

Linux Installation on VirtualBox

Chung-Ang University

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VirtualBox

- **VirtualBox is a cross-platform virtualization application**
 - It extends the capabilities of your existing computer so that it can run multiple OSs, inside multiple virtual machines, at the same time.
- **Why Useful?**
 - Running multiple operating systems simultaneously
 - Easier software installations
 - Testing and disaster recovery
 - Infrastructure consolidation

VirtualBox

- **Recommended setting**

- disk \geq 25GB, RAM \geq 4GB, # CPU \geq 2
- The more the better. Especially for Disk capacity, because we will compile our own kernel in the following weeks.

- **Add port forwarding rule**

- protocol: TCP, host IP: 127.0.0.1
- host port: 2222, guest port: 22

- **Use Shared folders for file sharing between Linux VM and your host machine.**

VirtualBox

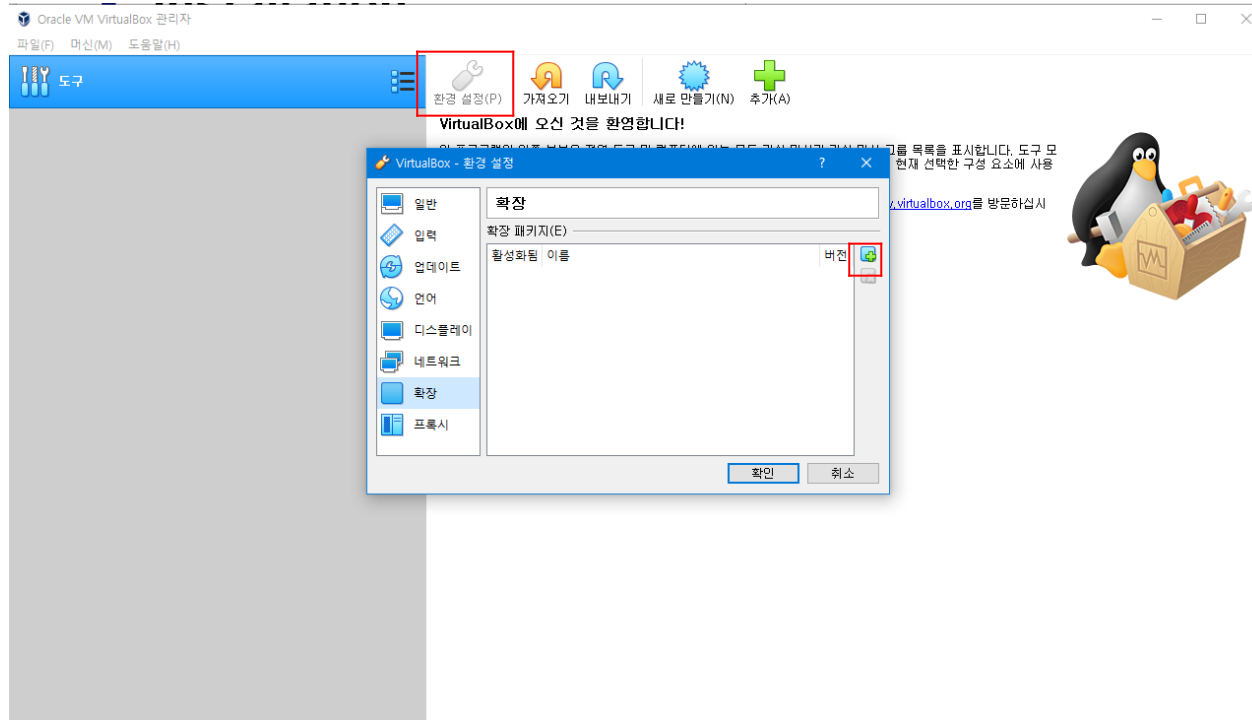
■ Installation

- Download VirtualBox 6.X.X platform package
- Download VirtualBox Extension Pack
- Source : <https://www.virtualbox.org/wiki/Downloads>



