

실습 환경 구축

백윤철

실습 환경 구축 개요


- Ubuntu on VirtualBox on Windows
- VirtualBox Download
- Ubuntu Download
- Install & Test
- Guest Addition

Version 이슈

- 최신 버전을 쓰는 것이 무조건 좋지는 않다.
 - 작동, 호환, 성능 이슈
 - 낮은 버전으로도 C programming, UNIX 실습 구축에 아무런 문제가 없음
- VirtualBox
 - 6.1
 - 6.1.32 (6.1.42)
 - 7.0.6
- Ubuntu
 - 18.04
 - 20.04.1
 - 21.10
 - 22.04

VirtualBox Download

- www.virtualbox.org



VirtualBox

Welcome to VirtualBox.org!

VirtualBox is a powerful x86 and AMD64/Intel64 **virtualization** product for enterprise as well as home use. Not only is VirtualBox an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 3. See "[About VirtualBox](#)" for an introduction.

Presently, VirtualBox runs on Windows, Linux, macOS, and Solaris hosts and supports a large number of **guest operating systems** including but not limited to Windows (NT 4.0, 2000, XP, Server 2003, Vista, Windows 7, Windows 8, Windows 10), DOS/Windows 3.x, Linux (2.4, 2.6, 3.x and 4.x), Solaris and OpenSolaris, OS/2, and OpenBSD.

VirtualBox is being actively developed with frequent releases and has an ever growing list of features, supported guest operating systems and platforms it runs on. VirtualBox is a community effort backed by a dedicated company: everyone is encouraged to contribute while Oracle ensures the product always meets professional quality criteria.

[About](#)
[Screenshots](#)
[Downloads](#)
[Documentation](#)
 [End-user docs](#)
 [Technical docs](#)
[Contribute](#)
[Community](#)

**Download
VirtualBox 7.0**

파일 이동 등에 문제

VirtualBox Download

You may also like to take a look at our [frequently asked questions list](#).

VirtualBox older builds

The binaries in this section for VirtualBox before version 4.0 are all released under the VirtualBox Personal Use License. From VirtualBox 4.0, the Extension Pack is released under the VirtualBox Personal Use License. By downloading, you agree to the terms and conditions of the license.

- [VirtualBox older builds](#)

VirtualBox Download VirtualBox (Old Builds)

- [VirtualBox 7.0](#) (*active maintenance*)
- [VirtualBox 6.1](#) (*active maintenance*)
- [VirtualBox 6.0](#) (*no longer supported, support ended 2020/07*)
- [VirtualBox 5.2](#) (*no longer supported, support ended 2020/07*)
- [VirtualBox 5.1](#) (*no longer supported, support ended 2018/04*)
- [VirtualBox 5.0](#) (*no longer supported, support ended 2017/05*)
- [VirtualBox 4.3](#) (*no longer supported, support ended 2015/12*)
- [VirtualBox 4.2](#) (*no longer supported, support ended 2015/12*)
- [VirtualBox 4.1](#) (*no longer supported, support ended 2015/12*)
- [VirtualBox 4.0](#) (*no longer supported, support ended 2015/12*)

