Computer Networks

Project environment setup - VirtualBox /Ubuntu18.04

Computer Networks 2022, KECE449

Presenter : Changmin Park

Contents

- Oracle VirtualBox / Ubuntu installation
- Linux-based OS tutorial
- Node.js installation

Oracle VirtualBox / Ubuntu installation

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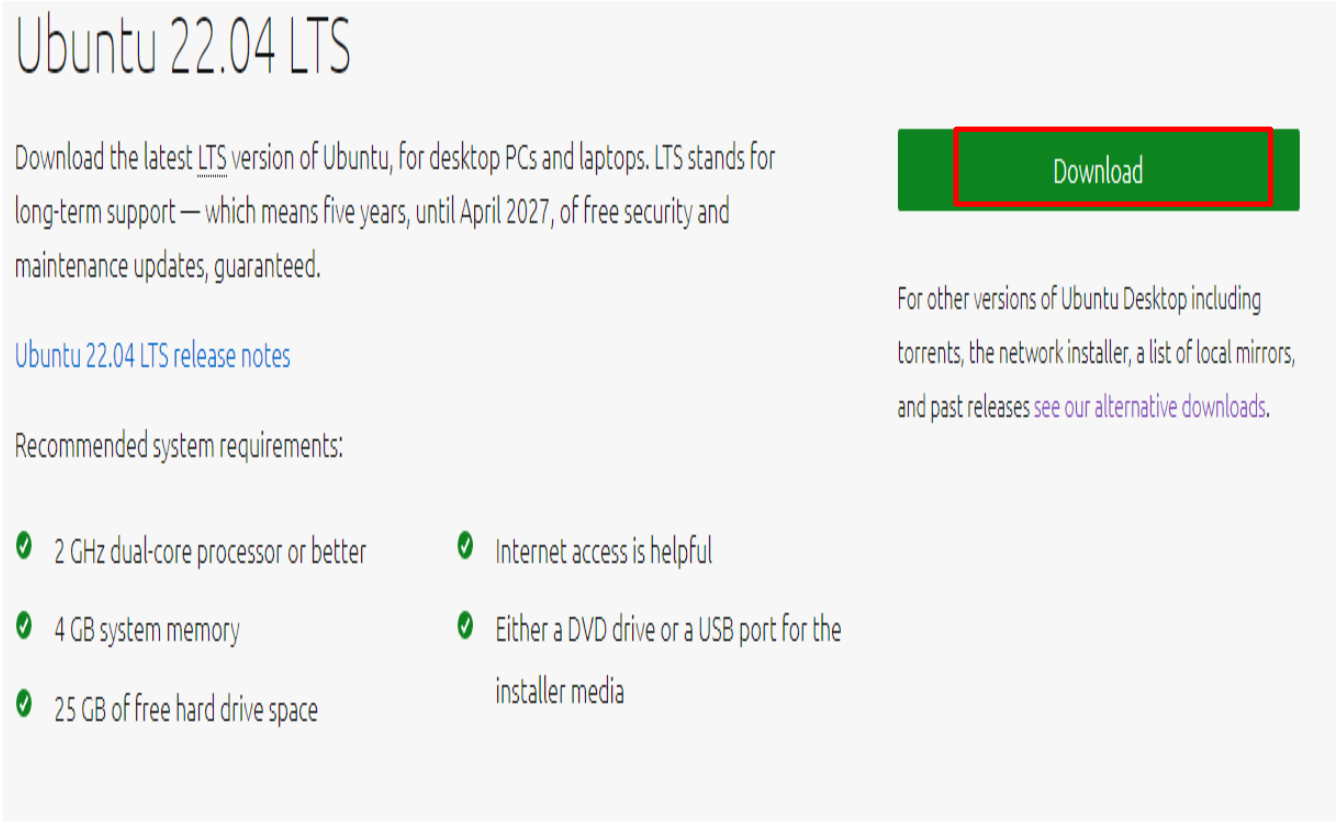
Oracle VirtualBox / Ubuntu installation

- Download Ubuntu at
  - https://ubuntu.com/download/desktop
- Recommended version : 22.04 LTS
- It takes 3~5 minutes

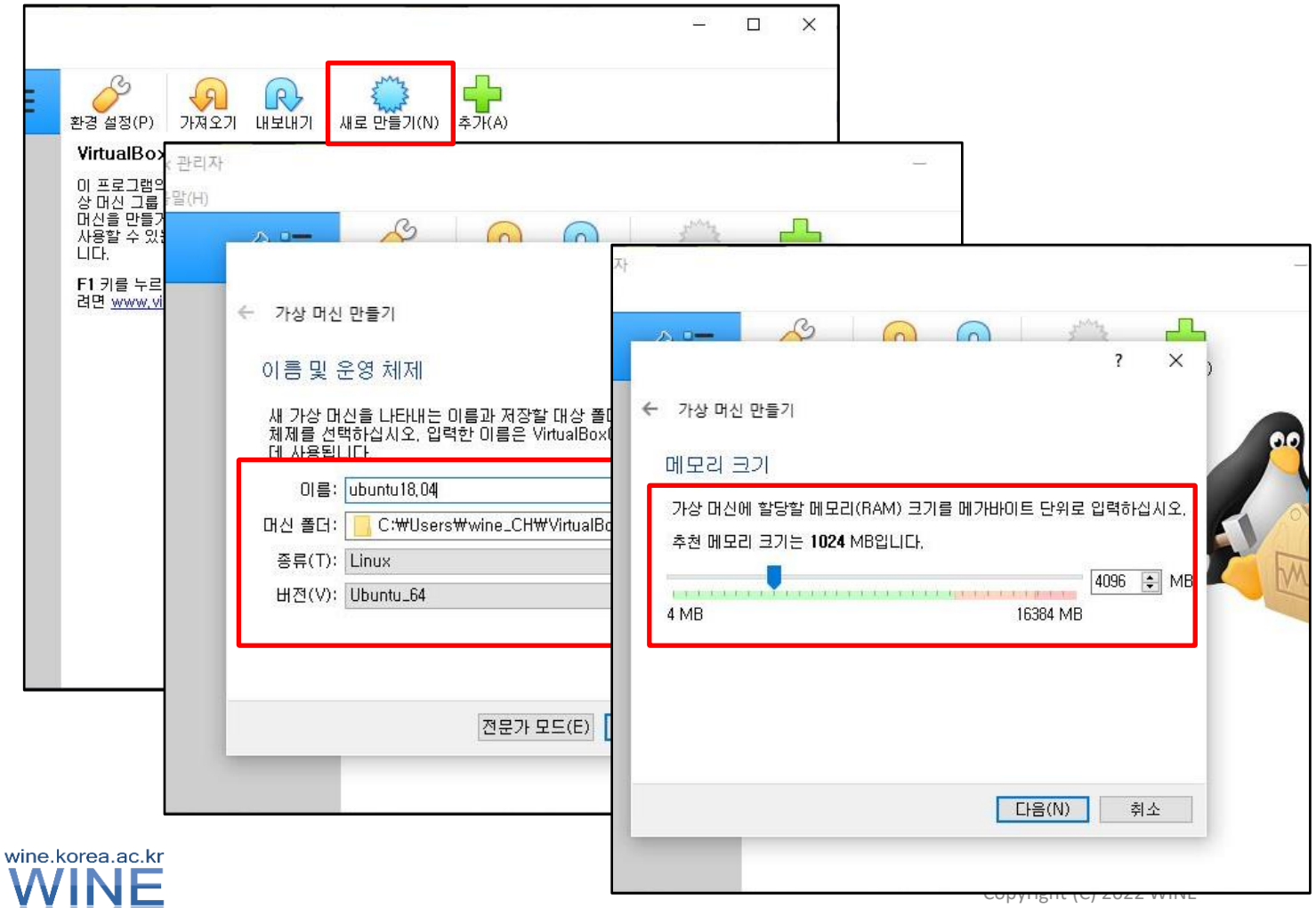


Oracle VirtualBox / Ubuntu installation

- Download VirtualBox at
  - https://www.virtualbox.org/wiki/Downloads
- Select following your host's OS
- Click [next] repeatedly until done