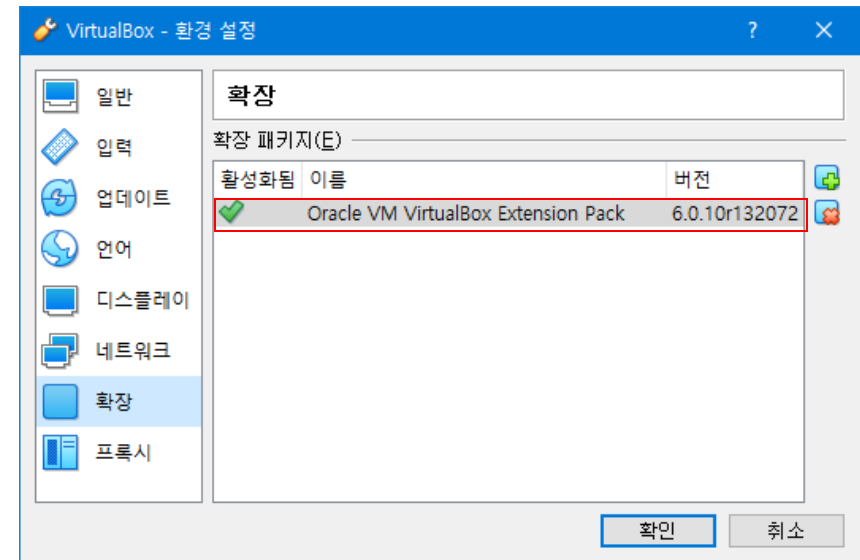
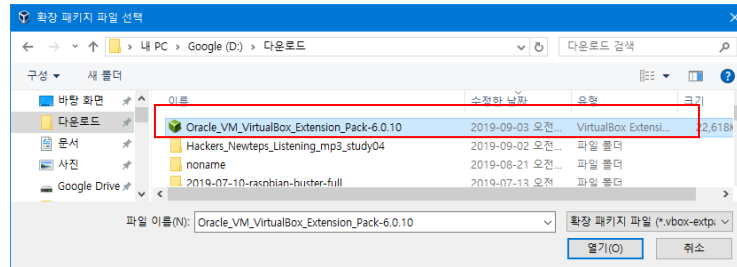
VirtualBox

