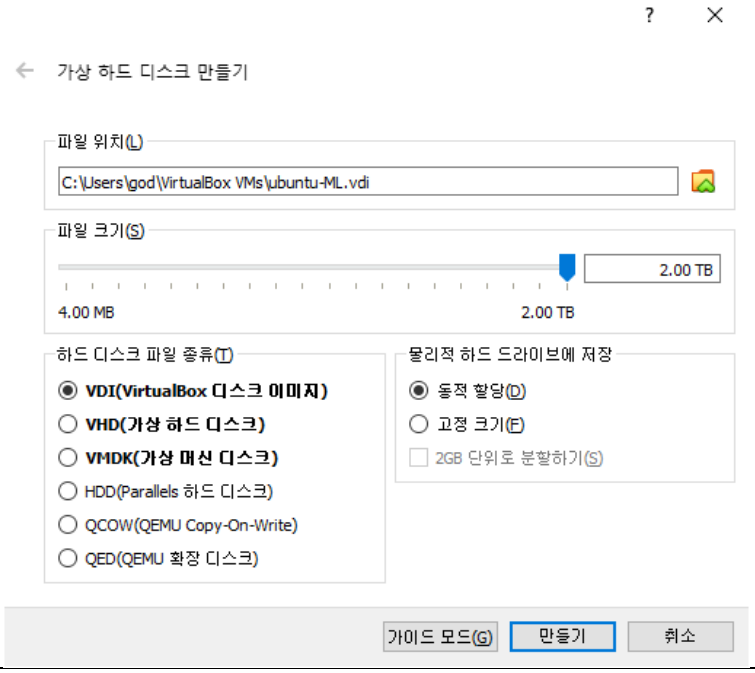
ubuntu download	https://ubuntu.com/download/desktop 
download & install	https://www.virtualbox.org/ 

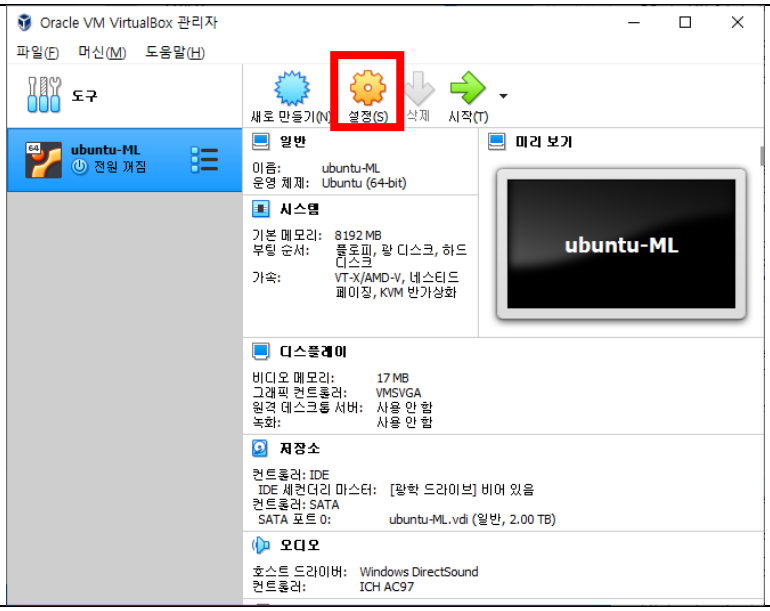
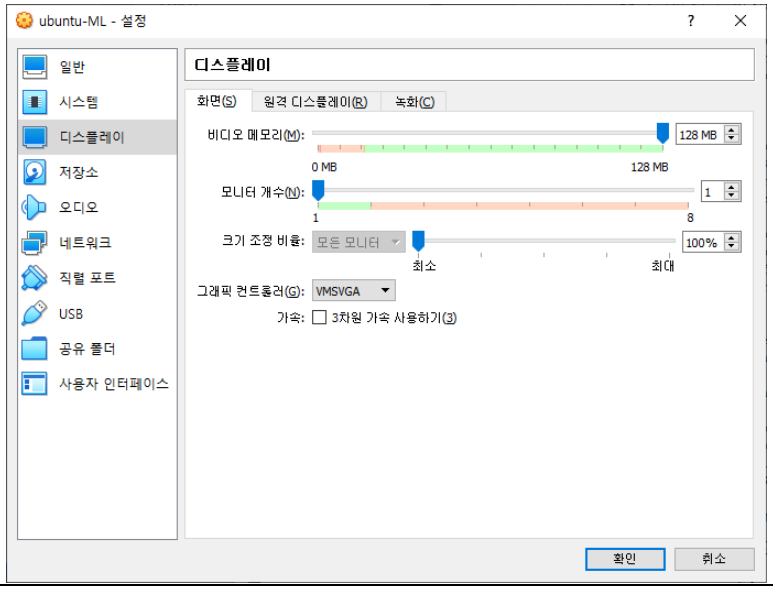
create a machine	
	전문가 모드 선택 

가상머신 이름은 ubuntu-ML 으로 설정함.
가상의 컴퓨터를 만드는 과정으로 메모리 크기는 적당한 크기로 설정함.

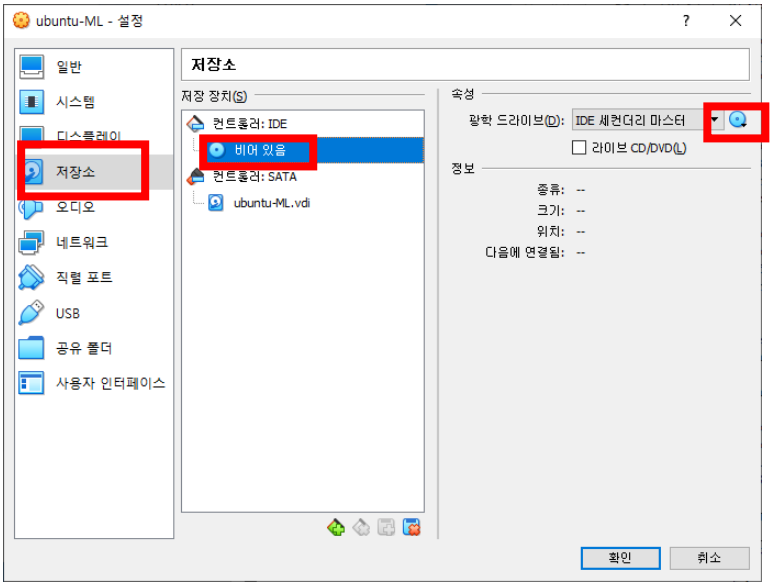


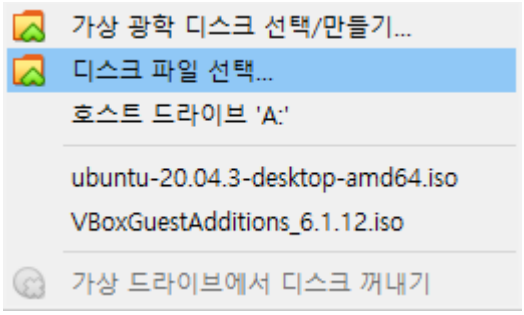
파일크기는 최대로 함

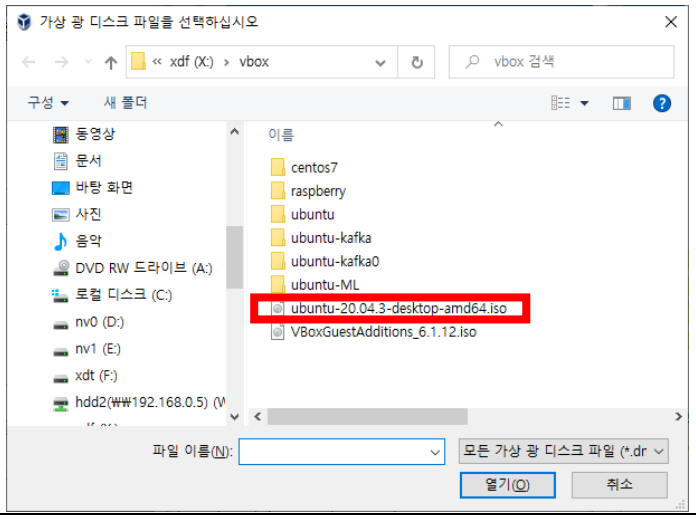


가상컴퓨터 설정	
	비디오 메모리 128MB 최대로 함. 