ORACLE

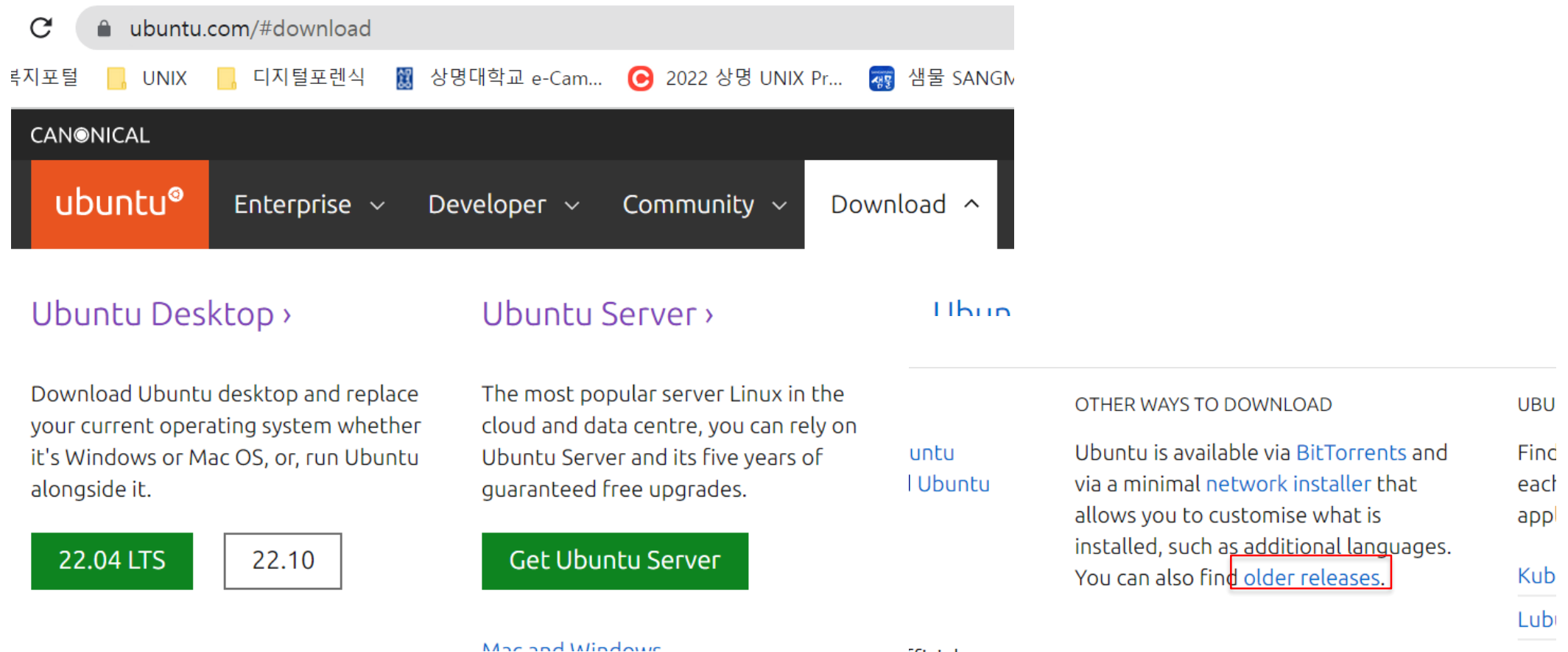
Download VirtualBox (Old Builds): VirtualBox

The Extension Packs in this section are released under the [VirtualBox Personal Use License](#). By downloading, you agree to the terms and conditions of the license.

- [6.1 SDK](#) (6.1.42)
- [VirtualBox 6.1.42](#) (*released January 17 2023*)
 - [Windows hosts](#)
 - [macOS / Intel hosts](#)
 - [Solaris hosts](#)
 - [Solaris 11 IPS hosts](#)
 - [Linux Hosts:](#)

Ubuntu Download

- Ubuntu.com



The screenshot shows the Ubuntu.com website's download page. At the top, the browser address bar displays 'ubuntu.com/#download'. Below the address bar, a navigation bar features 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 Cloud. The Ubuntu Desktop section describes downloading Ubuntu desktop and replacing the current operating system, with buttons for '22.04 LTS' and '22.10'. The Ubuntu Server section describes it as the most popular server Linux, with a 'Get Ubuntu Server' button. The Ubuntu Cloud section is partially visible. To the right, a section titled 'OTHER WAYS TO DOWNLOAD' explains that Ubuntu is available via BitTorrents and a network installer, and mentions 'older releases' (highlighted with a red box). A sidebar on the far right lists links for 'Find each app', 'Kub', and 'Lub'.

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.

22.04 LTS 22.10

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.