- Environment setting
 - Install VirtualBox Extension Pack



VirtualBox

- Environment setting
 - Install VirtualBox Extension Pack

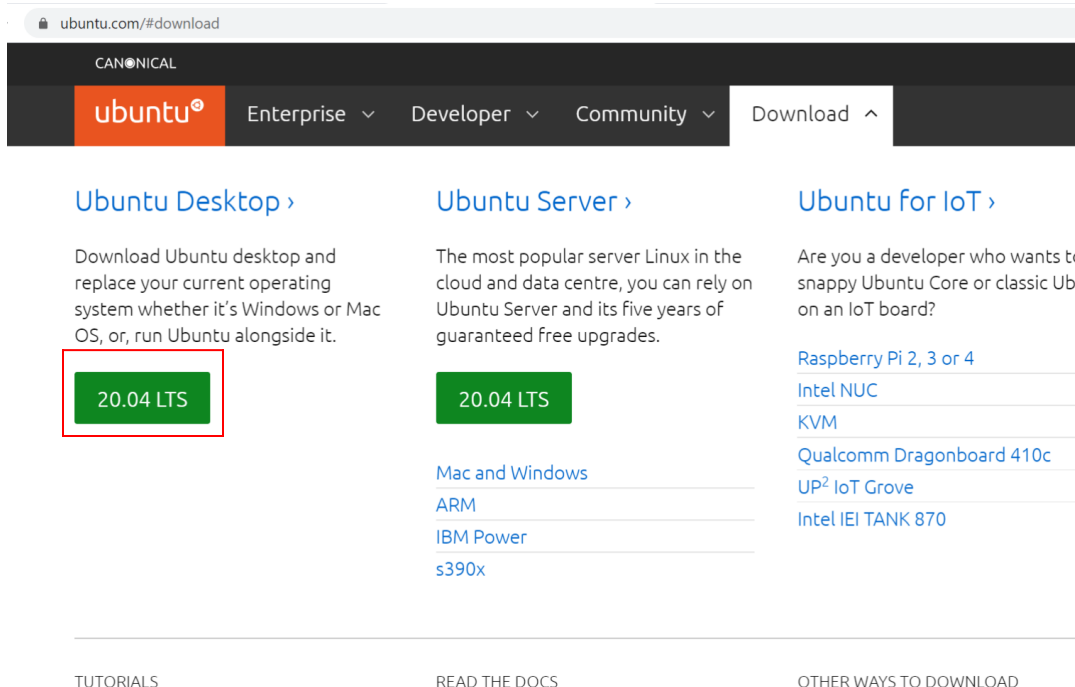


Linux install on VirtualBox

■ Preparations

- Install VirtualBox 6.X.X
- Download Ubuntu 20.04 image file
- Unable Hyper-V

■ Download Ubuntu 20.04 image file



The screenshot shows the Ubuntu download page. The navigation bar includes the Canonical logo, the Ubuntu logo, and links for Enterprise, Developer, Community, and Download. The main content area is divided into three columns: Ubuntu Desktop, Ubuntu Server, and Ubuntu for IoT. The Ubuntu Desktop column has a green button labeled '20.04 LTS' which is highlighted with a red box. The Ubuntu Server column also has a green button labeled '20.04 LTS'. The Ubuntu for IoT column lists various IoT boards and provides links to download images for them. At the bottom, there are links for Tutorials, Read the Docs, and Other ways to download.

ubuntu.com/#download

CANONICAL

ubuntu® Enterprise ▾ Developer ▾ Community ▾ Download ▴

Ubuntu Desktop >

Download Ubuntu desktop and replace your current operating system whether it's Windows or Mac OS, or, run Ubuntu alongside it.

20.04 LTS

Ubuntu Server >

The most popular server Linux in the cloud and data centre, you can rely on Ubuntu Server and its five years of guaranteed free upgrades.

20.04 LTS

Mac and Windows
ARM
IBM Power
s390x

Ubuntu for IoT >

Are you a developer who wants to snappy Ubuntu Core or classic Ubu on an IoT board?

Raspberry Pi 2, 3 or 4
Intel NUC
KVM
Qualcomm Dragonboard 410c
UP² IoT Grove
Intel IEI TANK 870