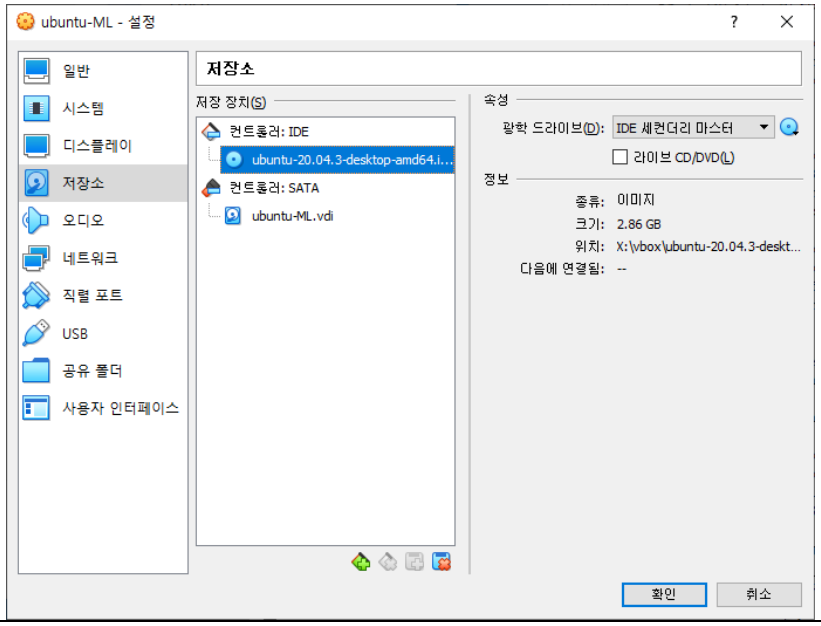
ubuntu 설치 이미지 설정



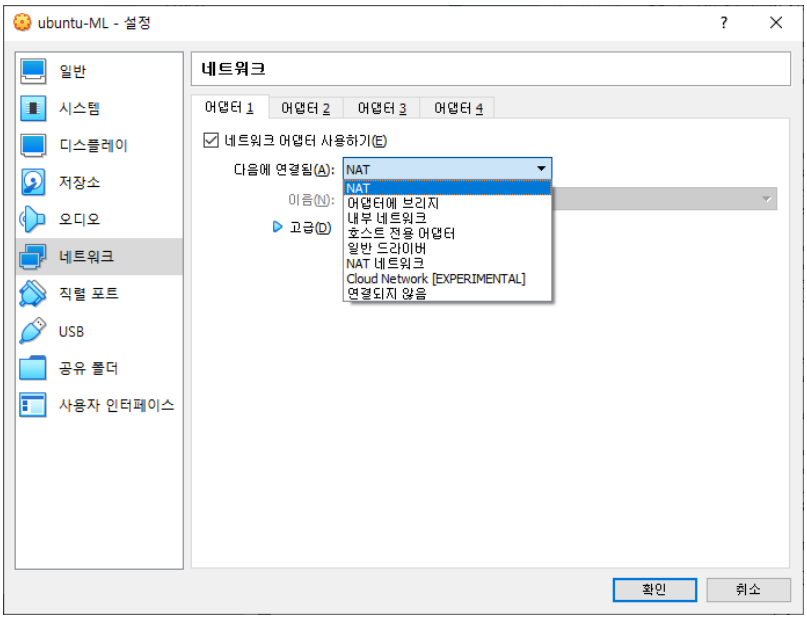


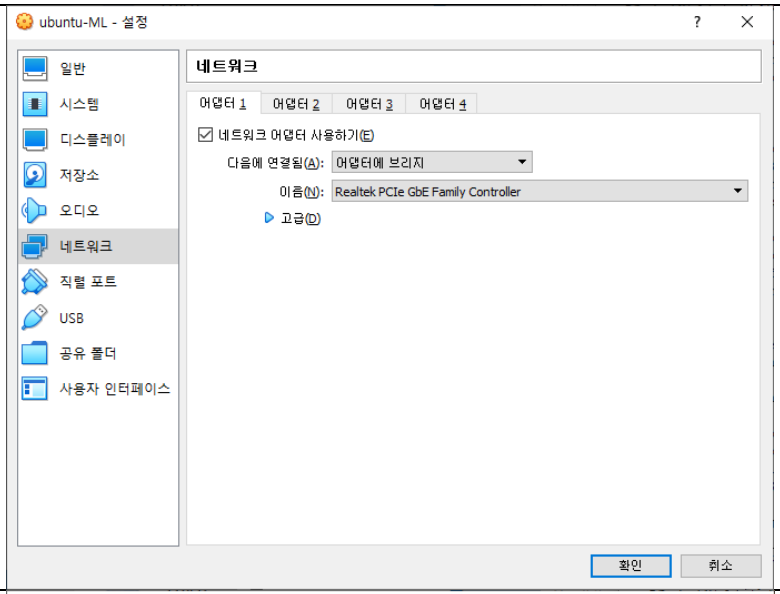


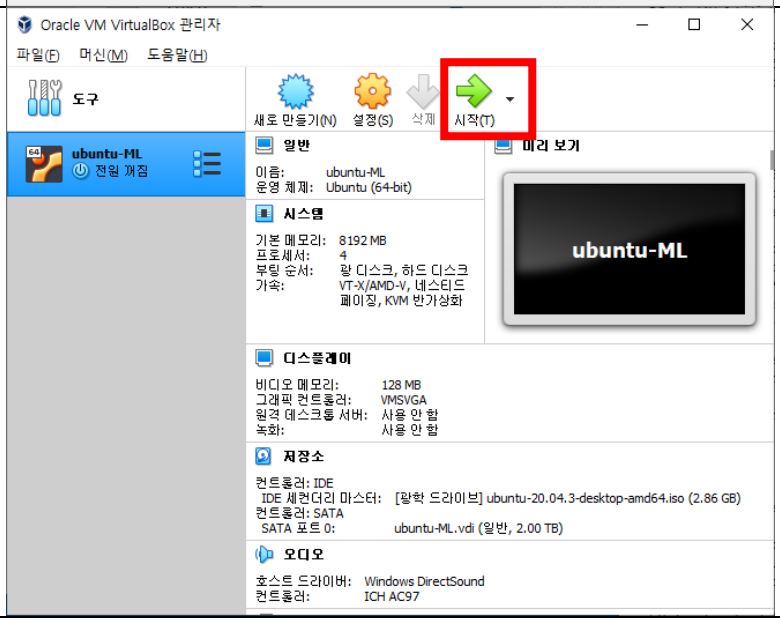
가상 디스크가 설치된 모습



네크워크 어댑터를 "어댑터에 브리지" 로 선택

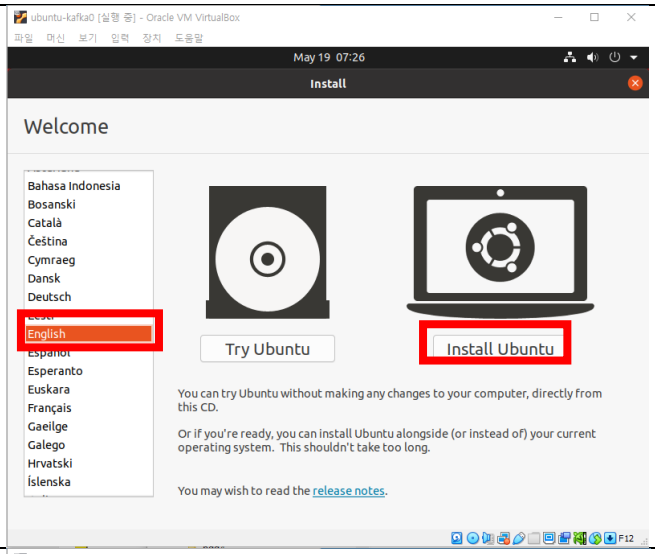
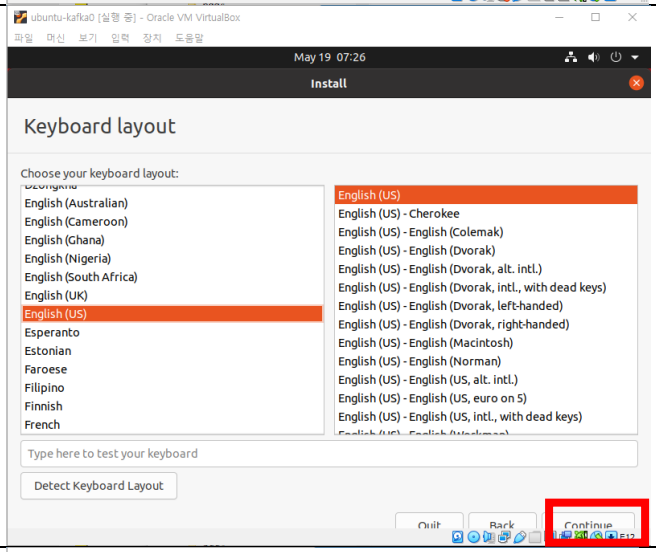
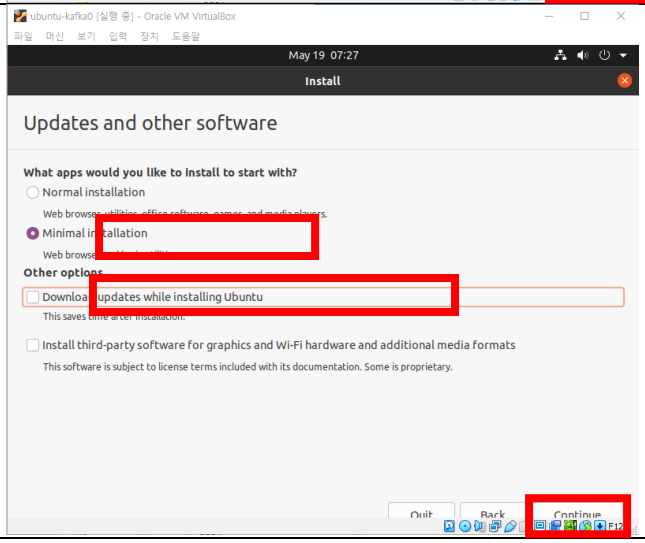


