

과제01: 준비하기

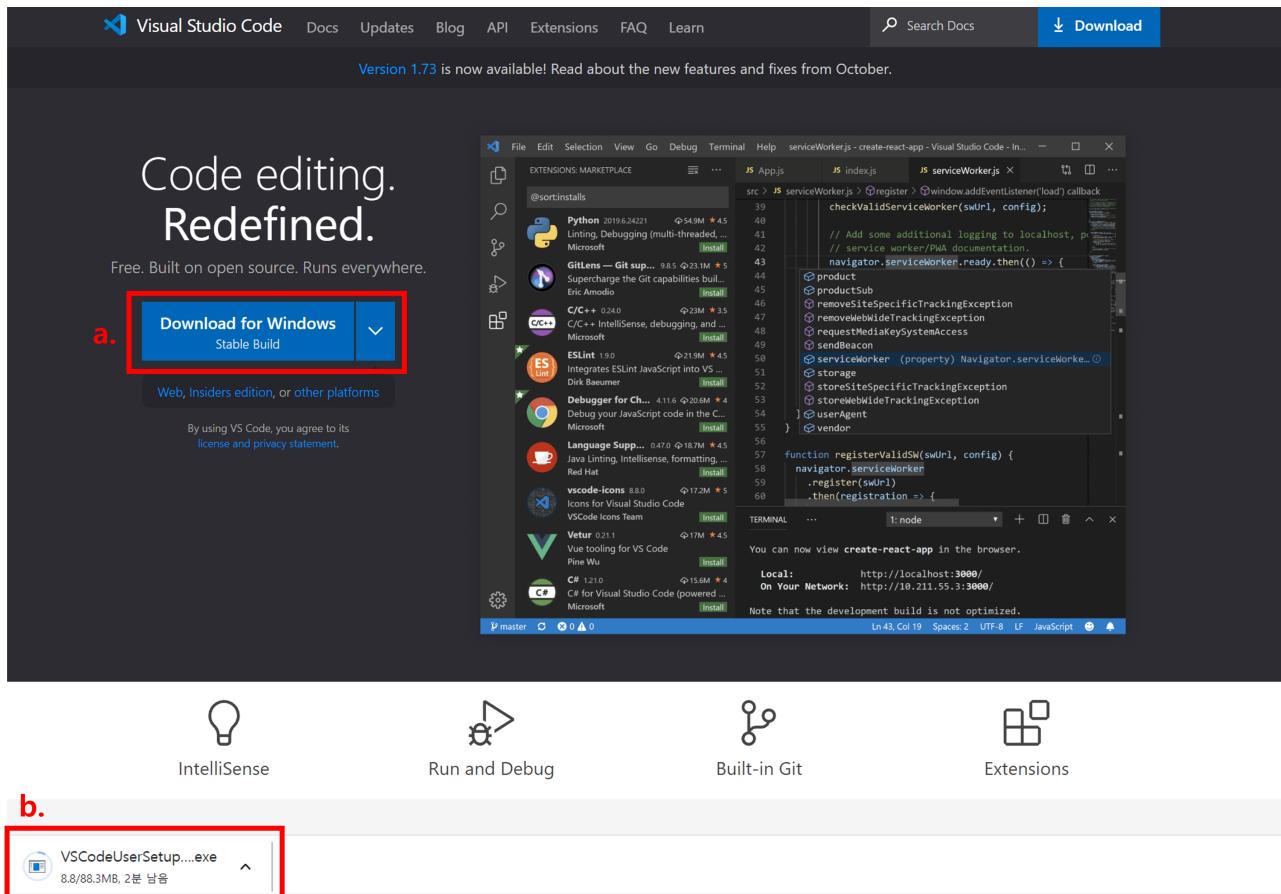
언어 데이터 처리 2022-11-14 장태준 [컴퓨터 공학부 2017-17018]

<https://github.com/jtjun/NLP/blob/main/hw01/result/hw01.md>

수업 시간에 소개된 다음 소프트웨어들을 설치하여 컴퓨팅 환경을 구축한다.