TUTORIALS READ THE DOCS OTHER WAYS TO DOWNLOAD

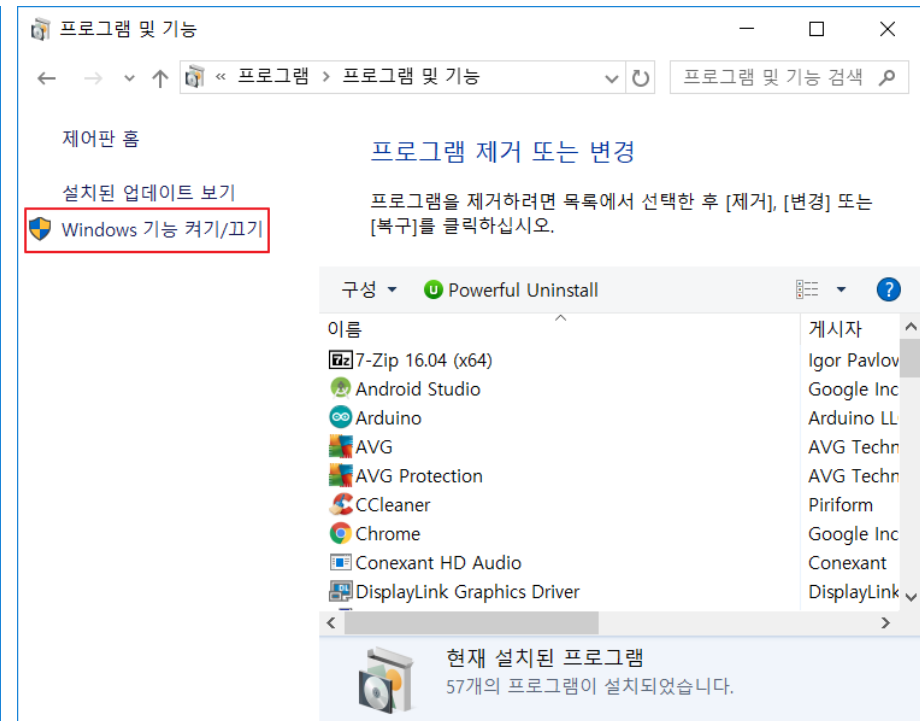
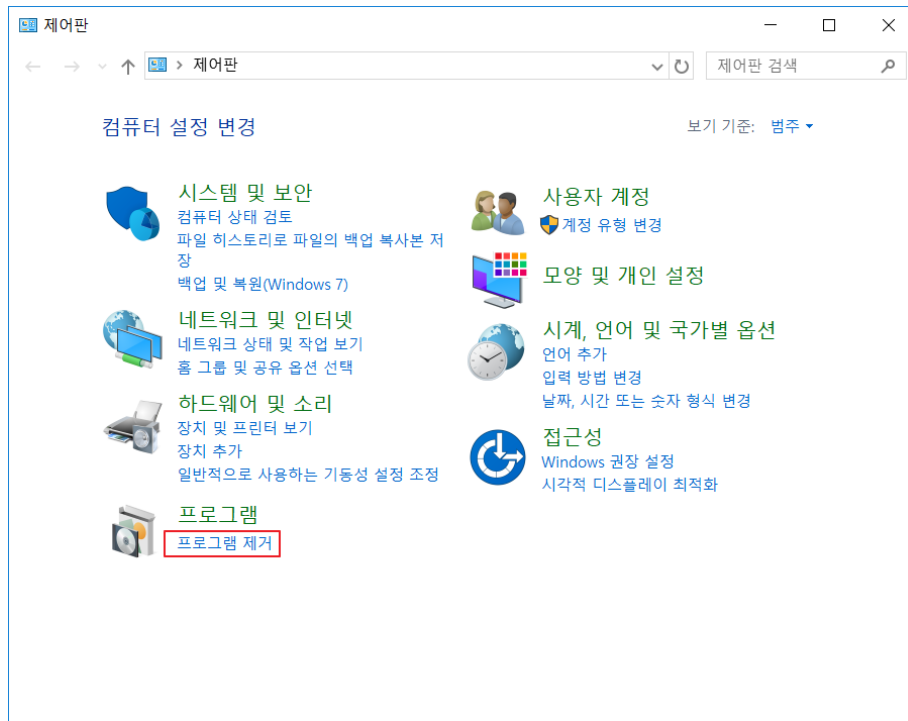
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■ Unable Hyper-V

- This is an **optional** configuration for Windows users.
- Before Windows 10 1803 version and VirtualBox 6.0 were released, the Hyper-V functionality and VirtualBox virtual machine cannot run at the same time.
- However, if you are using the latest version of Windows 10 and VirtualBox, the limitation is gone.
- As a result, this configuration is only for the users that use old version softwares.
- You can check the [changelog of VirtualBox](#) to know more details