Oracle VirtualBox / Ubuntu installation

- Install Ubuntu 18.04 in VirtualBox



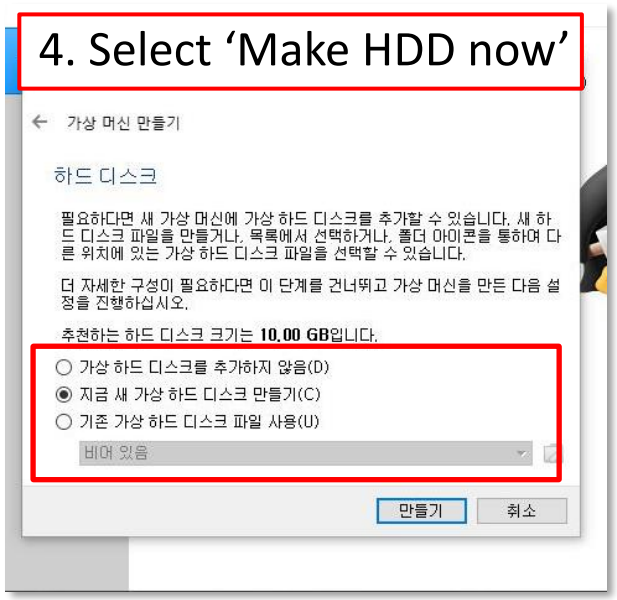
1. Press [새로 만들기]

2.Type the information
   - any name possible

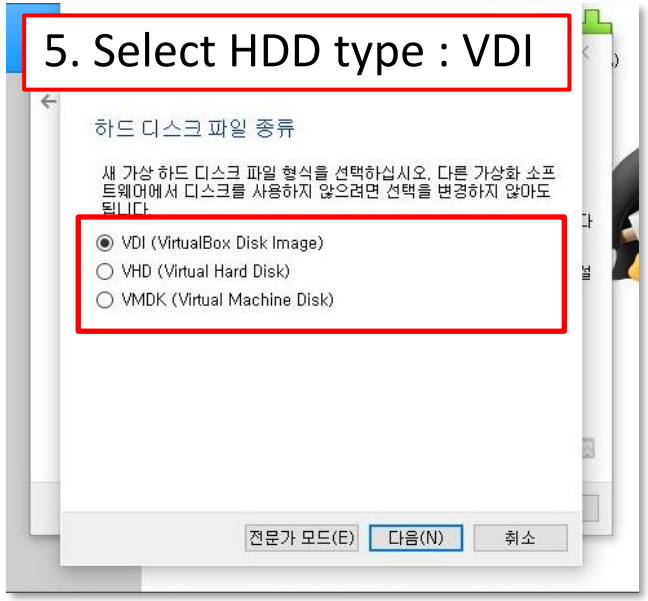
3. Adjust memory size
   - 4096 (if you could) recommend

Oracle VirtualBox / Ubuntu installation

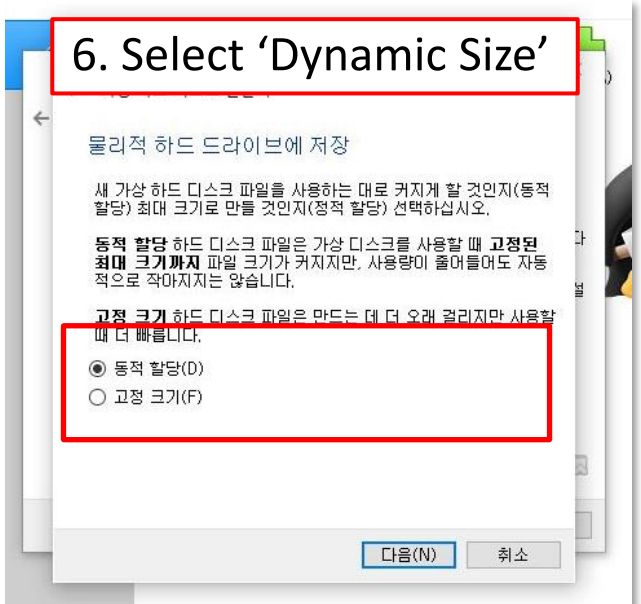
4. Select ‘Make HDD now’