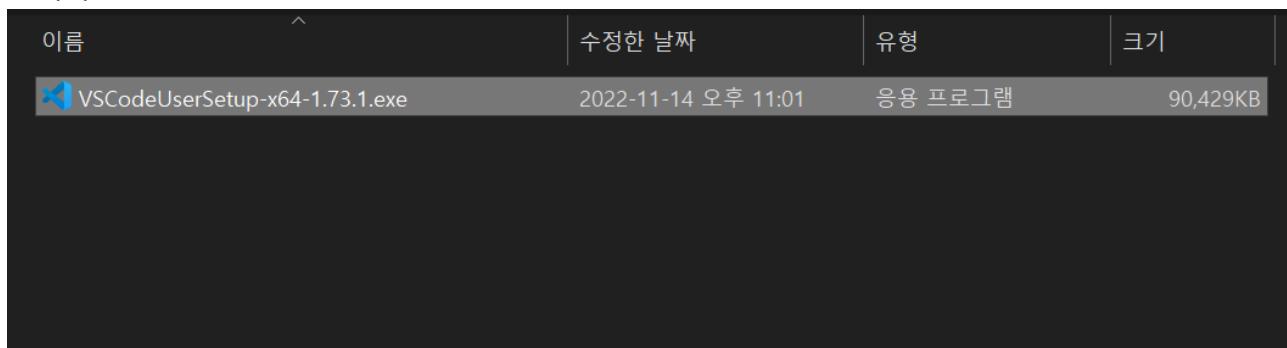
A. Visual Studio Code

1. Visual Studio Code 다운로드



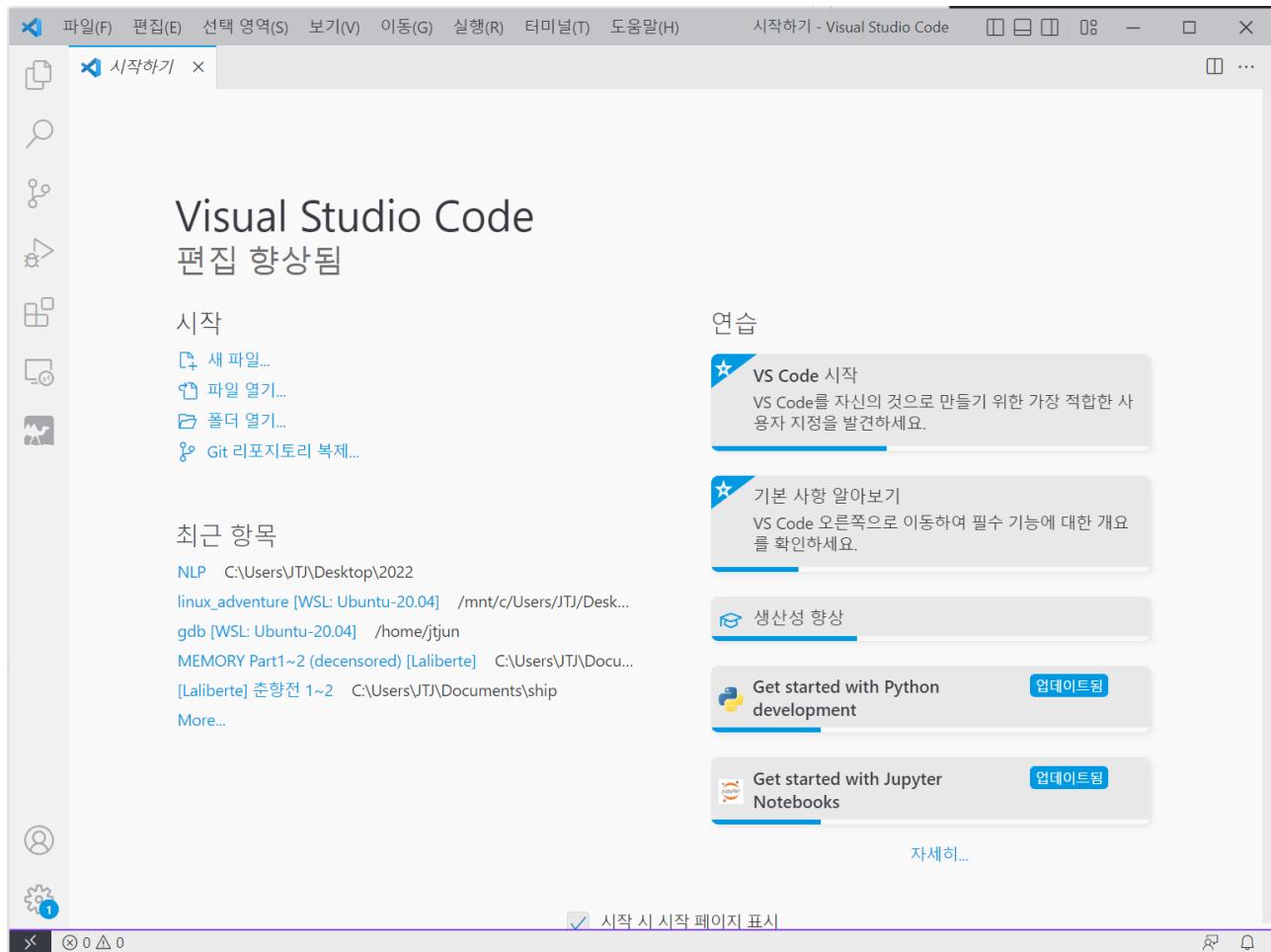
- a. [https://code.visualstudio.com/ 접속 후](https://code.visualstudio.com/)
- b. 운영체제에 맞는 설치 파일 다운로드