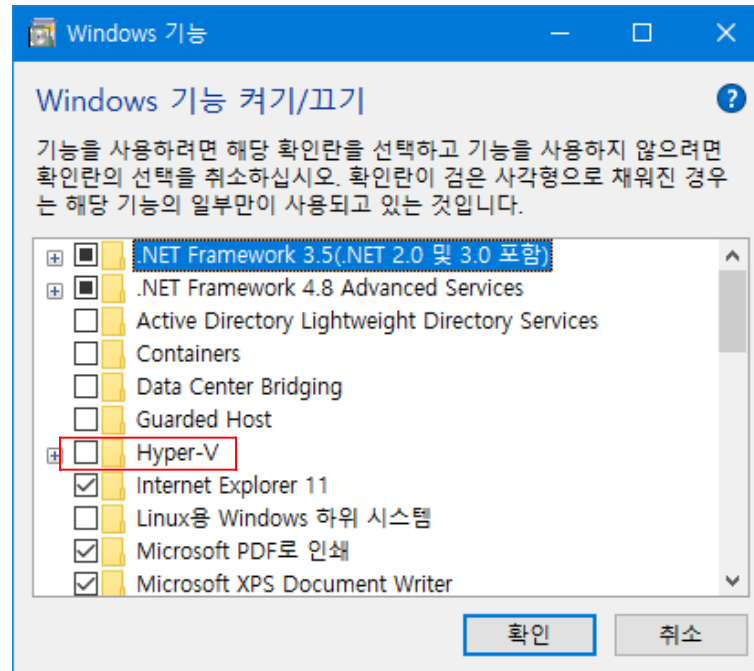
Linux install on VirtualBox

- Unable Hyper-V
 - Unable Hyper-V



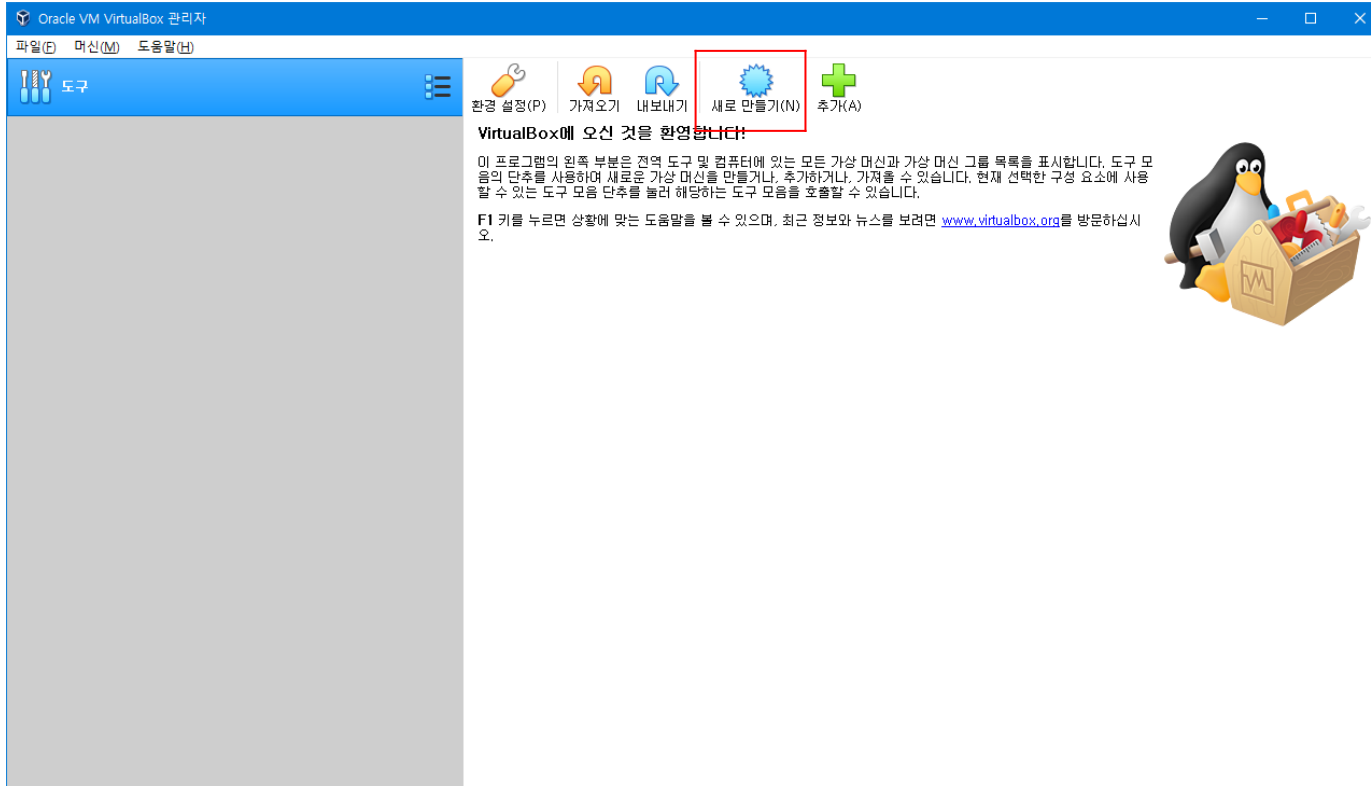