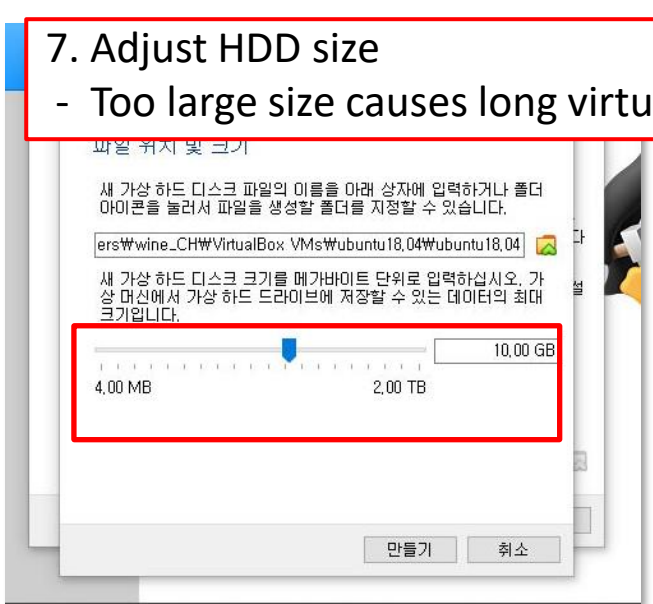
5. Select HDD type : VDI



6. Select ‘Dynamic Size’

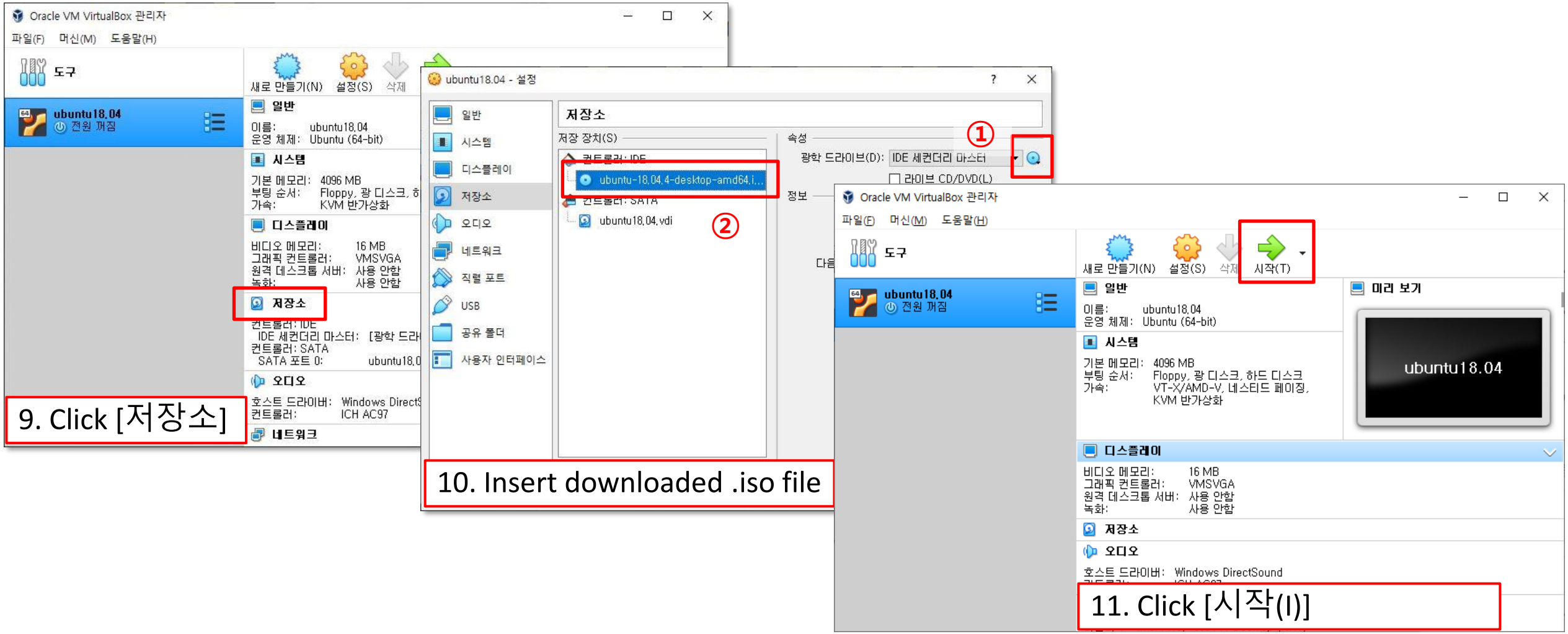


7. Adjust HDD size
- Too large size causes long virtualization time

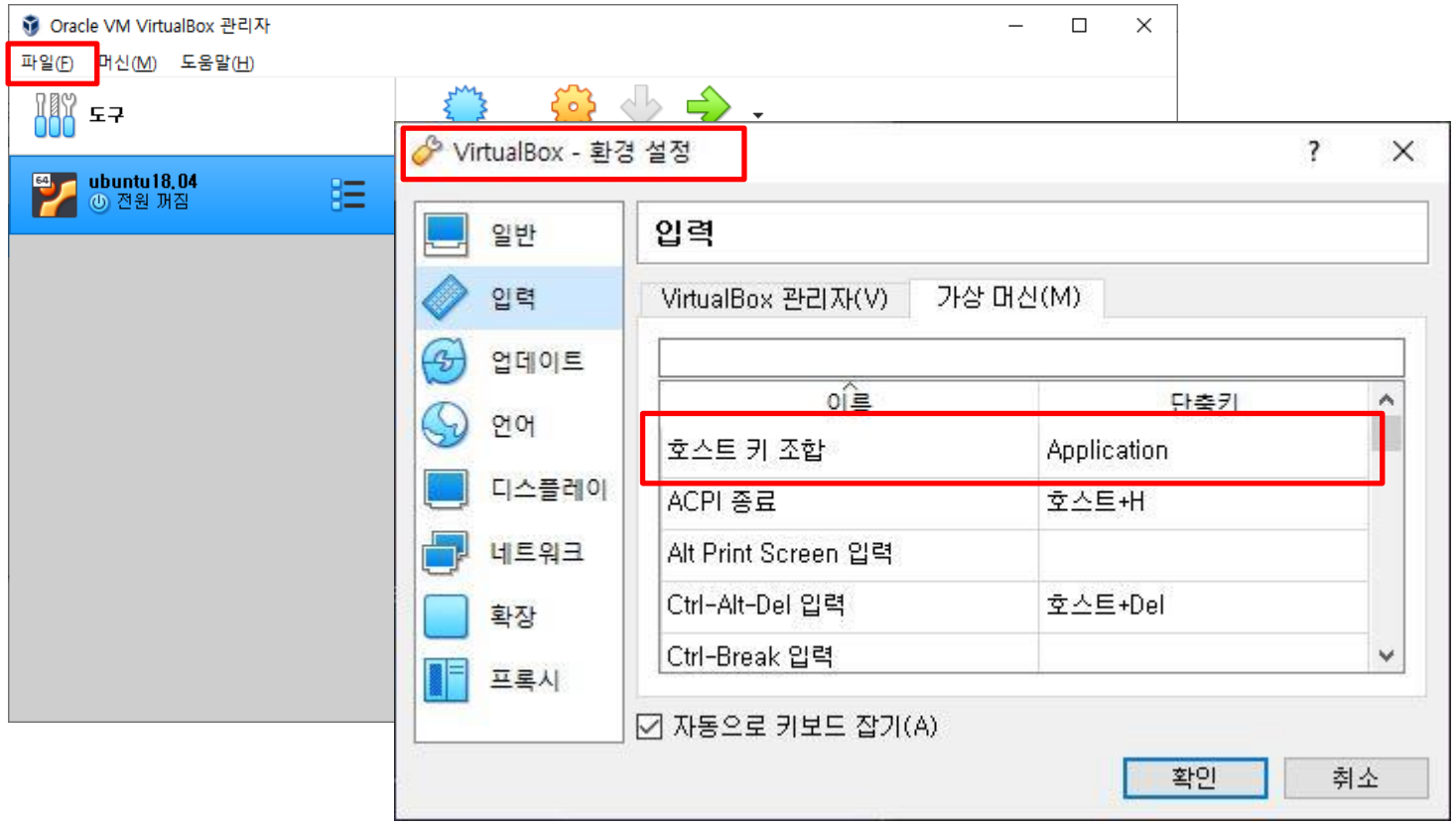


8. Wait for a while….

Oracle VirtualBox / Ubuntu installation



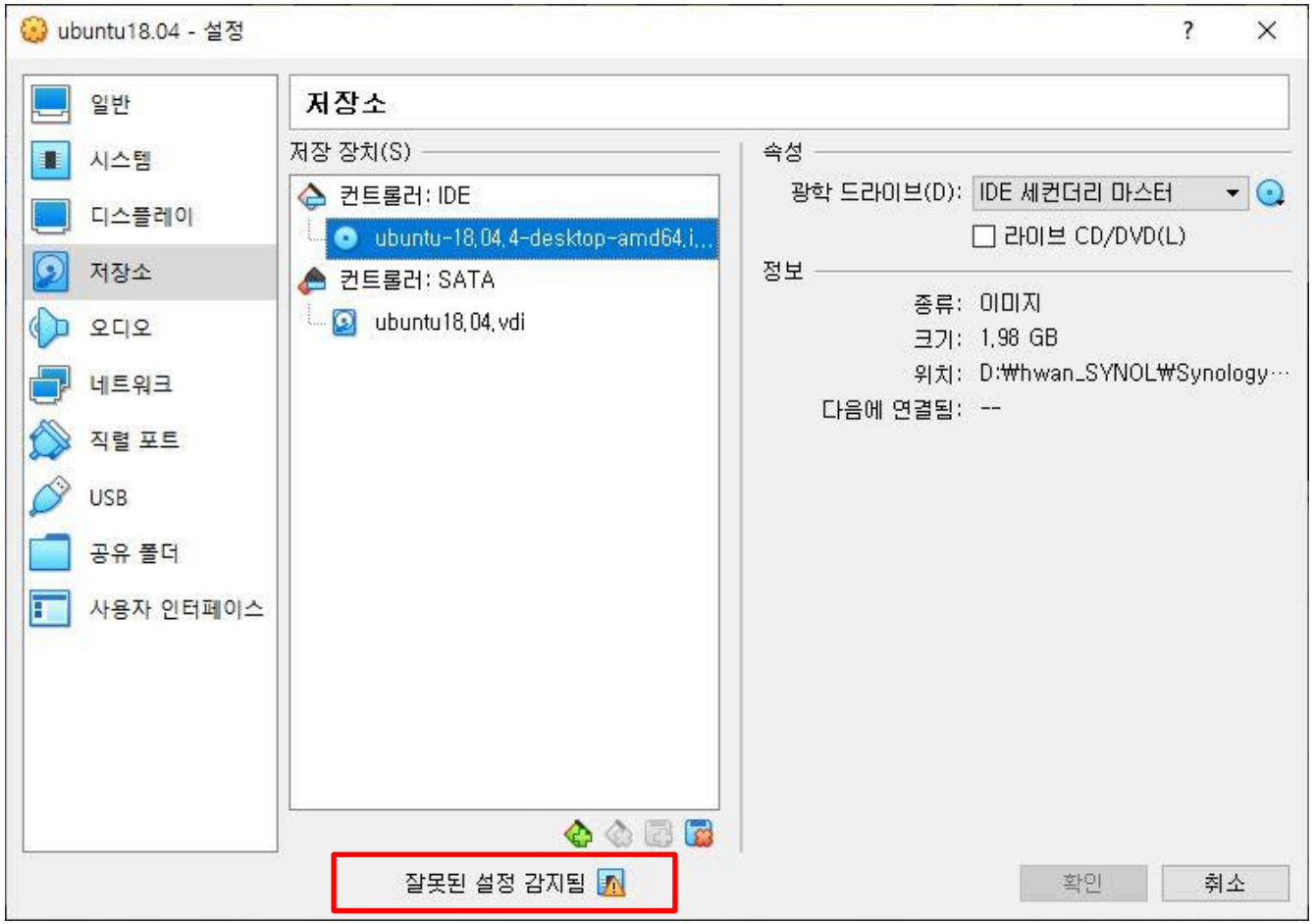
Oracle VirtualBox / Ubuntu installation



- Before start , I recommend you to change [Host key] in Setup.