2. 설치파일 실행



- a. A-1. 에서 다운로드한 설치 파일을 실행
- b. 필요한 설정을 하며 설치

3. 설치 완료 후 확인



- 바로 가기 아이콘을 더블클릭하여 실행
-

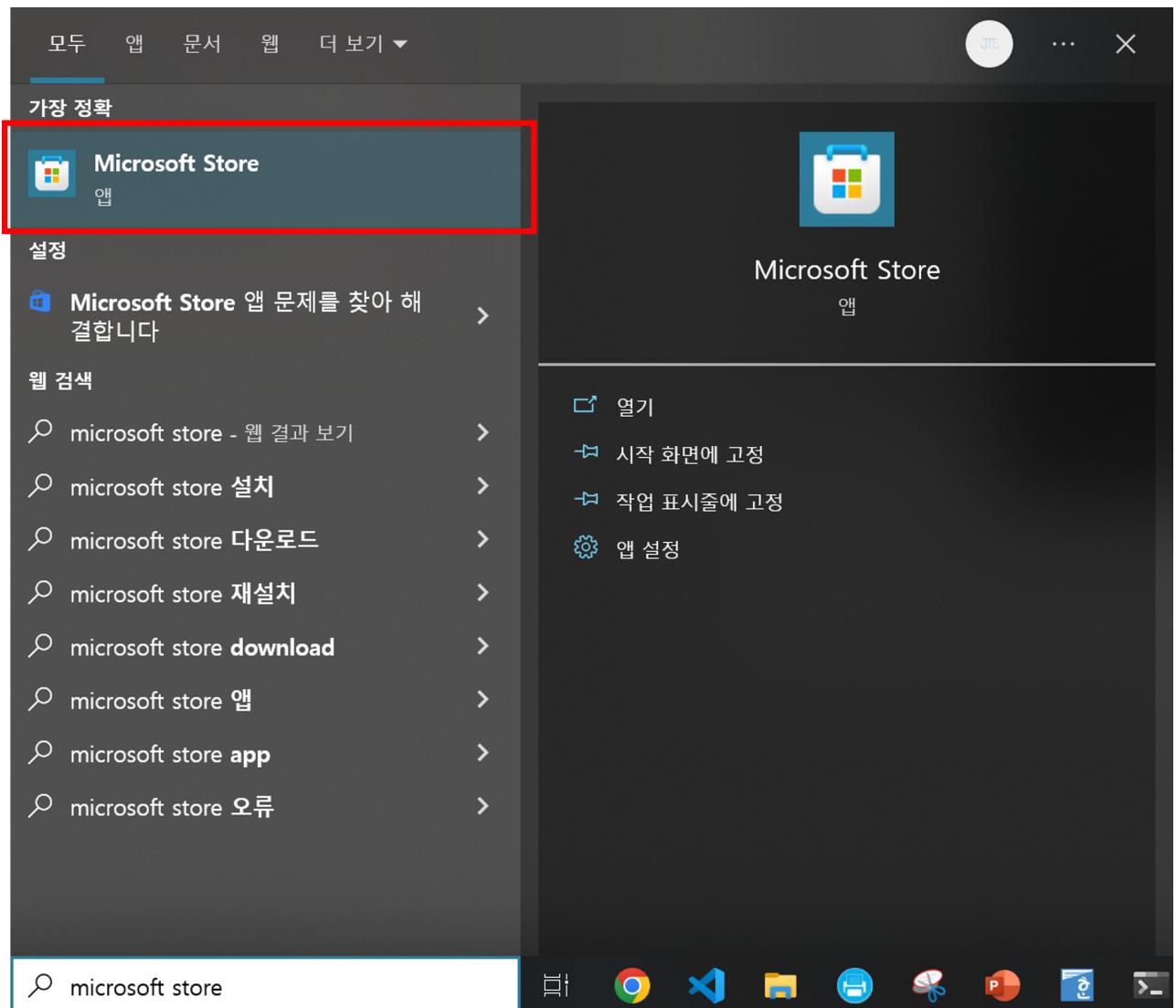
B. 명령행 도구

- Microsoft Windows: WSL 설치

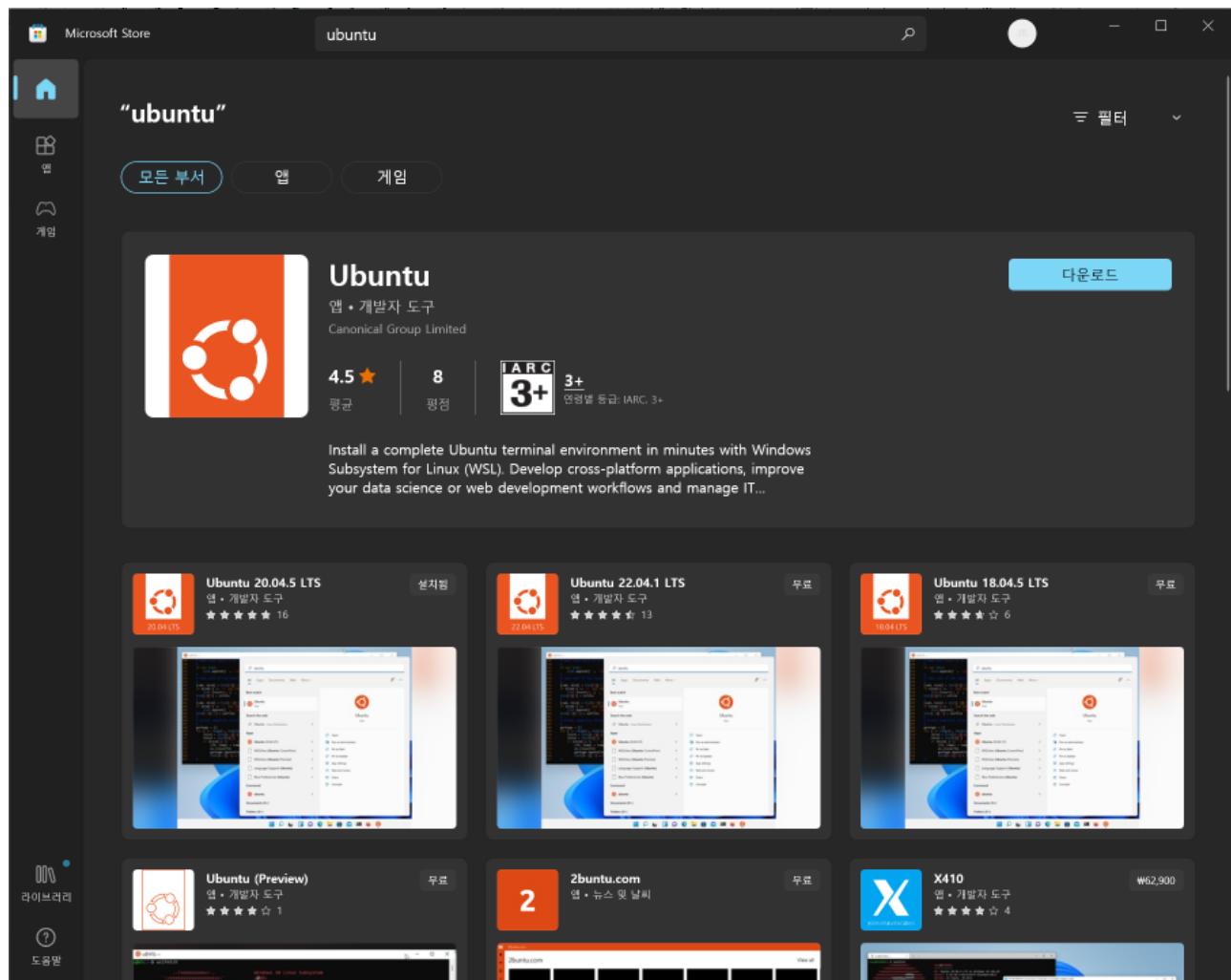
1. MS의 [WSL 설치 페이지](#)를 따라 WSL 설치

The screenshot shows a Microsoft Learn article page. At the top, there's a breadcrumb navigation: Learn / Windows / 개발 환경 / WSL /. To the right are icons for user profile, settings, and more. The main title is "WSL을 사용하여 Windows에 Linux 설치". Below it, a subtitle reads "아티클 · 2022. 11. 09. · 읽는 데 13분 걸림 · 기여자 8명" and a "피드백" button. The content starts with a paragraph about WSL allowing simultaneous access to Windows and Linux. It then has a section titled "필수 구성 요소" with a note about system requirements: "Windows 10 버전 2004 이상(빌드 19041 이상) 또는 Windows 11을 실행해야 합니다. 업데이트를 확인합니다." Below this is a heading "WSL 설치 명령" with a note about running PowerShell as administrator and using the command "wsl --install". A screenshot of a PowerShell window shows the command being typed. The final note says "새로 설치된 Linux 배포판을 처음 시작하면 콘솔 창이 열리고 파일의 압축이 풀리고 머신에 저장될 때까지 기다리라는 메시지가 표시됩니다. 이후의 모든 시작은 1초도 걸리지 않습니다."