Linux install on VirtualBox

- Unable Hyper-V
 - Unable Hyper-V



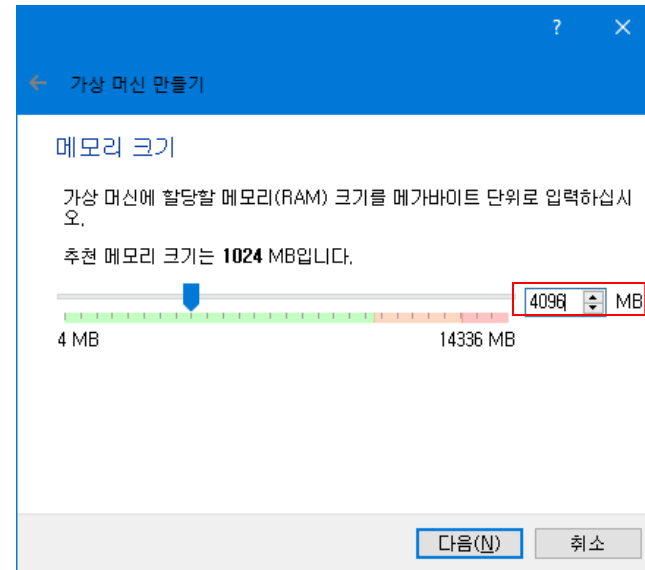
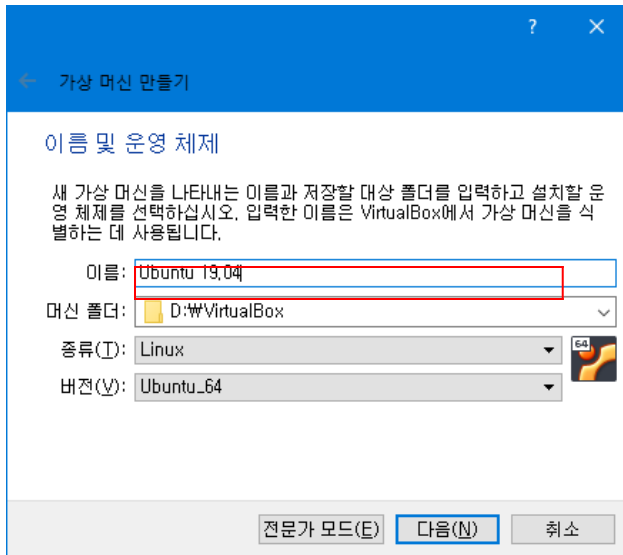
Linux install on VirtualBox