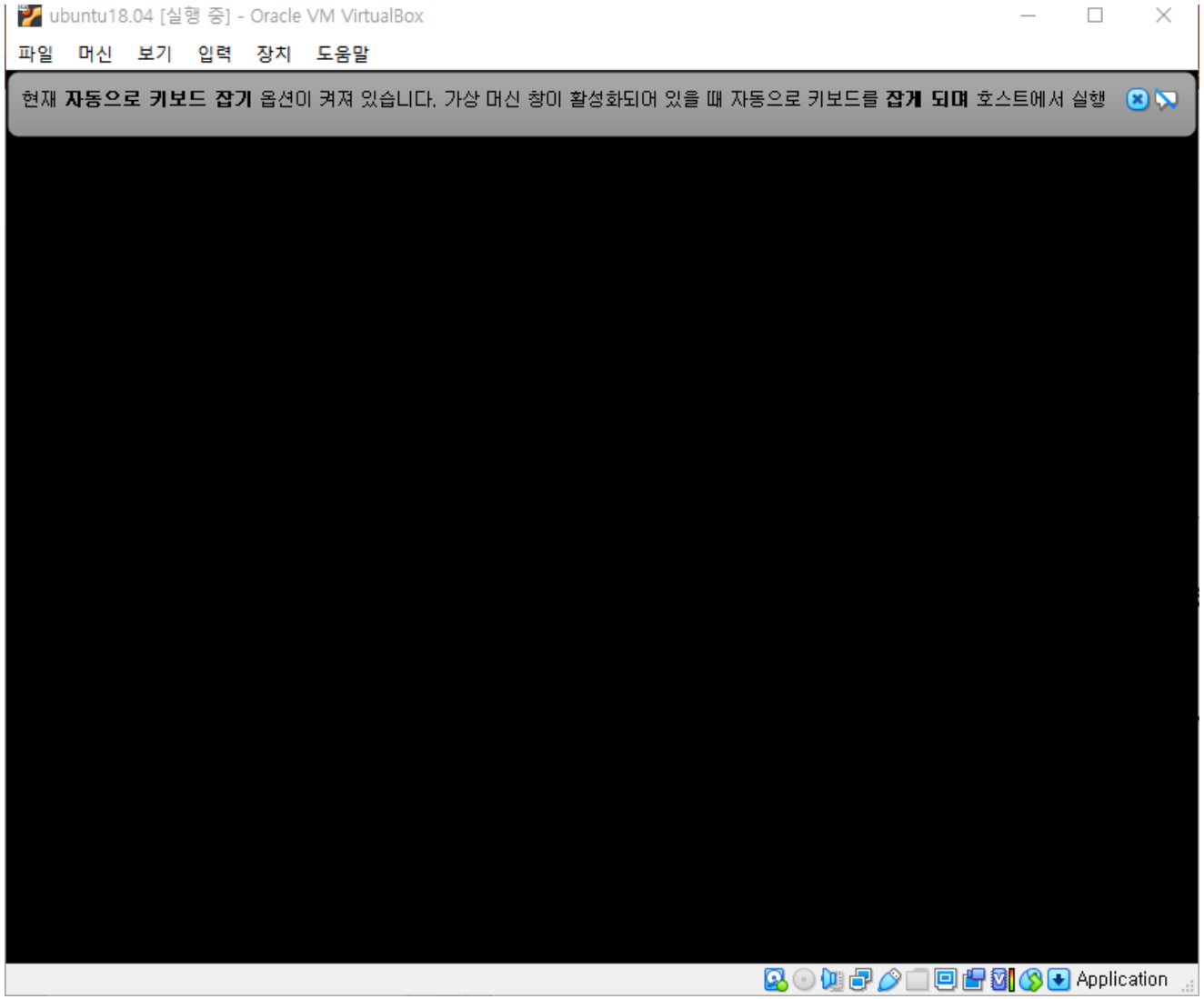
Oracle VirtualBox / Ubuntu installation

- * Trouble Shooting
  - If you suffer Virtualization Error as the picture, you should enable virtualization option in BIOS
  - Please refer to this link :
    - https://support.bluestacks.com/hc/en-us/articles/115003174386#%229%22



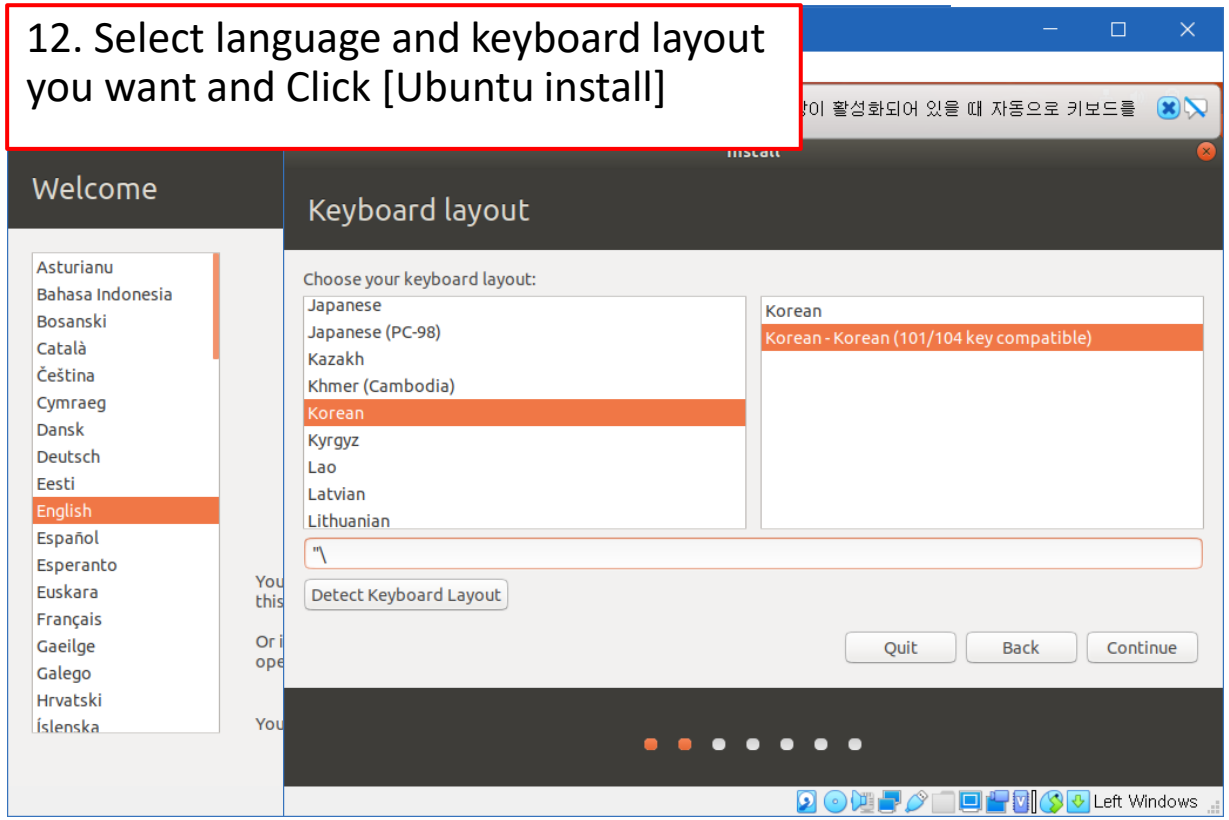
Oracle VirtualBox / Ubuntu installation

- Ubuntu booting..