Get Ubuntu Server

Ubuntu Cloud >

Ubuntu Cloud is a fully managed, scalable, and secure cloud environment for your Ubuntu workloads.

OTHER WAYS TO DOWNLOAD

Ubuntu is available via [BitTorrents](#) and via a minimal [network installer](#) that allows you to customise what is installed, such as additional languages. You can also find [older releases](#).

UBUNTU

Find each app

Kub

Lub

Ubuntu Download

ubuntu  releases

These releases of Ubuntu are a

Standard support

LTS Releases

Ubuntu 22.04.2 LTS (Jammy Jellyfish) ›

Ubuntu 20.04.5 LTS (Focal Fossa) ›

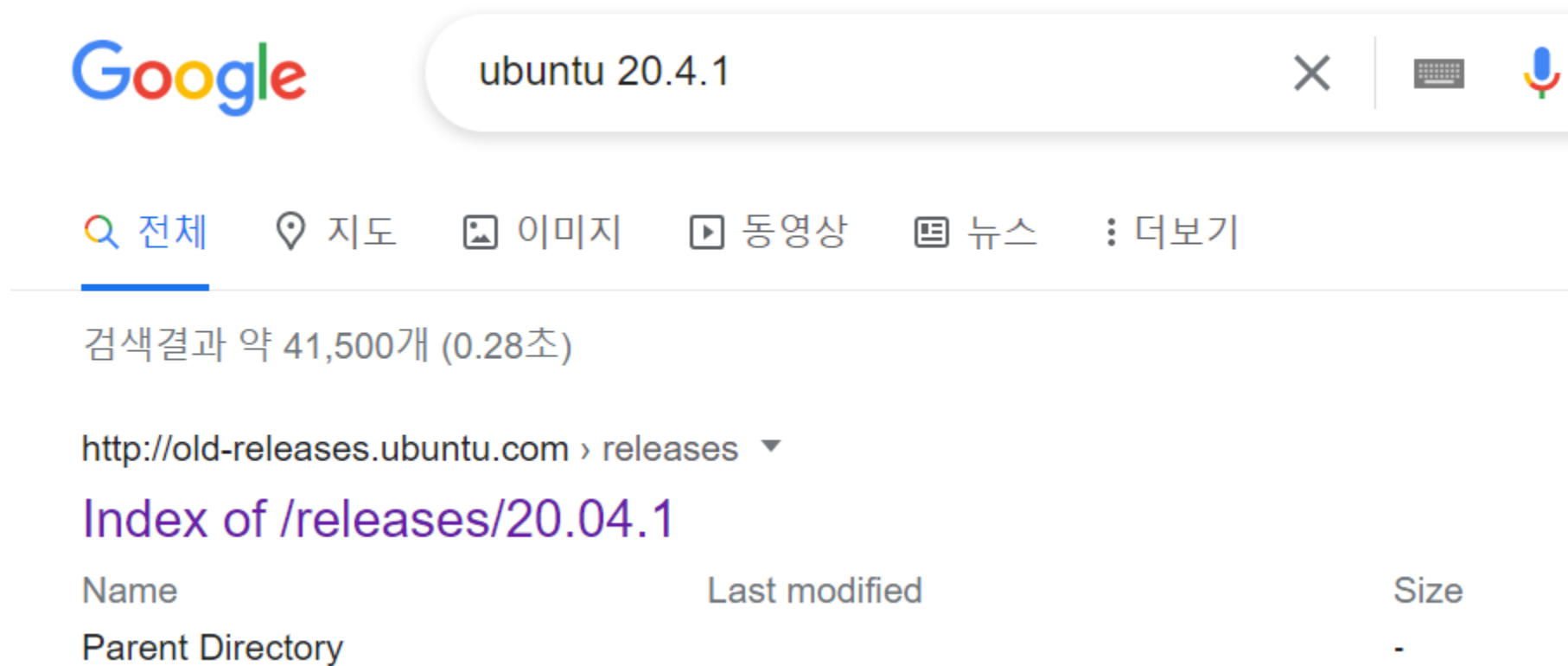
Ubuntu 18.04.6 LTS (Bionic Beaver) ›

Interim Releases

Ubuntu 22.10 (Kinetic Kudu) ›

install시 버튼이 안보이는 문제

Ubuntu Download



The screenshot shows a Google search interface. The search bar contains the text "ubuntu 20.4.1". Below the search bar, there are tabs for "전체" (All), "지도" (Maps), "이미지" (Images), "동영상" (Videos), "뉴스" (News), and "더보기" (More). The "전체" tab is selected. Below the tabs, the search results are displayed. The first result is from "http://old-releases.ubuntu.com" and is titled "Index of /releases/20.04.1". Below the title, there is a table with three columns: "Name", "Last modified", and "Size". The table contains one row with the text "Parent Directory" under the "Name" column and a hyphen "-" under the "Size" column.