- Create Virtual Machine



Linux install on VirtualBox

■ Create Virtual Machine



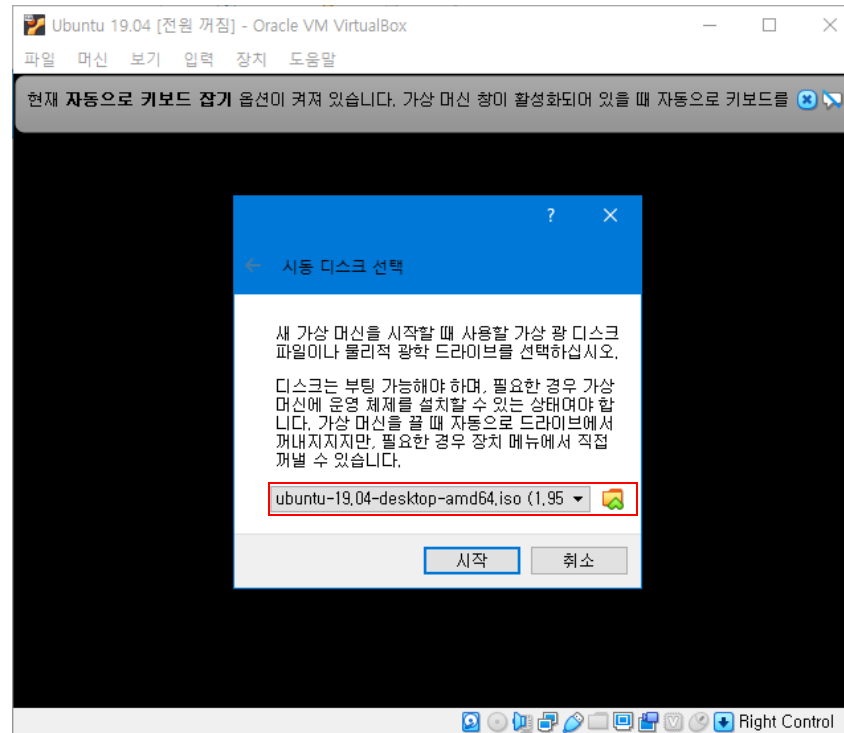
Linux install on VirtualBox

■ Create Virtual Machine



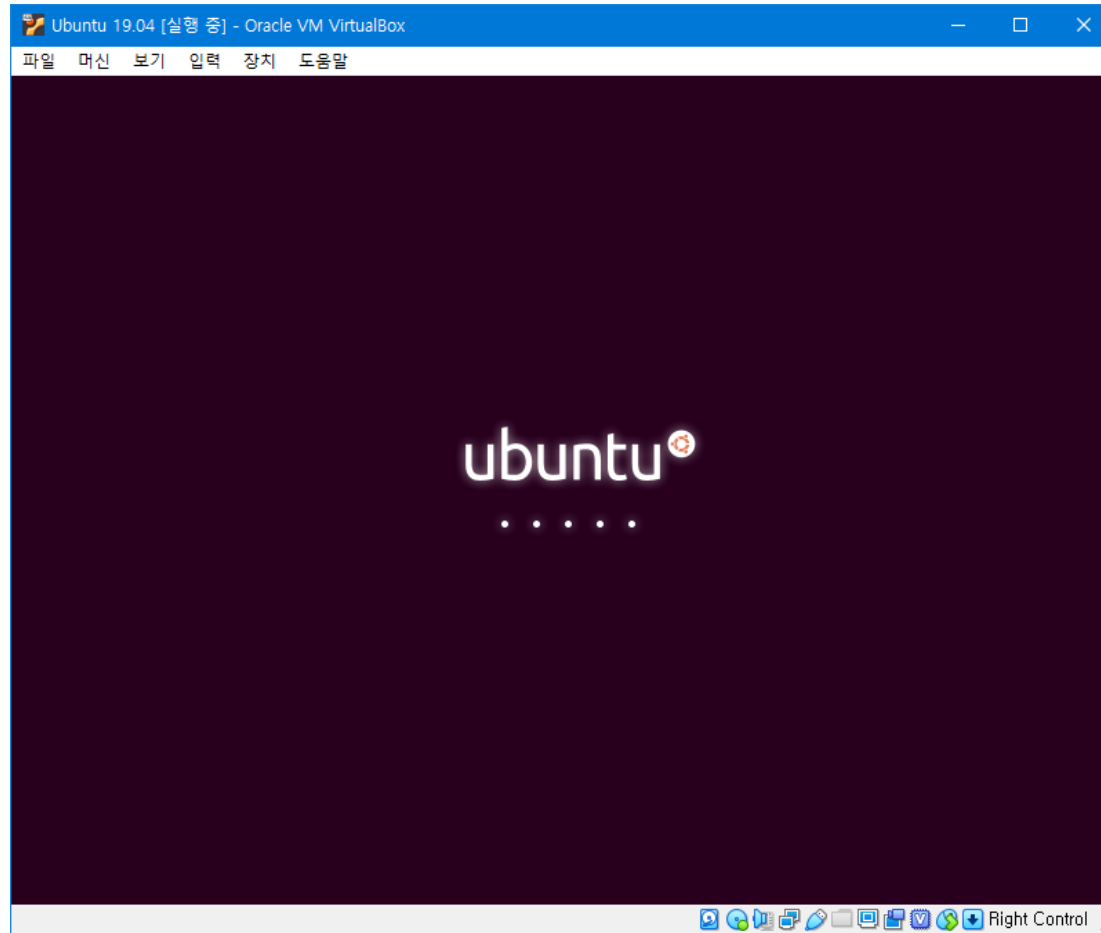
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- Insert Ubuntu iso file