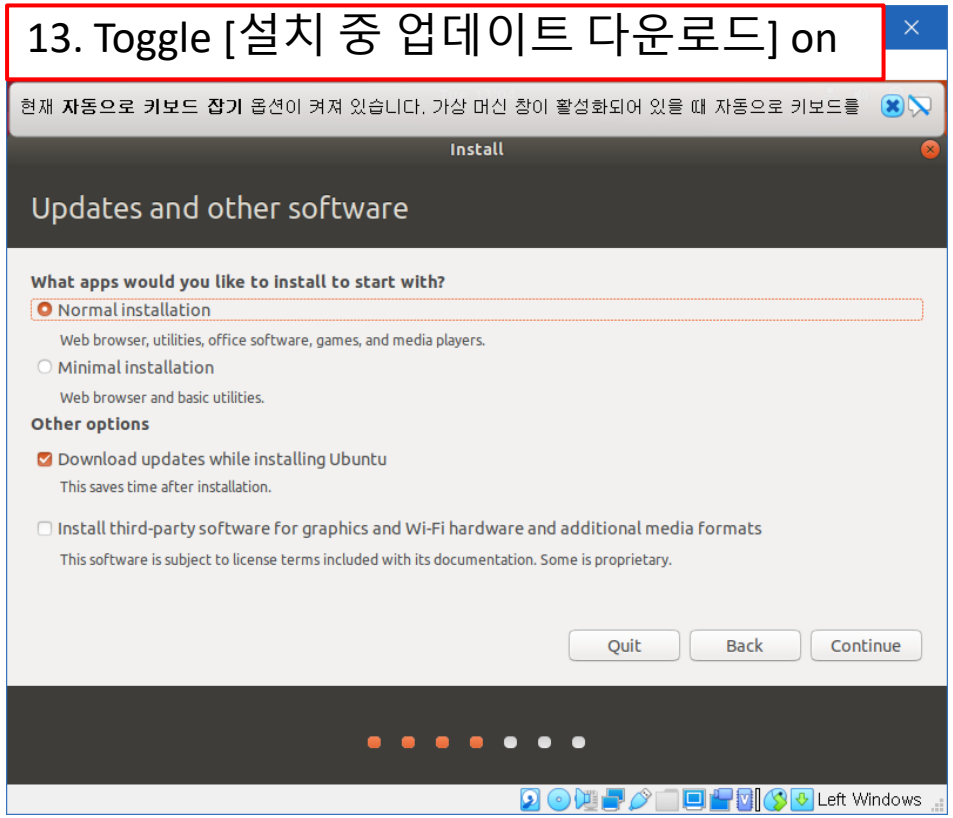


Oracle VirtualBox / Ubuntu installation

12. Select language and keyboard layout you want and Click [Ubuntu install]

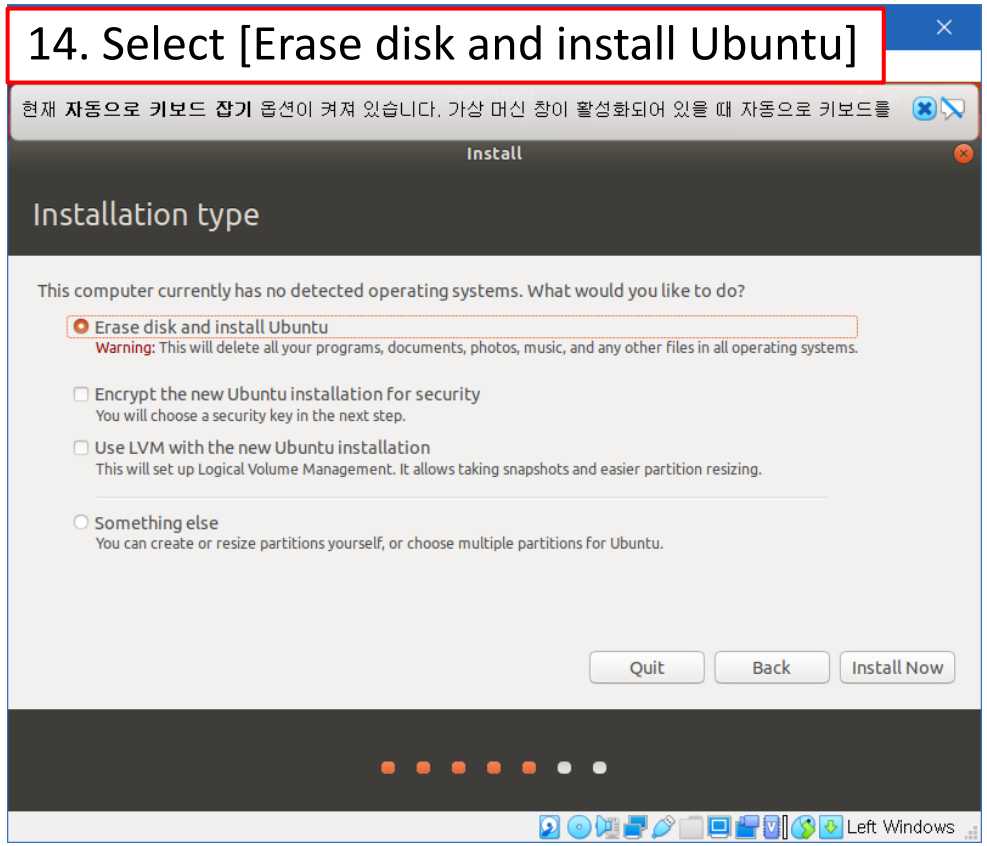


13. Toggle [설치 중 업데이트 다운로드] on

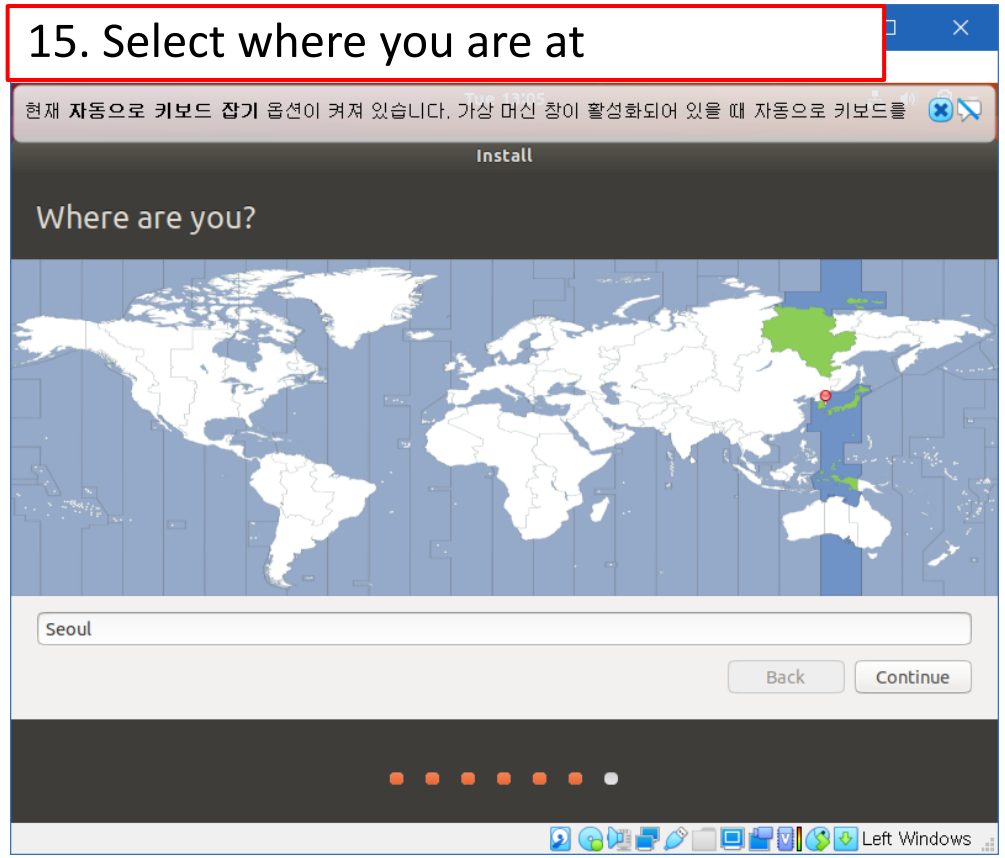


Oracle VirtualBox / Ubuntu installation

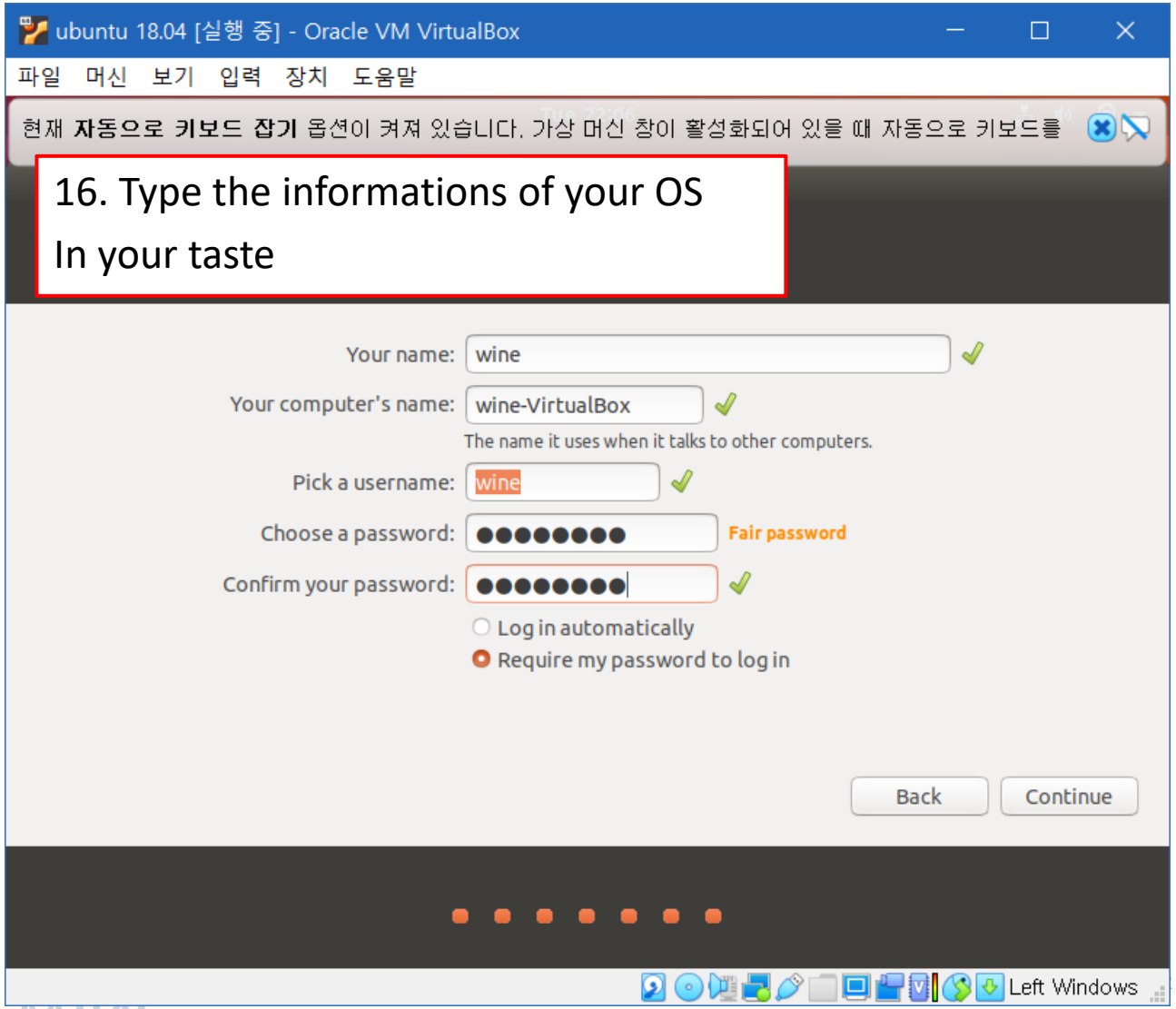
14. Select [Erase disk and install Ubuntu]