Google ubuntu 20.4.1

전체 지도 이미지 동영상 뉴스 더보기








검색결과 약 41,500개 (0.28초)

http://old-releases.ubuntu.com › releases ▾

Index of /releases/20.04.1

Name	Last modified	Size
Parent Directory		-

Ubuntu Download

	ubuntu-20.04-preinstalled-server-armhf+raspi.img.xz.zsync	2020-04-23 17:14	1.2M
	ubuntu-20.04-preinstalled-server-armhf+raspi.manifest	2020-04-23 15:20	14K
	ubuntu-20.04.1-desktop-amd64.iso	2020-07-31 16:52	2.6G
	ubuntu-20.04.1-desktop-amd64.iso.torrent	2020-08-06 15:30	208K
	ubuntu-20.04.1-desktop-amd64.iso.zsync	2020-08-06 15:30	5.2M
	ubuntu-20.04.1-desktop-amd64.list	2020-07-31 16:52	20K
	ubuntu-20.04.1-desktop-amd64.manifest	2020-07-31 16:43	55K

다운로드된 파일들



ubuntu-20.04.1-
desktop-amd64.i
so



VirtualBox-6.1.42
-155177-Win.exe

VirtualBox 설치



설치 후 실행된 Virtualbox



가상 머신 만들기

- 메모리크기 조정

← 가상 머신 만들기

이름 및 운영 체제

이름: Ubaek

머신 폴더: C:\Users\Wyunba\VirtualBox VMs

종류(T): Linux

버전(V): Ubuntu (64-bit)

메모리 크기(M)

4 MB 8192 MB 4096 MB

하드 디스크

☐ 가상 하드 디스크를 추가하지 않음(D)

☒ 지금 새 가상 하드 디스크 만들기(C)