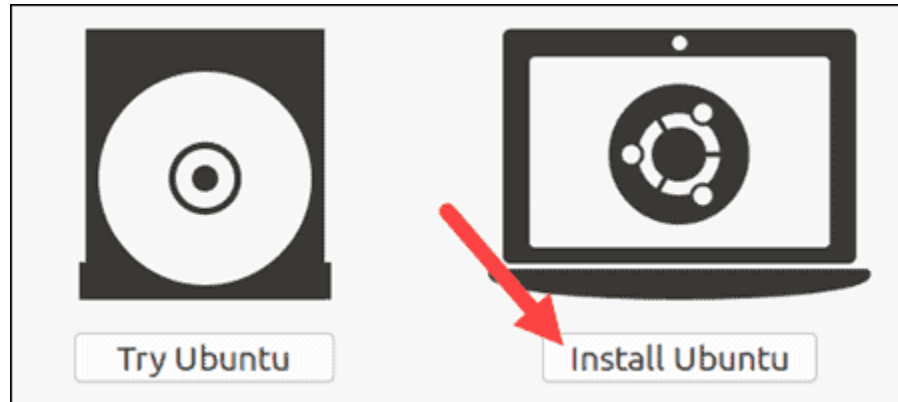
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■ Booting



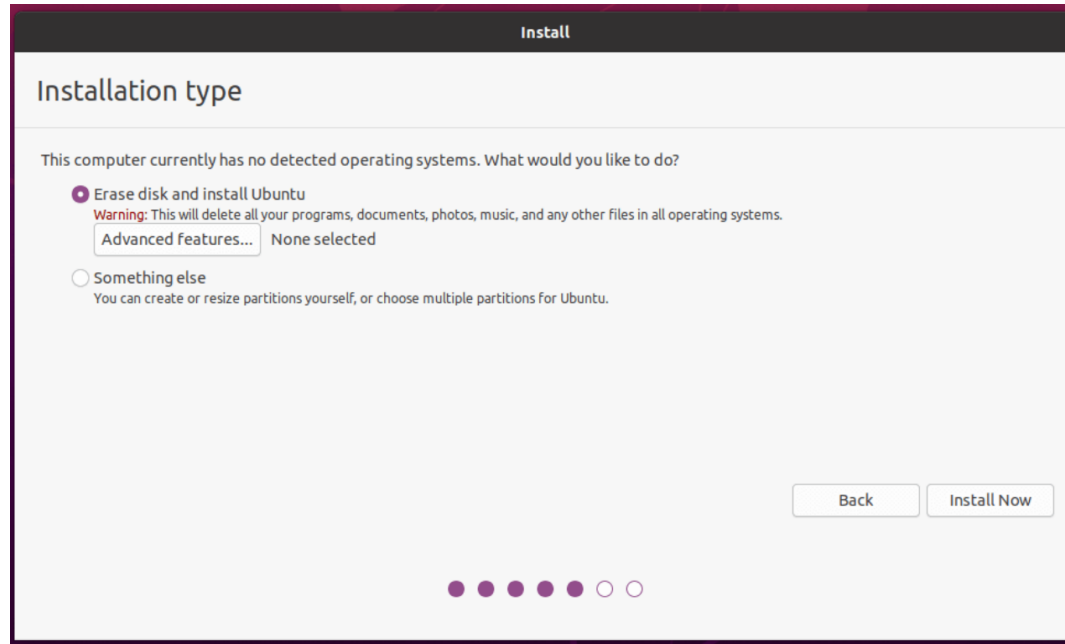
Linux install on VirtualBox

- Start to install



- Click the “Install Ubuntu” button
- There are some personal configuration options that Ubuntu ask you to choose, which is not that important
- The only configuration we should pay attention to is “where to install the OS”
- (see next slide)

Linux install on VirtualBox



- We choose the “Erase disk and install Ubuntu” option here because we are using a new virtual machine
- If you plan to install Ubuntu on your host machine directly, please make sure you choose the right disk
- Some tutorials online may tell you to create disk partition for root, swap mount point. You do not need to do that unless you know what you really want