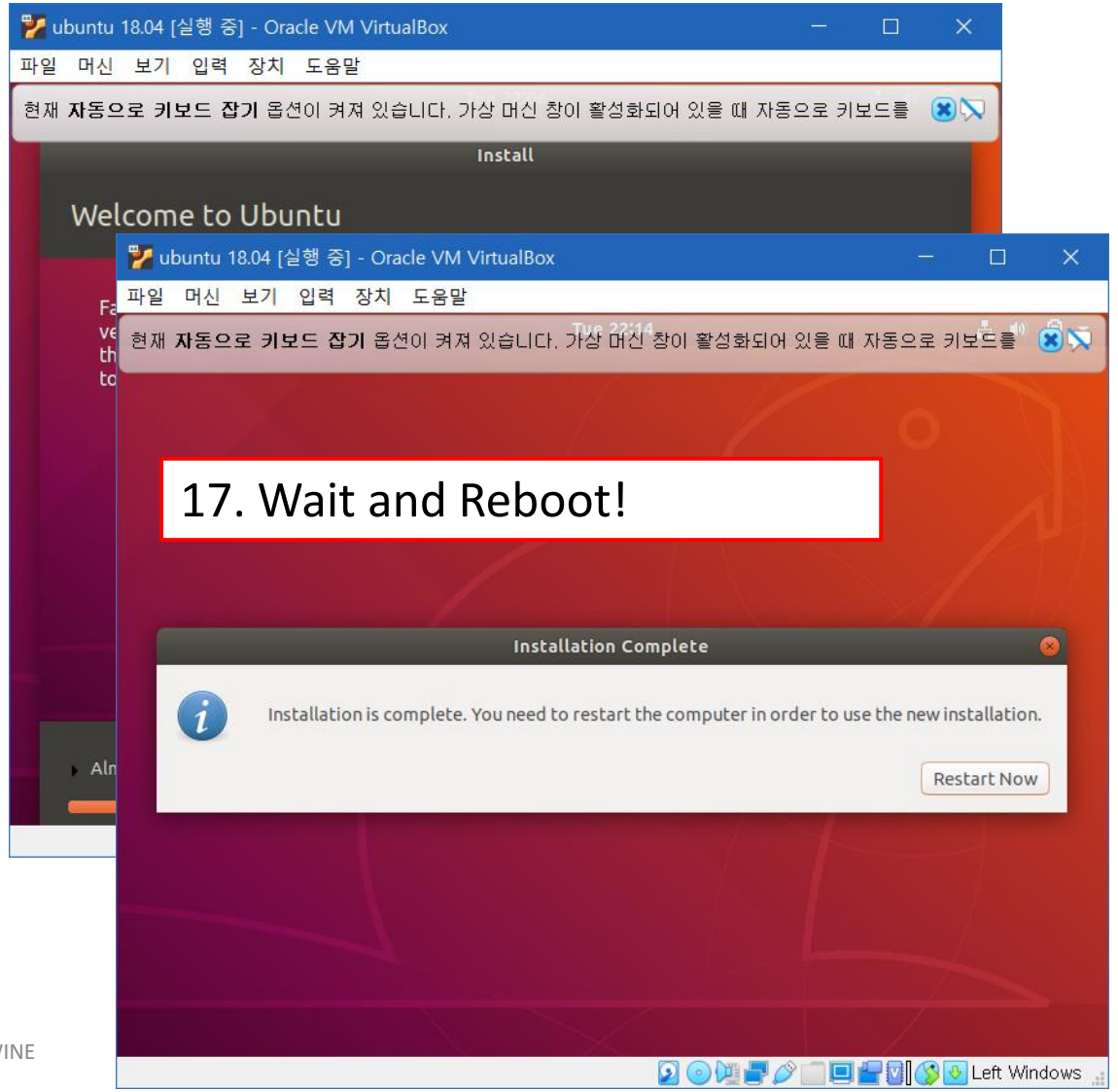


15. Select where you are at



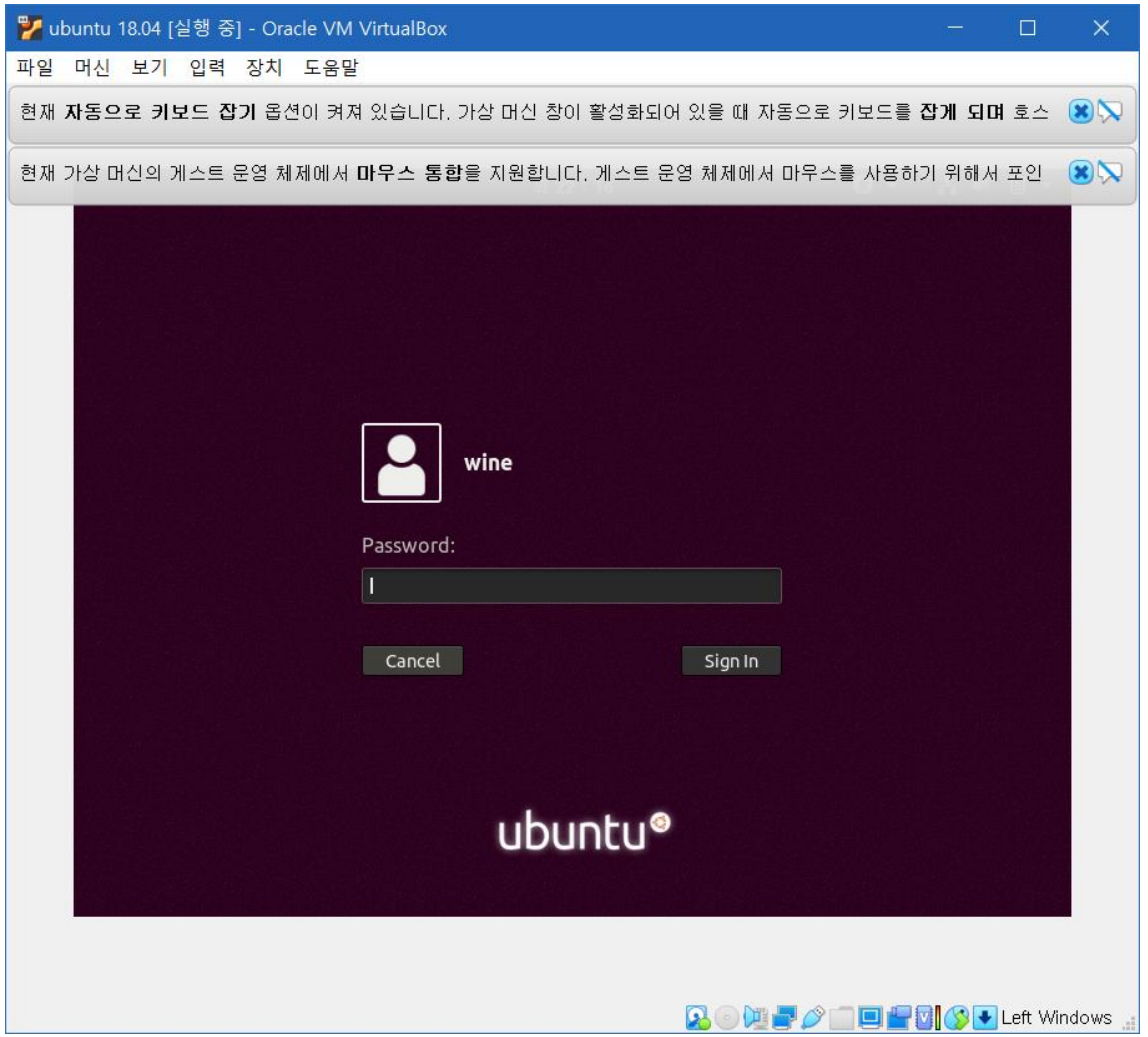
Oracle VirtualBox / Ubuntu installation



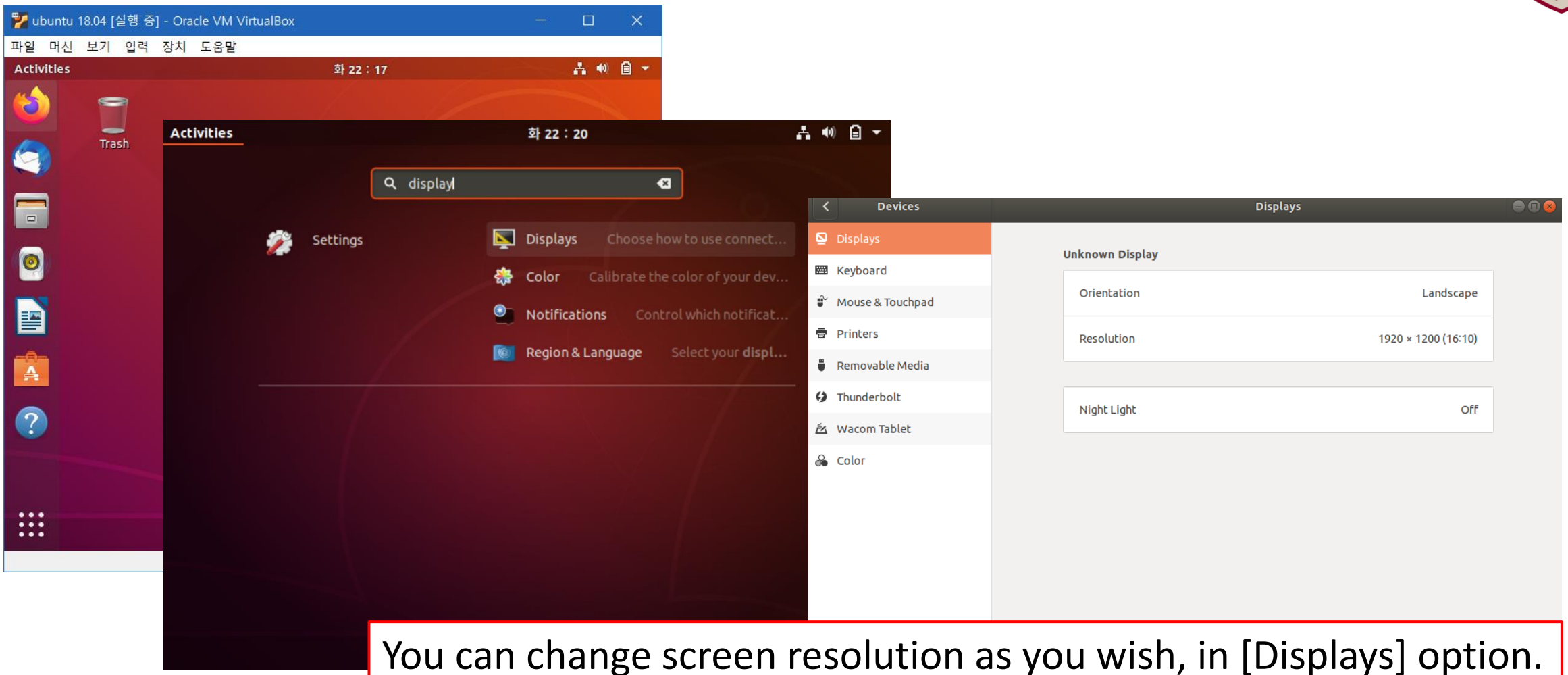


Oracle VirtualBox / Ubuntu installation