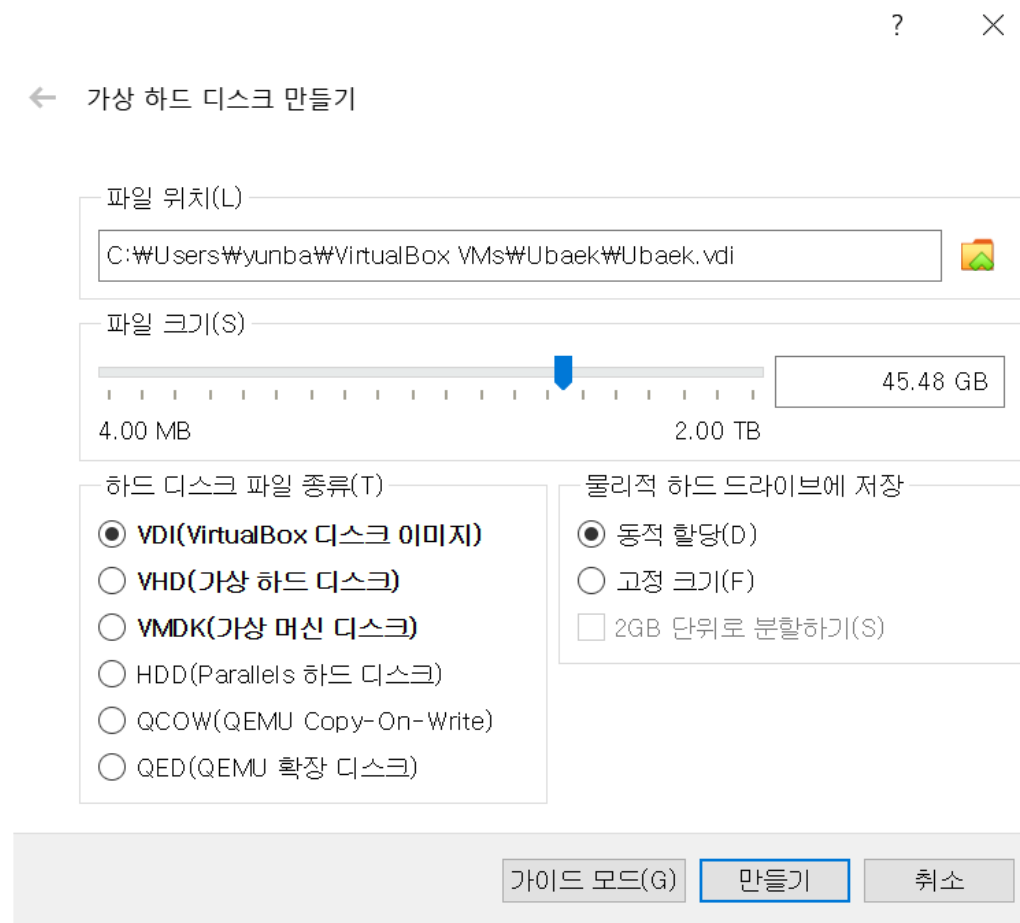
☐ 기존 가상 하드 디스크 파일 사용(U)

U20.vdi (일반, 40.31 GB)