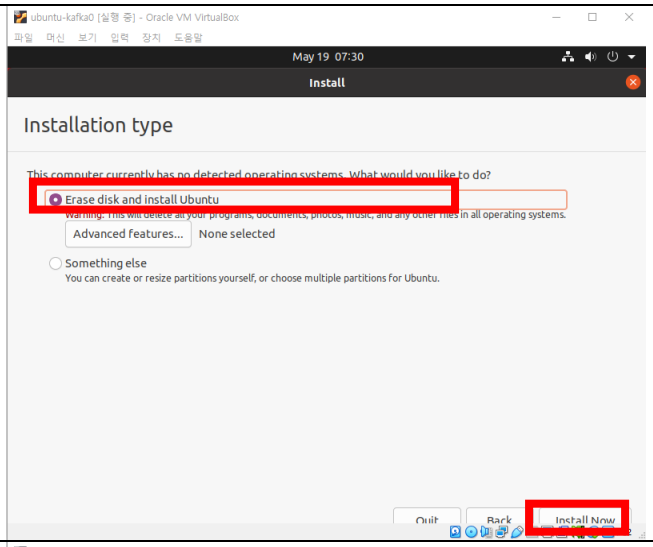

ubuntu-ML - 설정
일반
시스템
디스플레이
저장소
오디오
네트워크
직렬 포트
USB
공유 폴더
사용자 인터페이스
네트워크
어댑터 1
어댑터 2
어댑터 3
어댑터 4
네트워크 어댑터 사용하기(E)
다음에 연결됨(A): 어댑터에 브리지
이름(N): Realtek PCIe GbE Family Controller
고급(D)
확인
취소

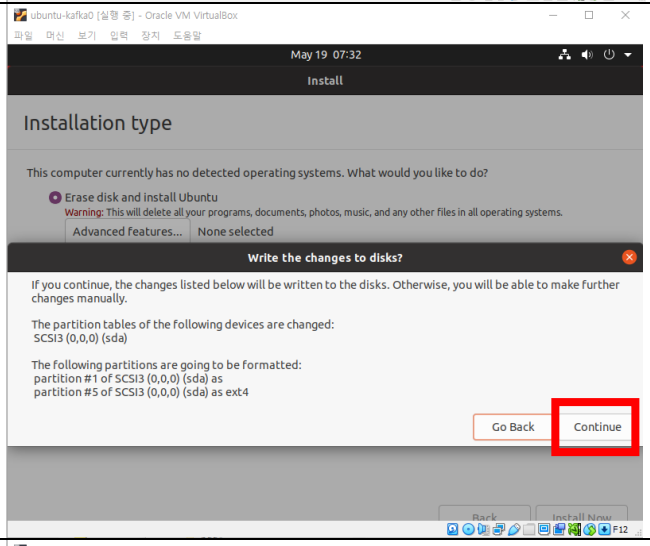

Oracle VM VirtualBox 관리자
파일(F) 머신(M) 도움말(H)
도구
새로 만들기(N)
설정(S)
삭제
시작(T)
ubuntu-ML
전원 꺼짐
일반
이름: ubuntu-ML
운영 체제: Ubuntu (64-bit)
시스템
기본 메모리: 8192 MB
프로세서: 4
부팅 순서: 광 디스크, 하드 디스크
가속: VT-X/AMD-V, 네스티드 페이징, KVM 반가상화
미리 보기
ubuntu-ML
디스플레이
비디오 메모리: 128 MB
그래픽 컨트롤러: VMSVGA
원격 데스크톱 서버: 사용 안 함
녹화: 사용 안 함
저장소
컨트롤러: IDE
IDE 세컨더리 마스터: [광학 드라이브] ubuntu-20.04.3-desktop-amd64.iso (2.86 GB)
컨트롤러: SATA
SATA 포트 0: ubuntu-ML.vdi (일반, 2.00 TB)
오디오
호스트 드라이버: Windows DirectSound
컨트롤러: ICH AC97

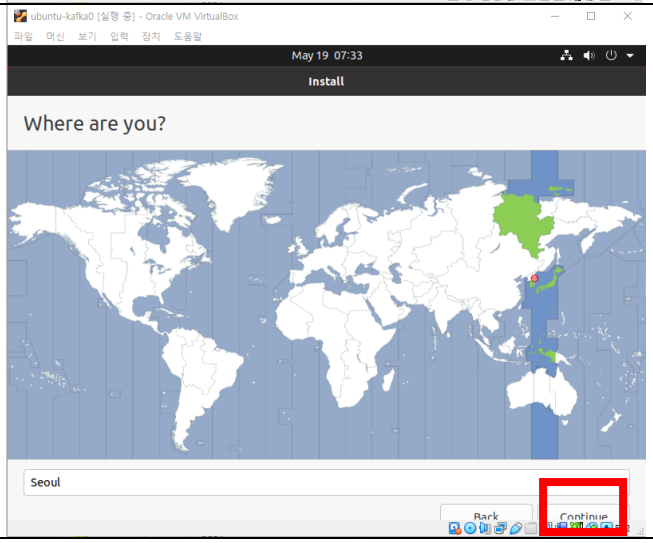
2 ubuntu install

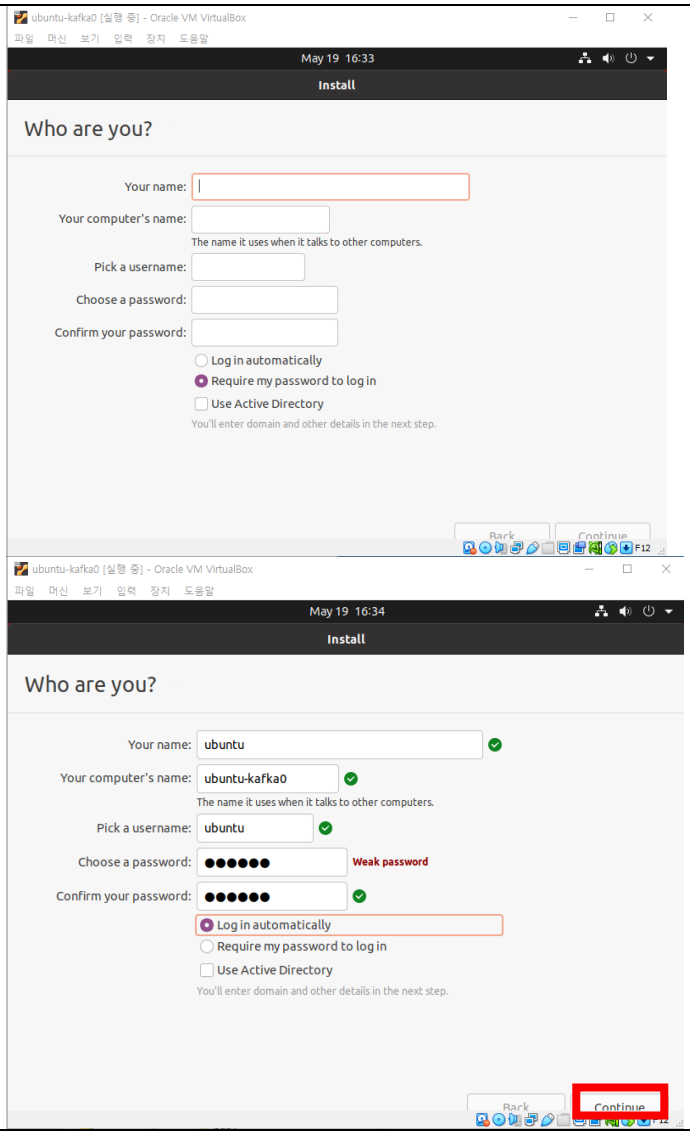
2.1 install

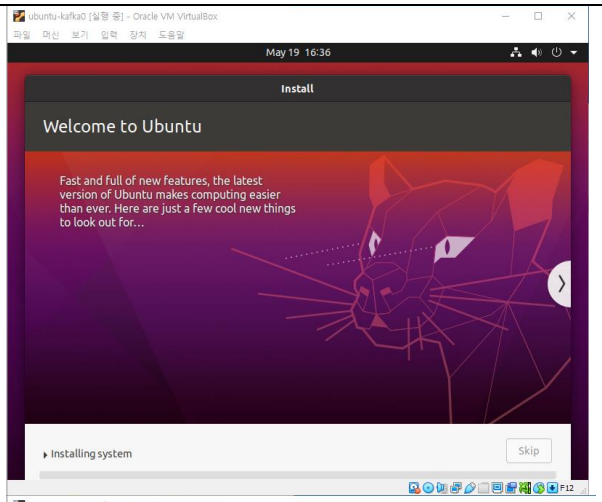
Install		English recommanded
Select Keyboard Layout		
		