- Congratulations!
  Now, you are ready to use Ubuntu!



Oracle VirtualBox / Ubuntu installation



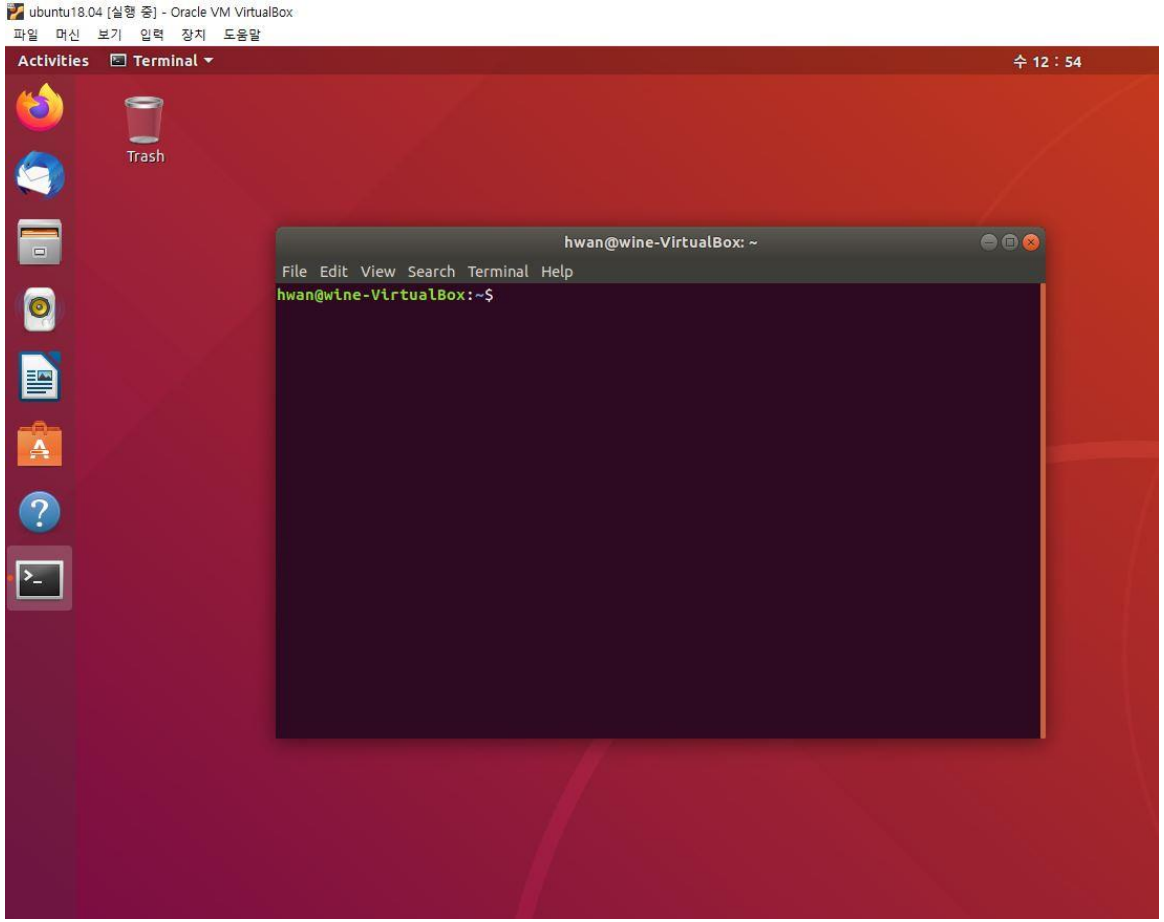
You can change screen resolution as you wish, in [Displays] option.
You can search with Left-window-key.