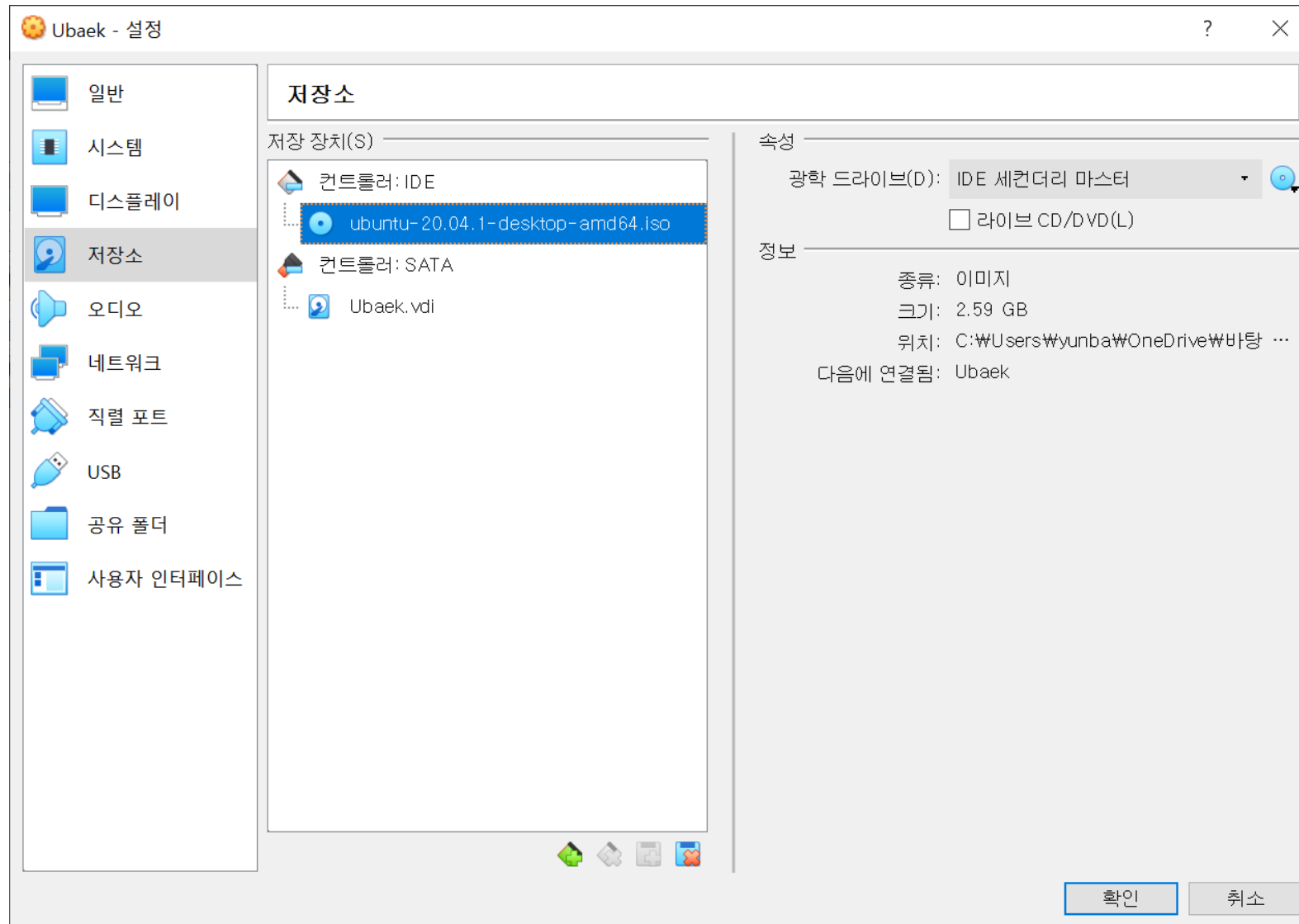
가이드 모드(G) 만들기 취소

가상 머신 만들기

- 가상 하드 디스크를 만들 때 default 크기인 10GB 보다 적당히 늘려 잡는 편이 추후 라이브러리를 많이 설치하거나 데이터가 많아지는 경우에 대비하기 용이함