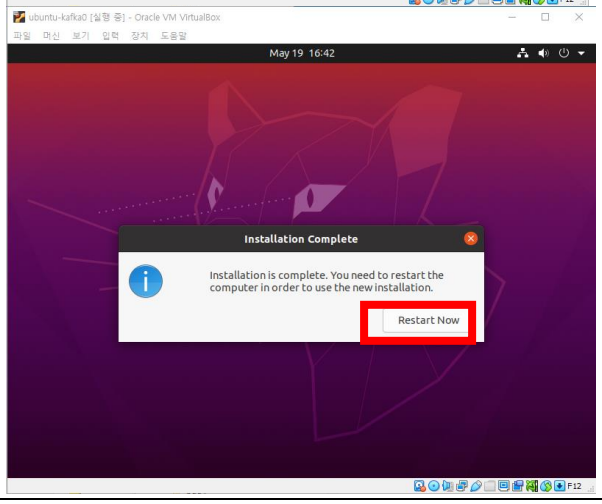

ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
May 19 07:30
Install
Installation type
This computer currently has no detected operating systems. What would you like to do?
Erase disk and install Ubuntu
Advanced features...
None selected
Something else
You can create or resize partitions yourself, or choose multiple partitions for Ubuntu.
Quit
Back
Install Now

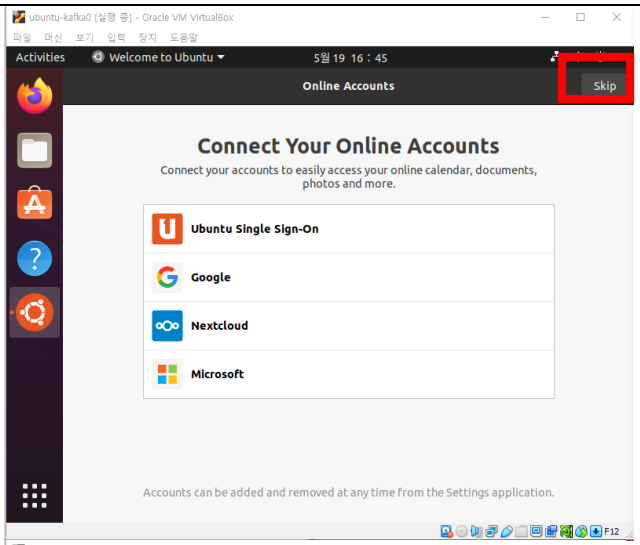

ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
May 19 07:32
Install
Installation type
This computer currently has no detected operating systems. What would you like to do?
Erase disk and install Ubuntu
Warning: This will delete all your programs, documents, photos, music, and any other files in all operating systems.
Advanced features...
None selected
Write the changes to disks?
If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.
The partition tables of the following devices are changed:
SCSI3 (0,0,0) (sda)
The following partitions are going to be formatted:
partition #1 of SCSI3 (0,0,0) (sda) as
partition #5 of SCSI3 (0,0,0) (sda) as ext4
Go Back
Continue

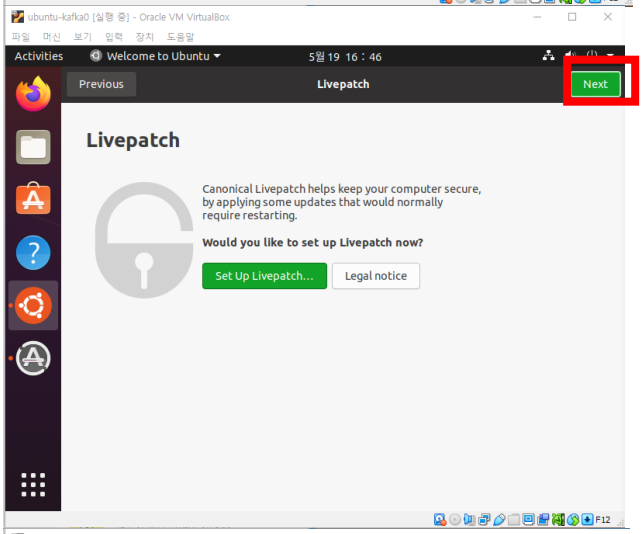

ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
May 19 07:33
Install
Where are you?
Seoul
Back
Continue

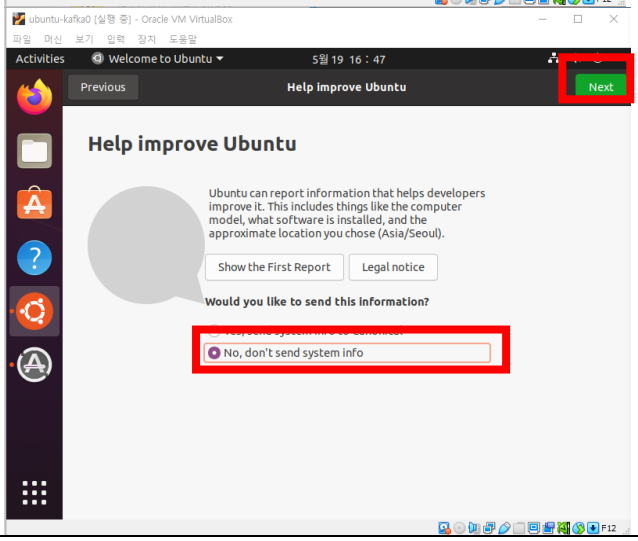
Create Login ID		id : ubuntu pw : ubuntu

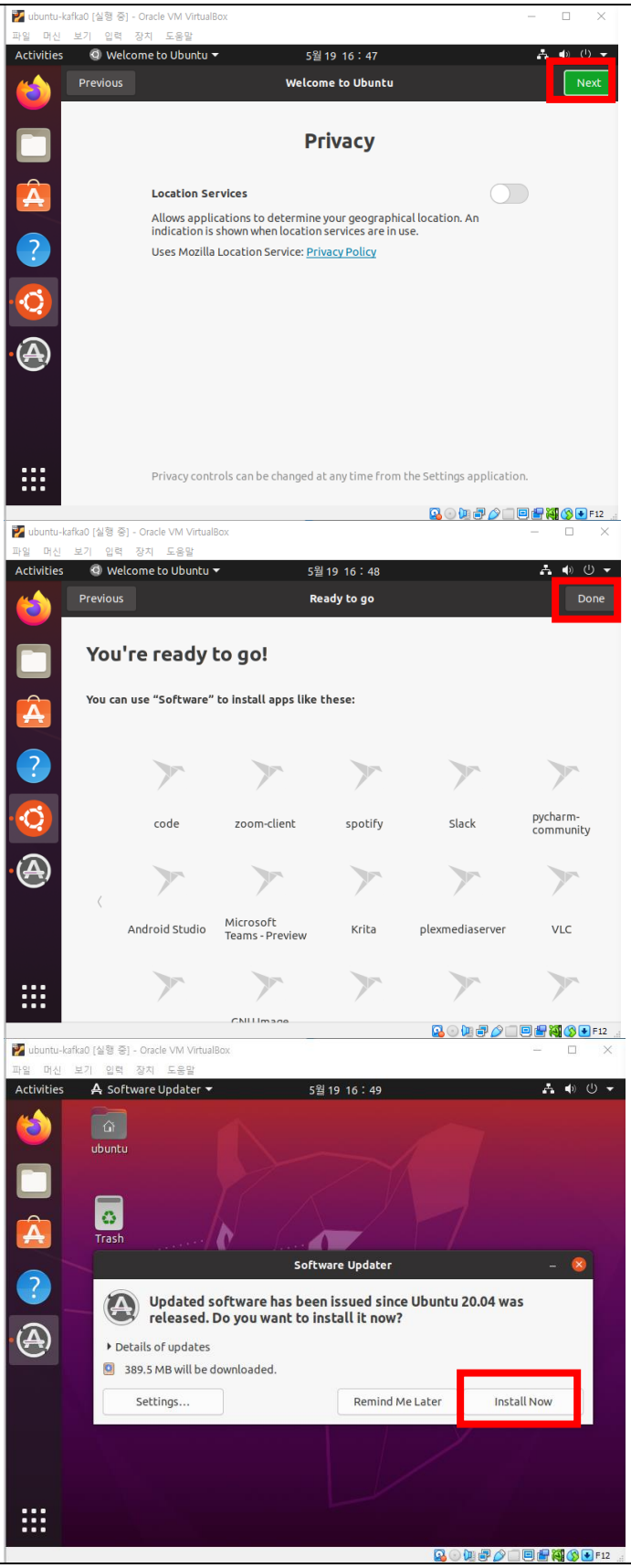

May 19 16:36
Install
Welcome to Ubuntu
Fast and full of new features, the latest version of Ubuntu makes computing easier than ever. Here are just a few cool new things to look out for...
Installing system
Skip