Linux-based OS tutorial

Presenter : Changmin Park

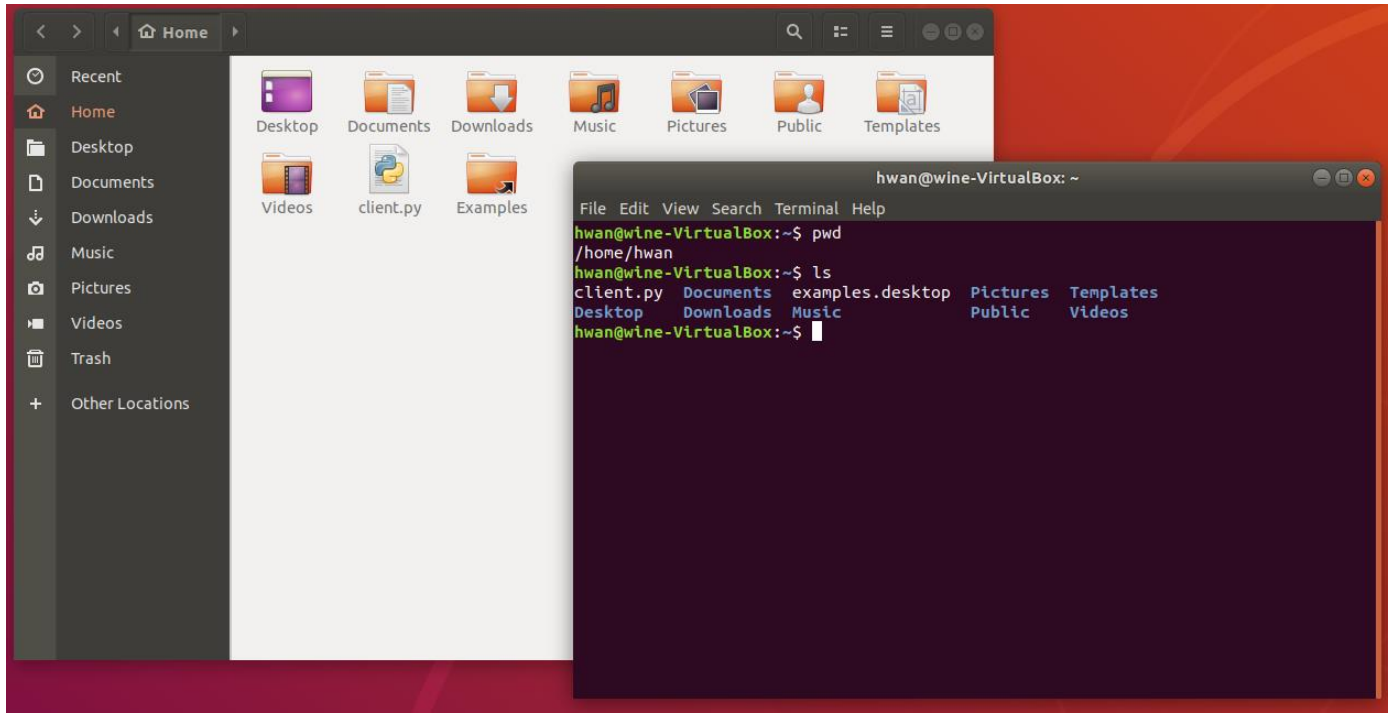
Linux-based OS tutorial

- Open [Terminal] with Ctrl+Alt+T
- When you open the terminal, the default directory is here.



Linux-based OS tutorial

- Default Directory
  - When you open new Terminal, default directory is /home/[username]
  - a.k.a. **home directory**, denoted by **~**
  - You can check current directory with command [pwd]
  - [ls] shows files in your current directory



Linux-based OS tutorial

Linux command

- [ls] : show the list
- [cd] : enter a folder
  .. : previous folder
- [vi] : where you code
- [sudo] : Super-User-DO , programs to be executed as a super user

- Copy and paste in Terminal : Ctrl+Shift+c / Ctrl+Shift+v

Computer Networks

Project environment setup - Node.js

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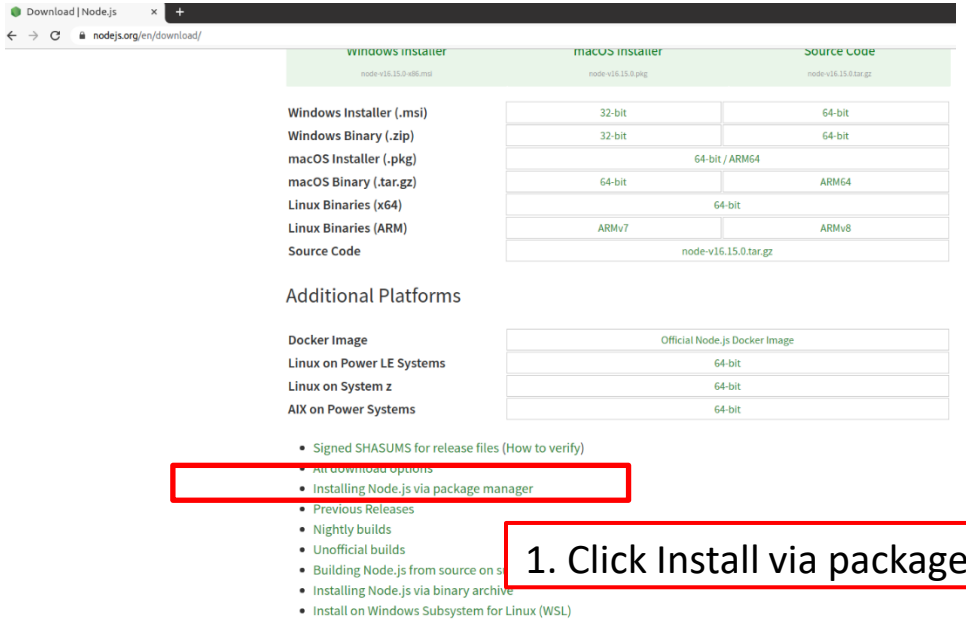
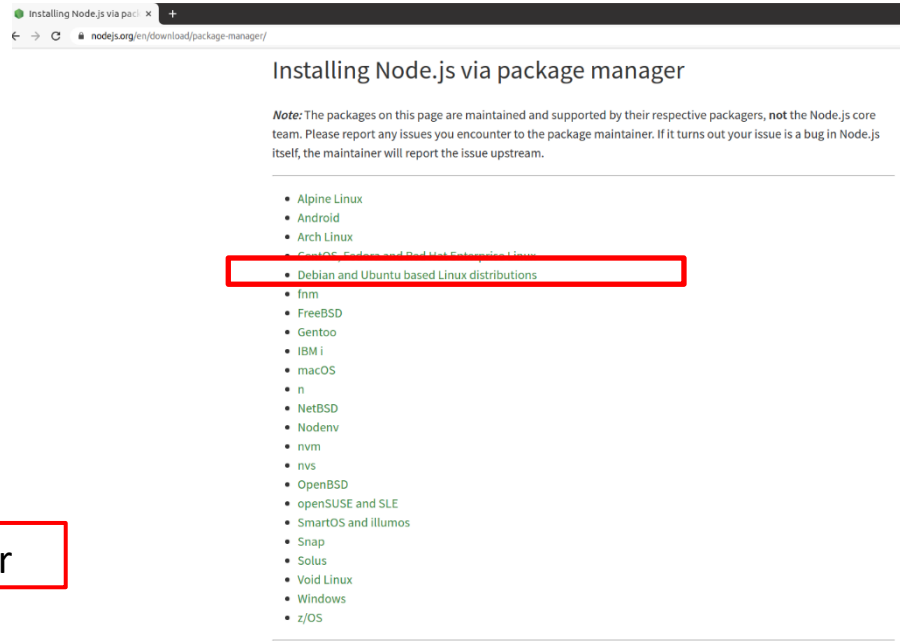
Node.js Installation

- Download Nodejs at https://nodejs.org/en/download/



1. Click Install via package manager

2. Click Debian and Ubuntu



Node.js Installation

Node.js Installation

Debian and Ubuntu based Linux distributions #

Node.js binary distributions are available from NodeSource.

3. Click Node.js binary distributions

4. Ctrl+c LTS version 16.x

Node.js v18.x:

```
# Using Ubuntu
curl -fsSL https://deb.nodesource.com/setup_18.x | sudo -E bash -
sudo apt-get install -y nodejs

# Using Debian, as root
curl -fsSL https://deb.nodesource.com/setup_18.x | bash -
apt-get install -y nodejs
```

Node.js v17.x:

```
# Using Ubuntu
curl -fsSL https://deb.nodesource.com/setup_17.x | sudo -E bash -
sudo apt-get install -y nodejs

# Using Debian, as root
curl -fsSL https://deb.nodesource.com/setup_17.x | bash -
apt-get install -y nodejs
```

Node.js v16.x:

```
# Using Ubuntu
curl -fsSL https://deb.nodesource.com/setup_16.x | sudo -E bash -
sudo apt-get install -y nodejs

# Using Debian, as root
curl -fsSL https://deb.nodesource.com/setup_16.x | bash -
apt-get install -y nodejs
```

Node.js v14.x:

```
# Using Ubuntu
curl -fsSL https://deb.nodesource.com/setup_14.x | sudo -E bash -
sudo apt-get install -y nodejs

# Using Debian, as root
curl -fsSL https://deb.nodesource.com/setup_14.x | bash -
apt-get install -y nodejs
```

5. Check installation by node—version command

```
(base) chang@chang-System-Product-Name:~$ node --version
v10.19.0
```