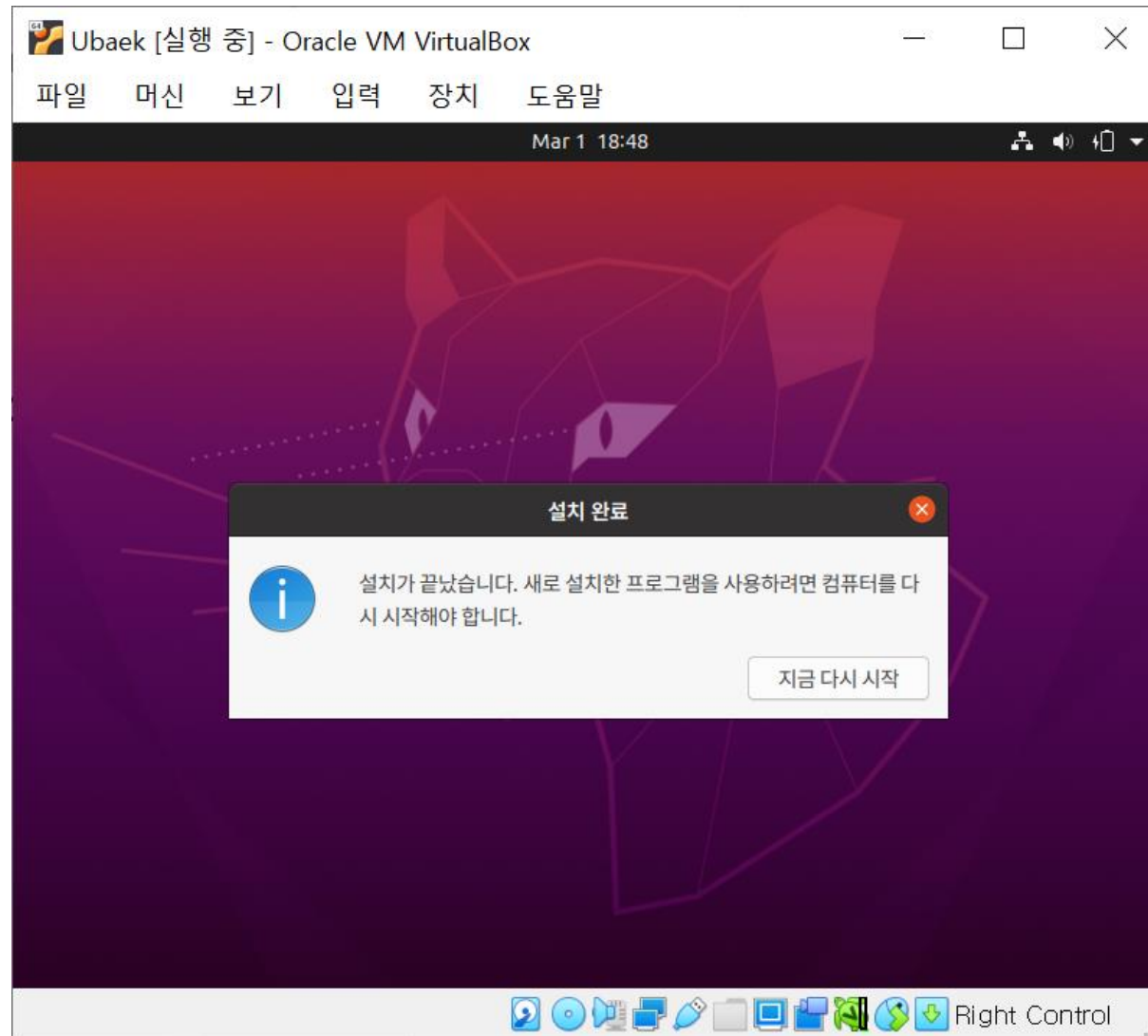
Ubuntu 설치



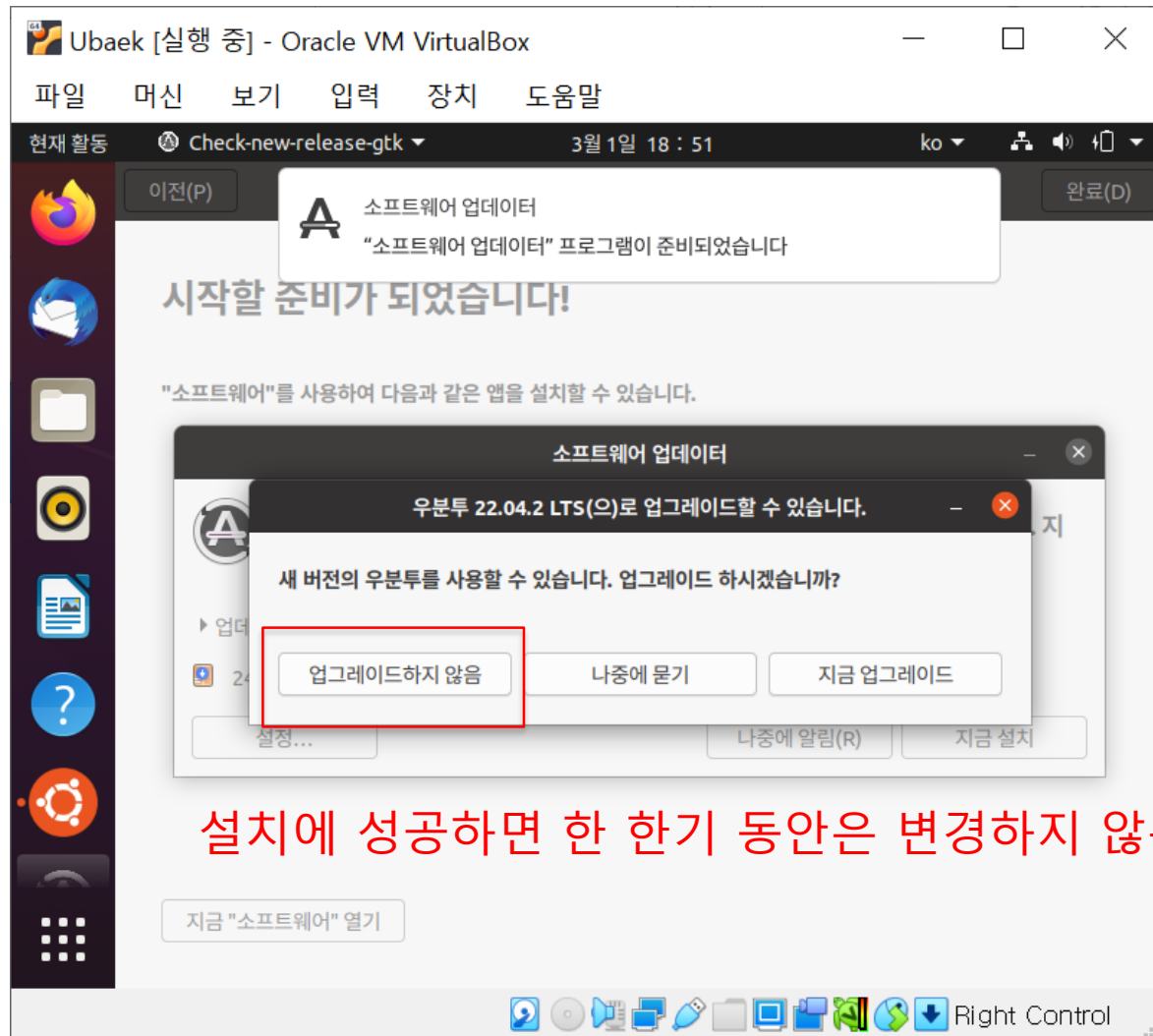
Ubuntu 설치



Ubuntu 설치



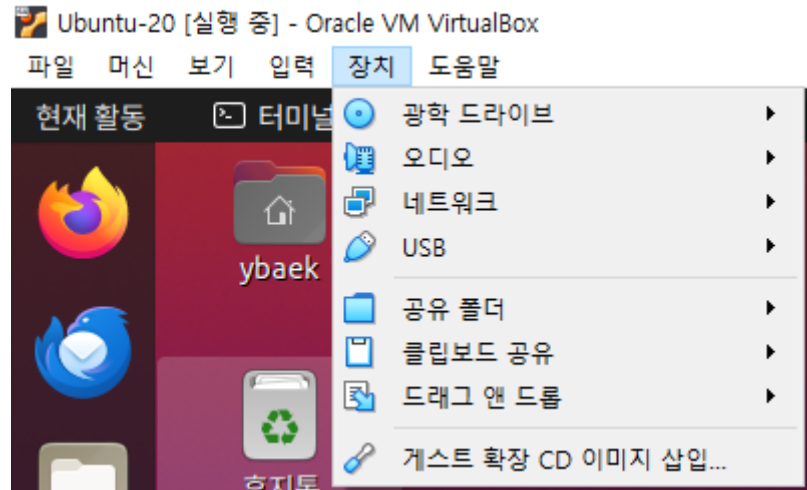
Ubuntu 설치



설치에 성공하면 한 한기 동안은 변경하지 않는 것이 편리함

Guest Addition

- 자동 사이즈 맞추기, 데이터 공유 등 편리함 추가



- `sudo apt install gcc`
- `sudo apt install make`
- `sudo apt install perl`

실습 환경 구축 정리

- VirtualBox Download and Install
- Ubuntu Download and Install