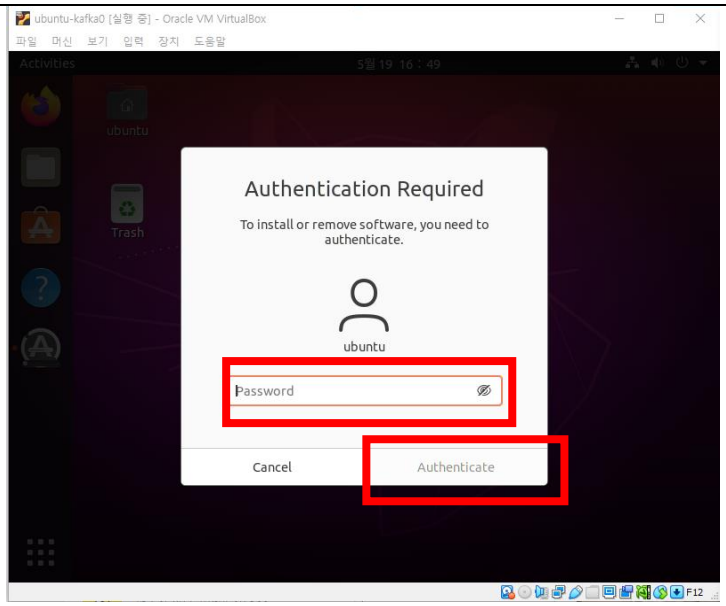

May 19 16:42
Installation Complete
Installation is complete. You need to restart the computer in order to use the new installation.
Restart Now


Activities
Welcome to Ubuntu
5월 19 16 : 45
Online Accounts
Skip
Connect Your Online Accounts
Connect your accounts to easily access your online calendar, documents, photos and more.
Ubuntu Single Sign-On
Google
Nextcloud
Microsoft
Accounts can be added and removed at any time from the Settings application.

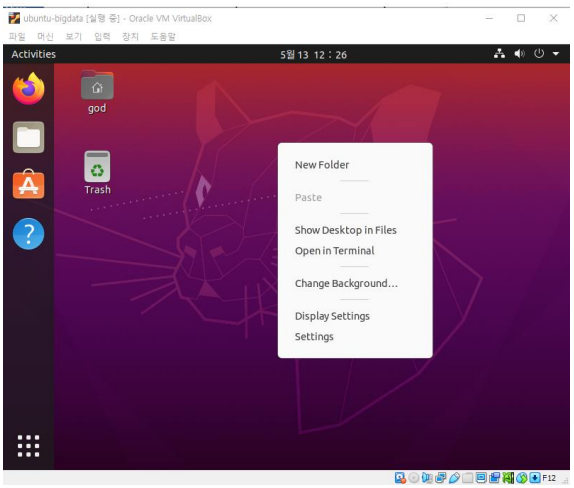

Activities
Welcome to Ubuntu
5월 19 16 : 46
Previous
Livepatch
Next
Livepatch
Canonical Livepatch helps keep your computer secure, by applying some updates that would normally require restarting.
Would you like to set up Livepatch now?
Set Up Livepatch...
Legal notice


Activities
Welcome to Ubuntu
5월 19 16 : 47
Previous
Help improve Ubuntu
Next
Help improve Ubuntu
Ubuntu can report information that helps developers improve it. This includes things like the computer model, what software is installed, and the approximate location you chose (Asia/Seoul).
Show the First Report
Legal notice
Would you like to send this information?
No, don't send system info


ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Welcome to Ubuntu
5월 19 16 : 47
Previous
Welcome to Ubuntu
Next
Privacy
Location Services
Allows applications to determine your geographical location. An indication is shown when location services are in use.
Uses Mozilla Location Service: Privacy Policy
Privacy controls can be changed at any time from the Settings application.
ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Welcome to Ubuntu
5월 19 16 : 48
Previous
Ready to go
Done
You're ready to go!
You can use "Software" to install apps like these:
code
zoom-client
spotify
Slack
pycharm-community
Android Studio
Microsoft Teams - Preview
Krita
plexmediaserver
VLC
ubuntu-kafka0 [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Software Updater
5월 19 16 : 49
ubuntu
Trash
Software Updater
Updated software has been issued since Ubuntu 20.04 was released. Do you want to install it now?
Details of updates
389.5 MB will be downloaded.
Settings...
Remind Me Later
Install Now

login		pw : ubuntu

2.2 setup ubuntu

update & upgrade	``` ubuntu@ubuntu-ML:~# sudo su - ubuntu@ubuntu-ML:~# apt-get update ubuntu@ubuntu-ML:~# apt-get upgrade -y ubuntu@ubuntu-ML:~# shutdown -r 0 ```
	
basic setup	ubuntu@ubuntu-ML:~# sudo su – ubuntu@ubuntu-ML:~# apt-get install -y build-essential

edit /etc/gdm3/custom.conf

```
[daemon]
AutomaticLoginEnable=true
AutomaticLogin=root

[security]
AllowRoot = true
```

edit /etc/pam.d/gdm-password

```
#auth required pam_succeed_if.so user != root quiet_success
```

edit /etc/pam.d/gdm-autologin

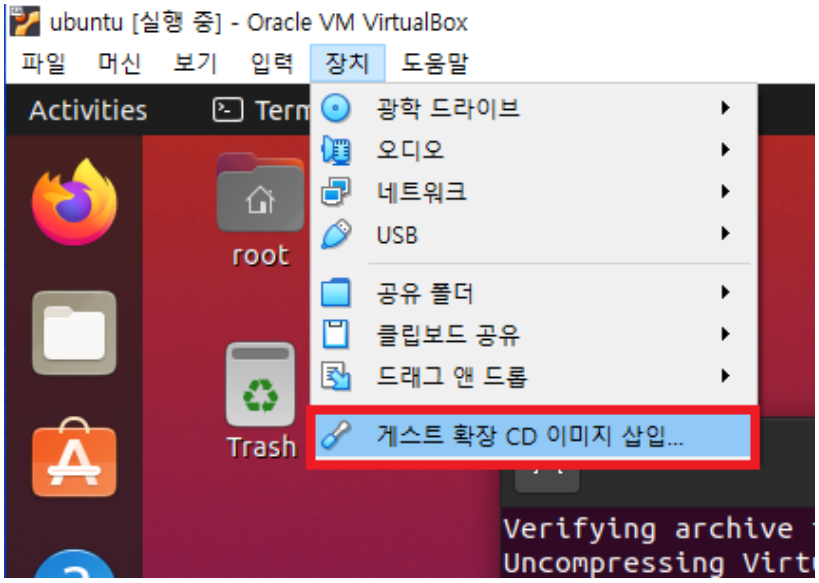
```
#auth required pam_succeed_if.so user != root quiet_success
```

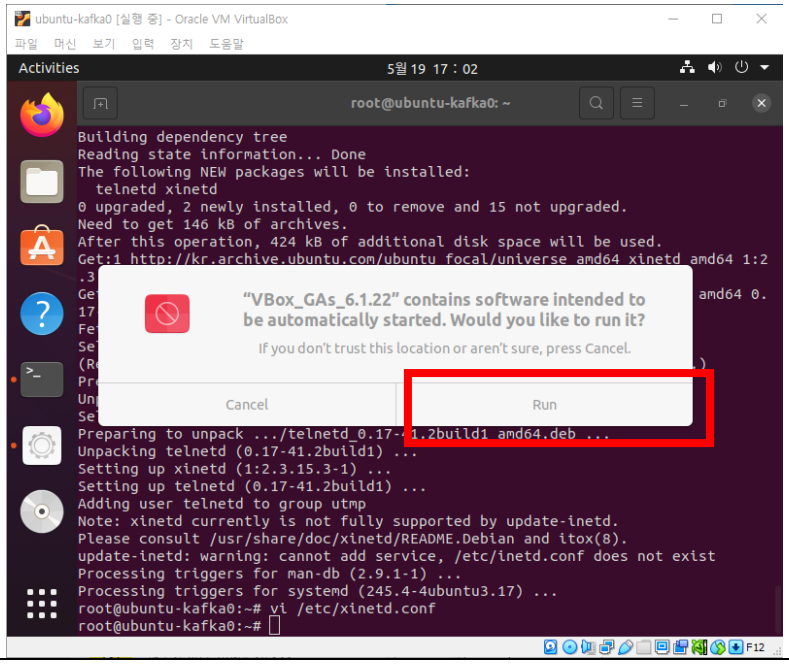
```
root@ubuntu-ML:~# apt-get install -y xinetd telnetd
```

edit /etc/xinetd.conf

```
service telnet
{
        disable = no
        flags = REUSE
        socket_type = stream
        wait = no
        user = root
        server = /usr/sbin/in.telnetd
        log_on_failure = USERID
}
```