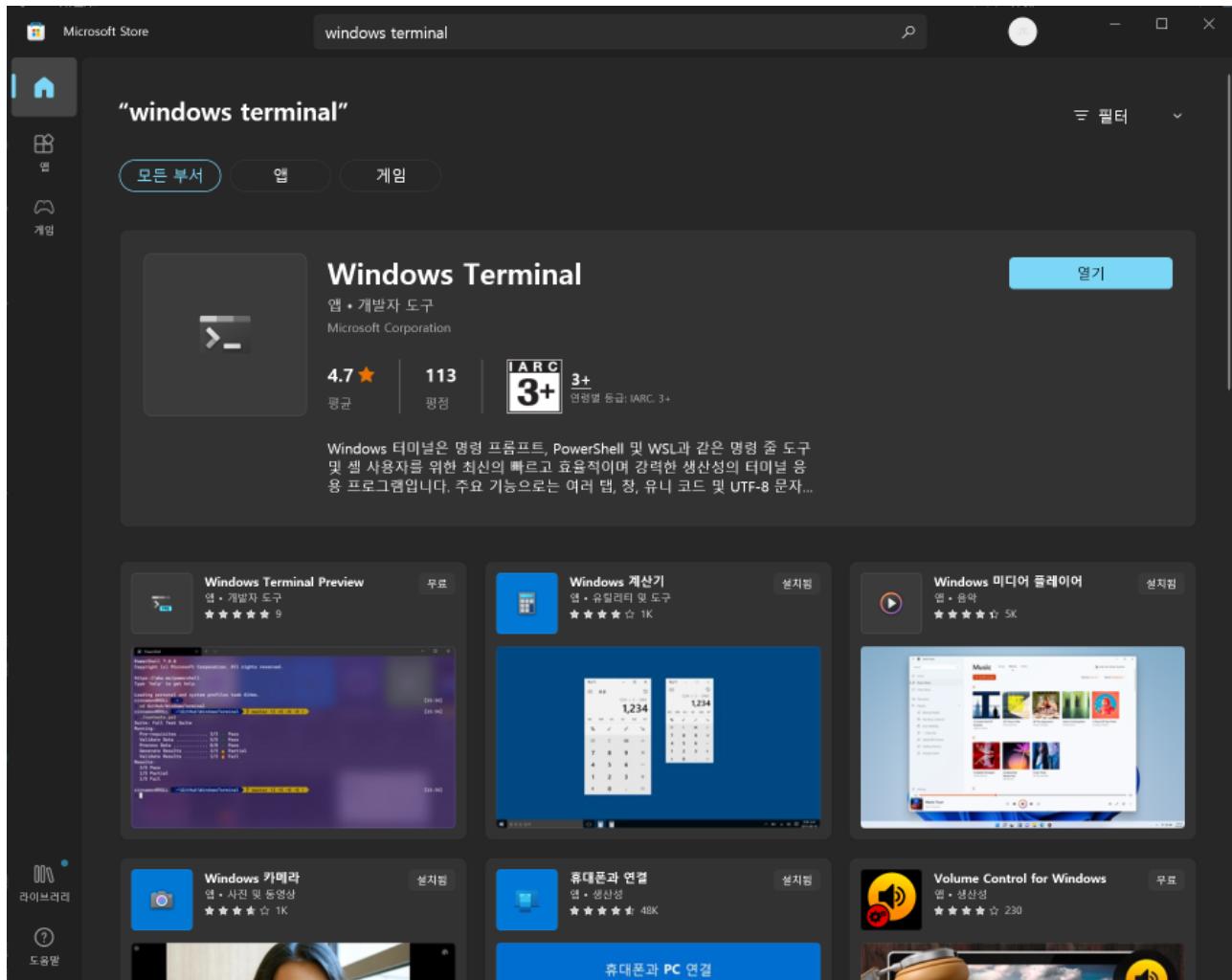
2. Windows 검색창에서 Microsoft Store 검색 후 실행