install guestaddion



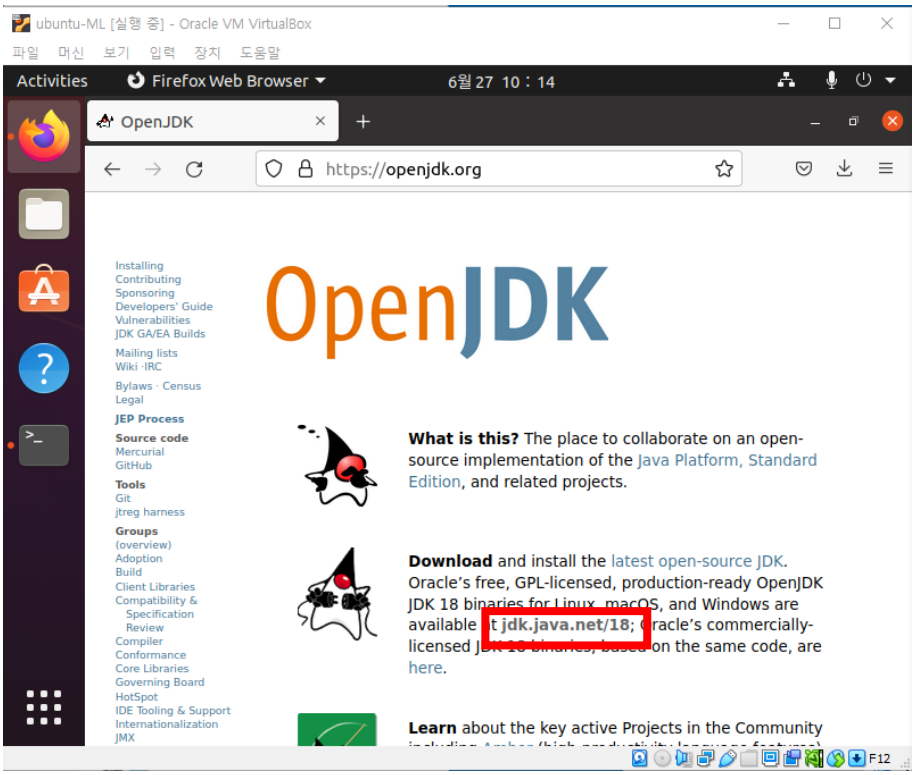


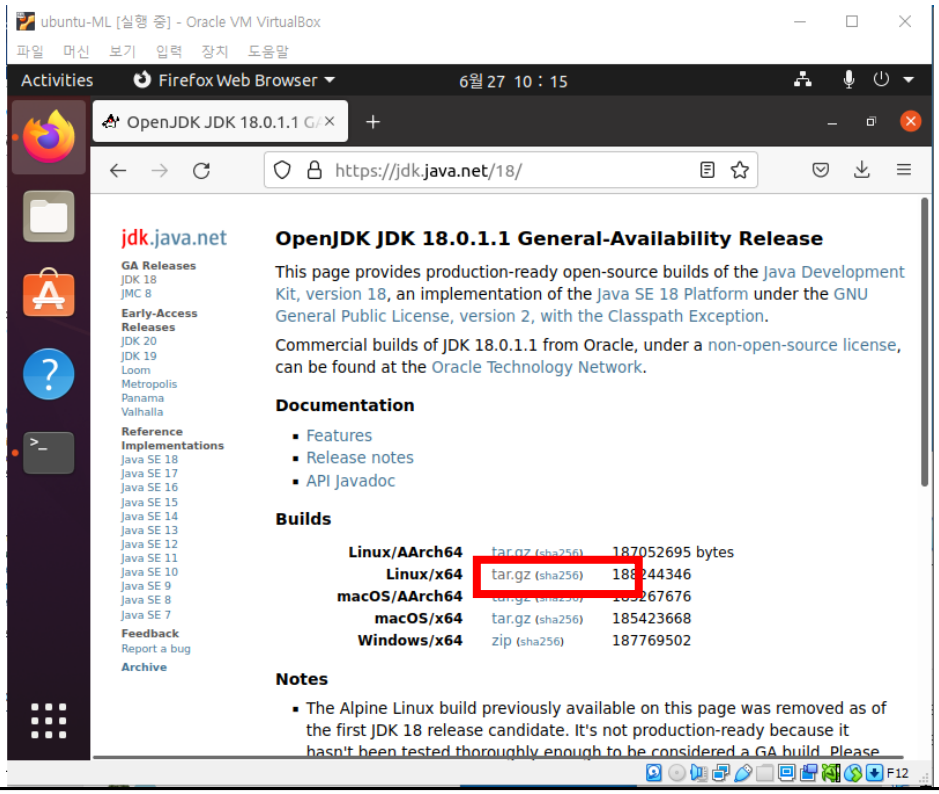
reboot

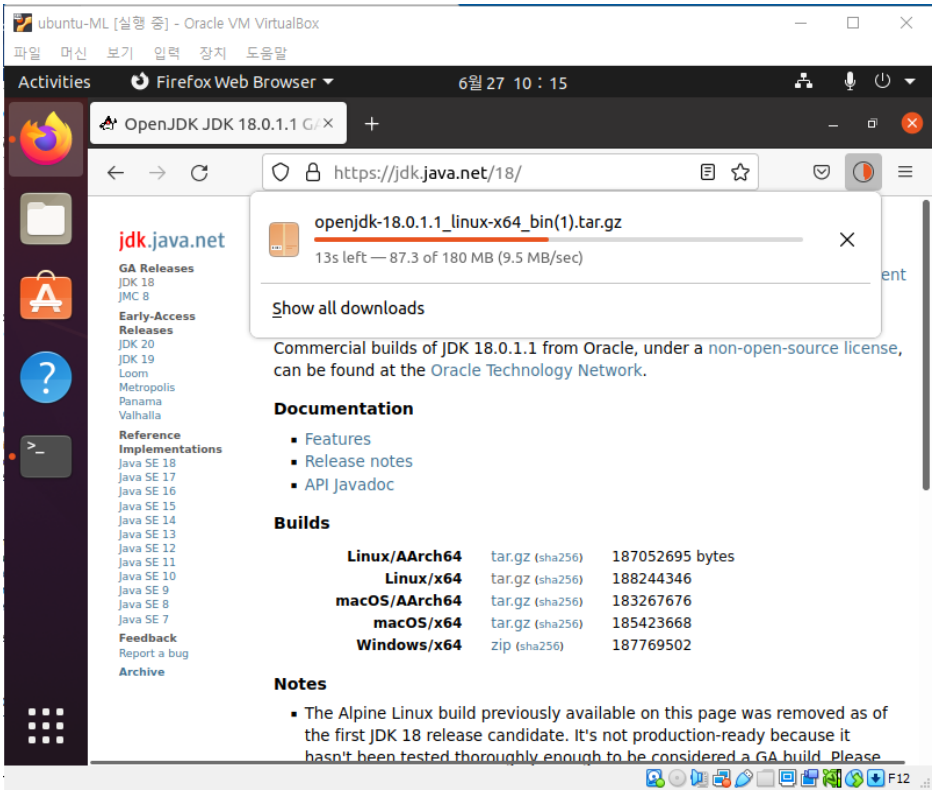
```
root@ubuntu-ML:~# shutdown -r 0
```

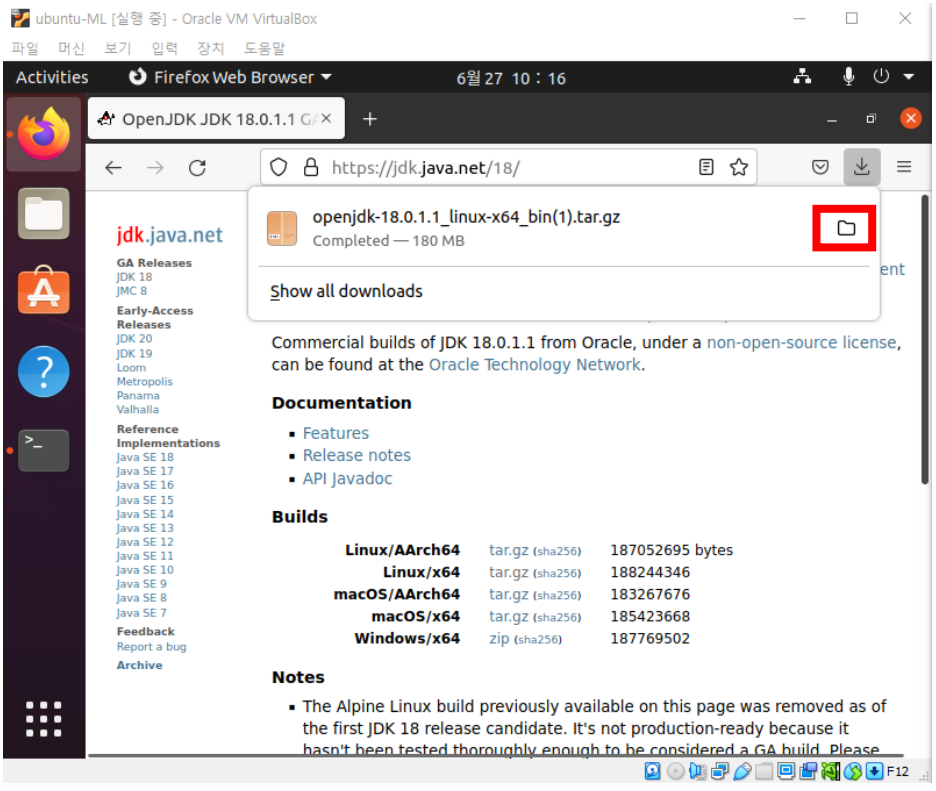
install openjdk

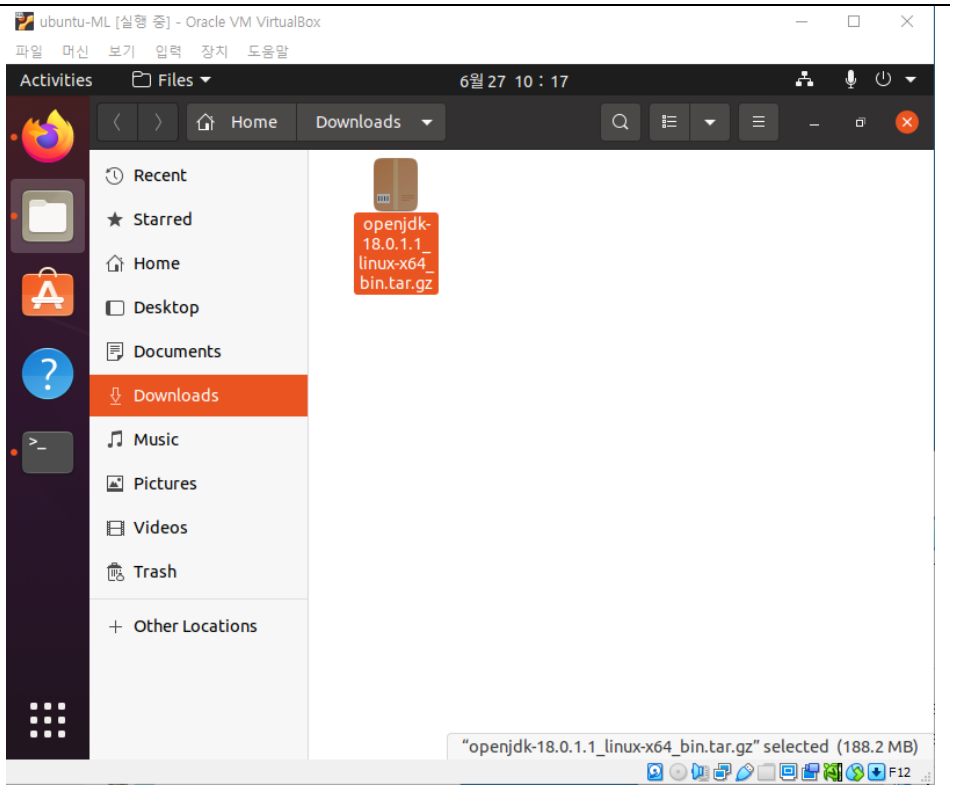
```
ubuntu@ubuntu-ML:~# mkdir /opt
ubuntu@ubuntu-ML:~# mkdir /opt/local
```

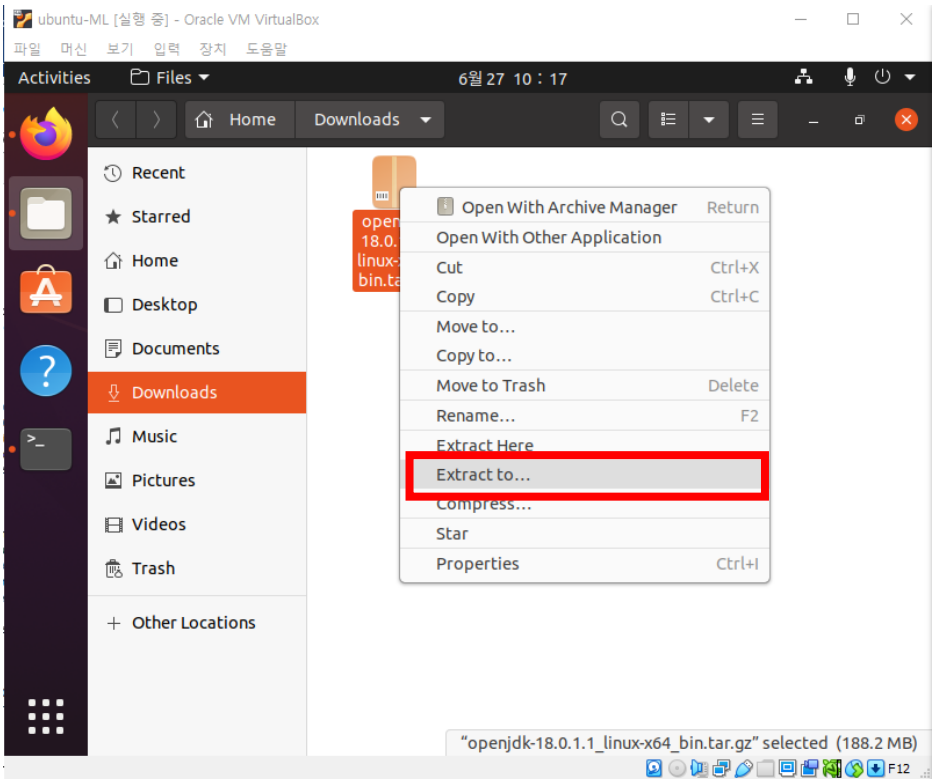


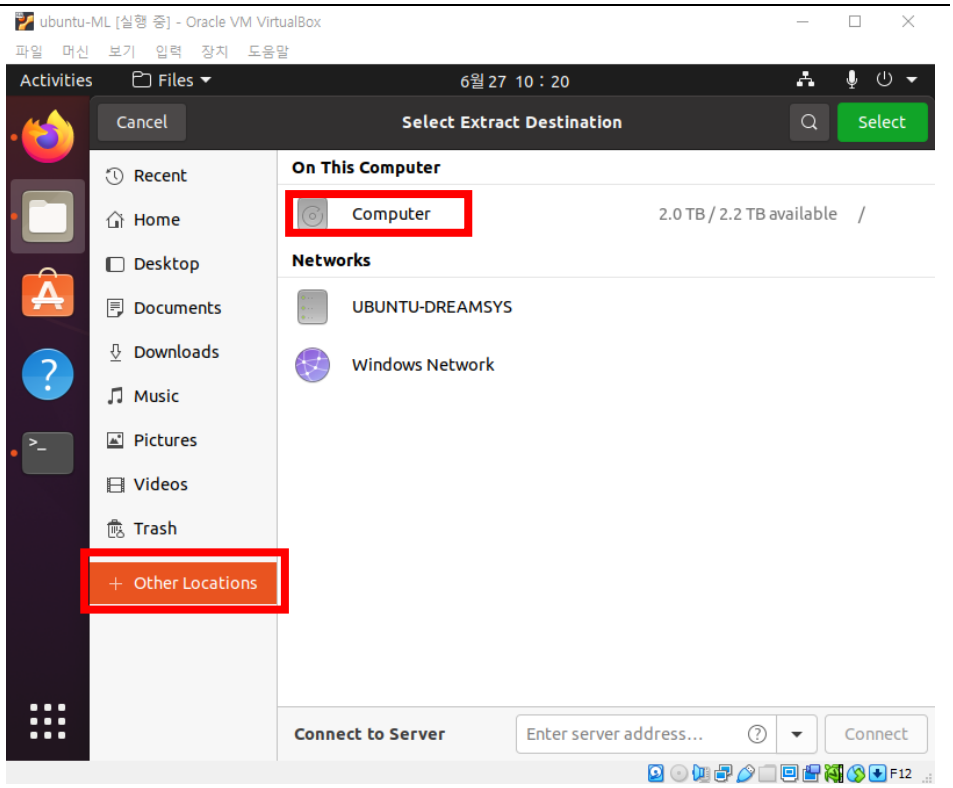


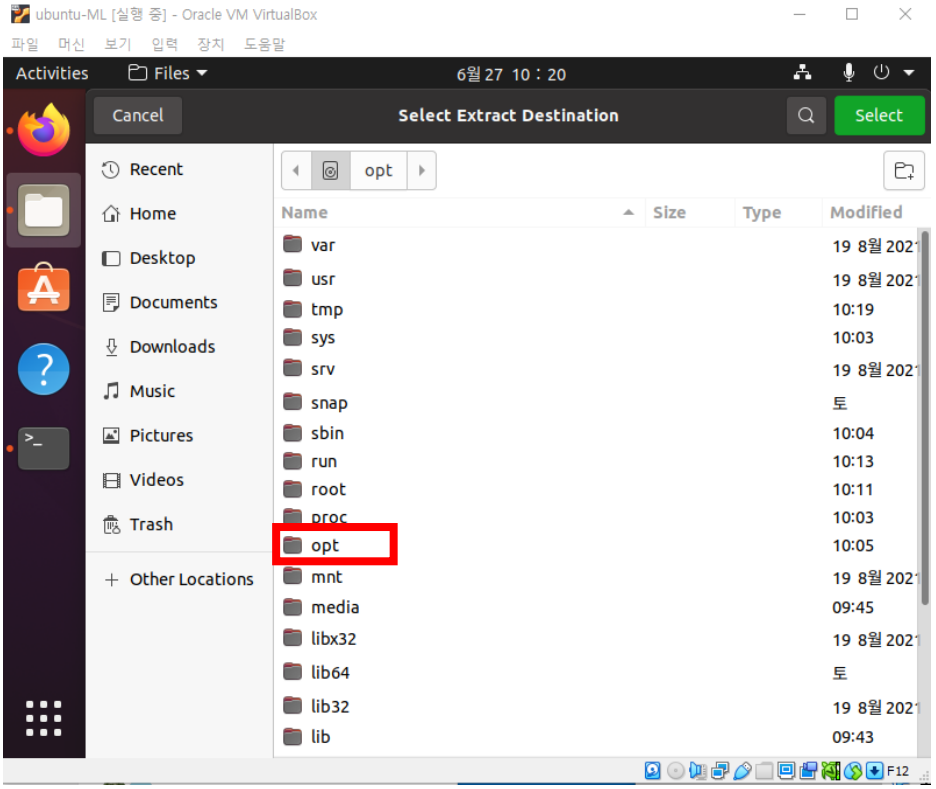

ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Firefox Web Browser
6월 27 10 : 15
OpenJDK JDK 18.0.1.1 G
https://jdk.java.net/18/
jdk.java.net
GA Releases
JDK 18
JMC 8
Early-Access Releases
JDK 20
JDK 19
Loom
Metropolis
Panama
Valhalla
Reference Implementations
Java SE 18
Java SE 17
Java SE 16
Java SE 15
Java SE 14
Java SE 13
Java SE 12
Java SE 11
Java SE 10
Java SE 9
Java SE 8
Java SE 7
Feedback
Report a bug
Archive
openjdk-18.0.1.1_linux-x64_bin(1).tar.gz
13s left — 87.3 of 180 MB (9.5 MB/sec)
Show all downloads
Commercial builds of JDK 18.0.1.1 from Oracle, under a non-open-source license, can be found at the Oracle Technology Network.
Documentation
Features
Release notes
API Javadoc
Builds
Linux/AArch64 tar.gz (sha256) 187052695 bytes
Linux/x64 tar.gz (sha256) 188244346
macOS/AArch64 tar.gz (sha256) 183267676
macOS/x64 tar.gz (sha256) 185423668
Windows/x64 zip (sha256) 187769502
Notes
The Alpine Linux build previously available on this page was removed as of the first JDK 18 release candidate. It's not production-ready because it
F12

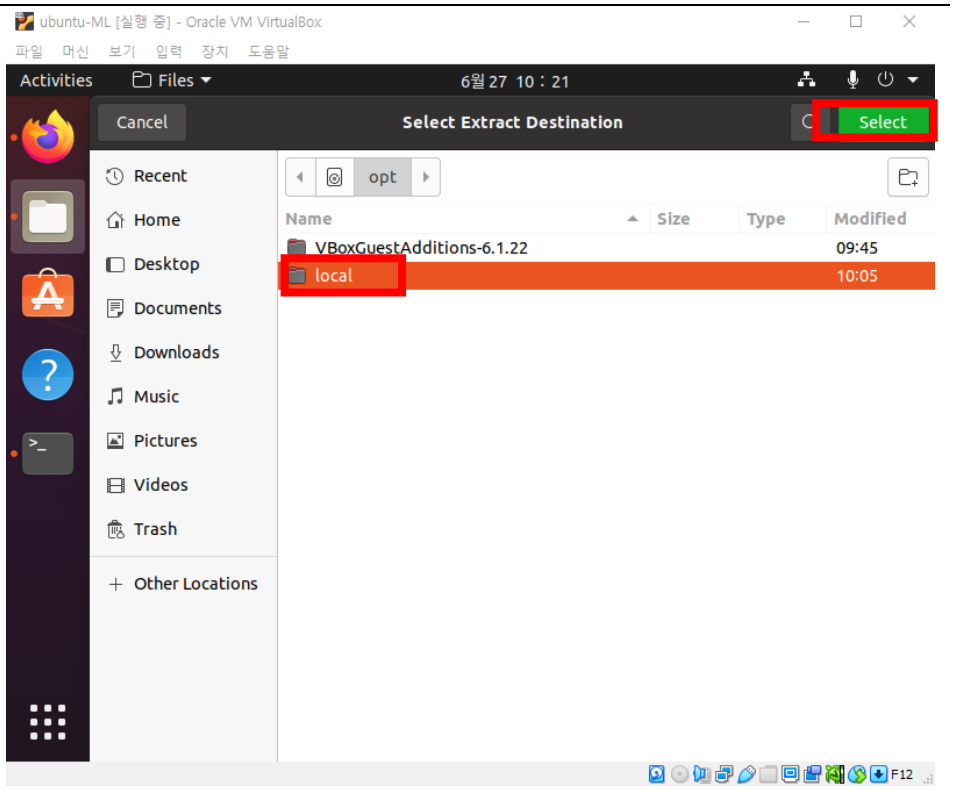

ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Firefox Web Browser
6월 27 10 : 16
OpenJDK JDK 18.0.1.1 G
https://jdk.java.net/18/
jdk.java.net
GA Releases
JDK 18
JMC 8
Early-Access Releases
JDK 20
JDK 19
Loom
Metropolis
Panama
Valhalla
Reference Implementations
Java SE 18
Java SE 17
Java SE 16
Java SE 15
Java SE 14
Java SE 13
Java SE 12
Java SE 11
Java SE 10
Java SE 9
Java SE 8
Java SE 7
Feedback
Report a bug
Archive
openjdk-18.0.1.1_linux-x64_bin(1).tar.gz
Completed — 180 MB
Show all downloads
Commercial builds of JDK 18.0.1.1 from Oracle, under a non-open-source license, can be found at the Oracle Technology Network.
Documentation
Features
Release notes
API Javadoc
Builds
Linux/AArch64 tar.gz (sha256) 187052695 bytes
Linux/x64 tar.gz (sha256) 188244346
macOS/AArch64 tar.gz (sha256) 183267676
macOS/x64 tar.gz (sha256) 185423668
Windows/x64 zip (sha256) 187769502
Notes
The Alpine Linux build previously available on this page was removed as of the first JDK 18 release candidate. It's not production-ready because it
F12


ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Files