3. 검색창에 Ubuntu 검색 후 다운로드하여 설치



4. 검색창에 Windows Terminal 검색 후 다운로드하여 설치



5. Windows Terminal을 통해 WSL Ubuntu 실행

```

jtjun@JTJ-MacBook: ~
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.10.102.1-microsoft-standard-WSL2 x86_64)

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

System information as of Mon Nov 14 23:35:34 KST 2022

System load:  0.0          Processes:           8
Usage of /:   5.3% of 250.98GB  Users logged in:  0
Memory usage: 0%           IPv4 address for eth0: 172.30.234.118
Swap usage:   0%

0 updates can be applied immediately.

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

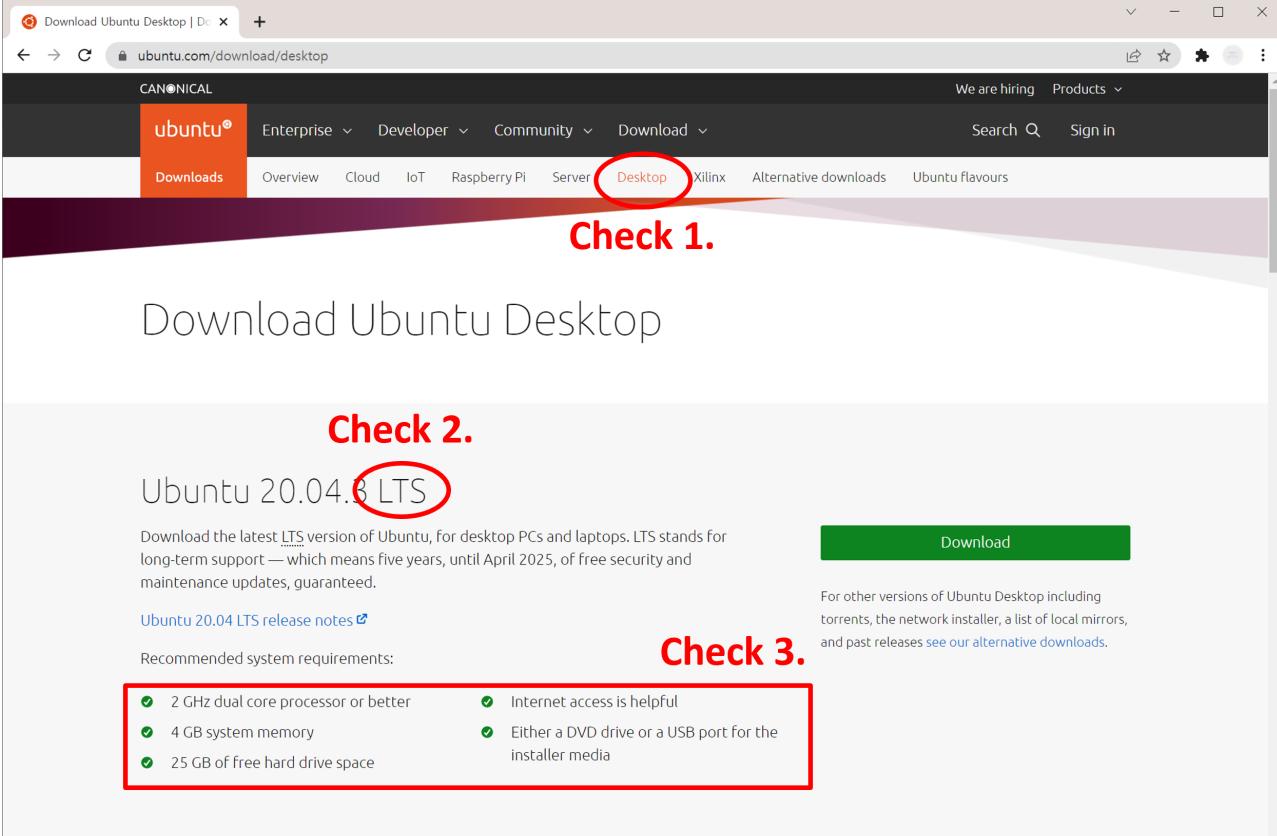
This message is shown once a day. To disable it please create the
/home/jtjun/.hushlogin file.
jtjun@JTJ-MacBook:~$ |

```

C. 가상 머신에 Ubuntu 설치

1. Ubuntu 다운로드

- a. Ubuntu 홈페이지에서 다운로드



The screenshot shows the Ubuntu download page. A red circle highlights the "Desktop" tab in the navigation bar. Below it, a large red box labeled "Check 1." contains the text "Download Ubuntu Desktop".

Check 2.

Ubuntu 20.04.6 LTS

Download the latest LTS version of Ubuntu, for desktop PCs and laptops. LTS stands for long-term support — which means five years, until April 2025, of free security and maintenance updates, guaranteed.