6월 27 10 : 17
Home
Downloads
Recent
Starred
Home
Desktop
Documents
Downloads
Music
Pictures
Videos
Trash
Other Locations
openjdk-18.0.1.1_linux-x64_bin.tar.gz
"openjdk-18.0.1.1_linux-x64_bin.tar.gz" selected (188.2 MB)


ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Files
6월 27 10 : 17
Home
Downloads
Recent
Starred
Home
Desktop
Documents
Downloads
Music
Pictures
Videos
Trash
Other Locations
Open With Archive Manager Return
Open With Other Application
Cut Ctrl+X
Copy Ctrl+C
Move to...
Copy to...
Move to Trash Delete
Rename... F2
Extract Here
Extract to...
Compress...
Star
Properties Ctrl+I
"openjdk-18.0.1.1_linux-x64_bin.tar.gz" selected (188.2 MB)


ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Files
6월 27 10 : 20
Cancel
Select Extract Destination
Select
Recent
Home
Desktop
Documents
Downloads
Music
Pictures
Videos
Trash
Other Locations
On This Computer
Computer
2.0 TB / 2.2 TB available /
Networks
UBUNTU-DREAMSYS
Windows Network
Connect to Server
Enter server address...
Connect


ubuntu-ML [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
Activities
Files
6월 27 10 : 20
Cancel
Select Extract Destination
Select
Recent
Home
Desktop
Documents
Downloads
Music
Pictures
Videos
Trash
Other Locations
opt
Name
Size
Type
Modified
var
usr
tmp
sys
srv
snap
sbin
run
root
proc
opt
mnt
media
libx32
lib64
lib32
lib
10:19
10:03
10:04
10:13
10:11
10:03
10:05
09:45
09:43




```
root@ubuntu-ML:~# cd /opt/local
root@ubuntu-ML:/opt/local# ls -al
total 12
drwxr-xr-x 3 root root 4096  6월 27 10:22 .
drwxr-xr-x 4 root root 4096  6월 27 10:05 ..
drwxr-xr-x 3 root root 4096  6월 27 10:22 openjdk-
18.0.1.1_linux-x64_bin
root@ubuntu-ML:/opt/local# ln -s openjdk-18.0.1.1_linux-
x64_bin/ openjdk
root@ubuntu-ML:/opt/local# ls -al
total 12
drwxr-xr-x 3 root root 4096  6월 27 10:24 .
drwxr-xr-x 4 root root 4096  6월 27 10:05 ..
lrwxrwxrwx 1 root root   31  6월 27 10:24 openjdk -> openjdk-
18.0.1.1_linux-x64_bin/
drwxr-xr-x 3 root root 4096  6월 27 10:22 openjdk-
18.0.1.1_linux-x64_bin
root@ubuntu-ML:/opt/local#
```

setup environments	edit ~/.toolchain root@ubuntu-ML:/opt# vi ~/.toolchain export JAVA_HOME=/opt/local/openjdk export PATH=$JAVA_HOME:$JAVA_HOME/bin:$PATH:.
	edit ~/.bashrc root@ubuntu-ML:/opt# vi ~/.bashrc if [-f ~/.toolchain]; then . ~/.toolchain fi