[Ubuntu 20.04 LTS release notes](#)

Recommended system requirements:

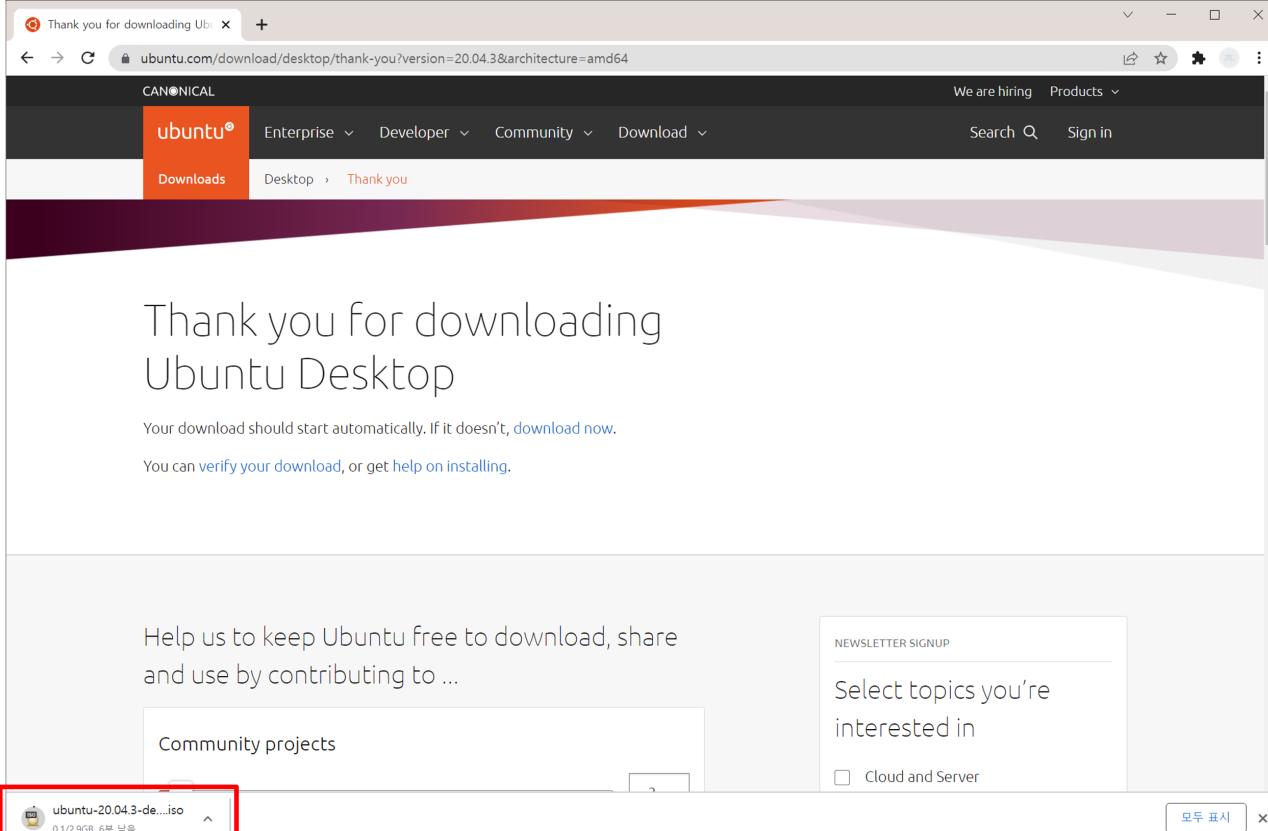
- 2 GHz dual core processor or better
- Internet access is helpful
- 4 GB system memory
- Either a DVD drive or a USB port for the installer media
- 25 GB of free hard drive space

Check 3.

For other versions of Ubuntu Desktop including torrents, the network installer, a list of local mirrors, and past releases see our [alternative downloads](#).

[Download](#)

- b. 기다리기



The screenshot shows the "Thank you for downloading Ubuntu" page. A red box highlights the "ubuntu-20.04.3-desktop-amd64.iso" file link in the download list at the bottom left.

Thank you for downloading Ubuntu Desktop

Your download should start automatically. If it doesn't, [download now](#).

You can [verify your download](#), or get [help on installing](#).

Help us to keep Ubuntu free to download, share and use by contributing to ...

Community projects

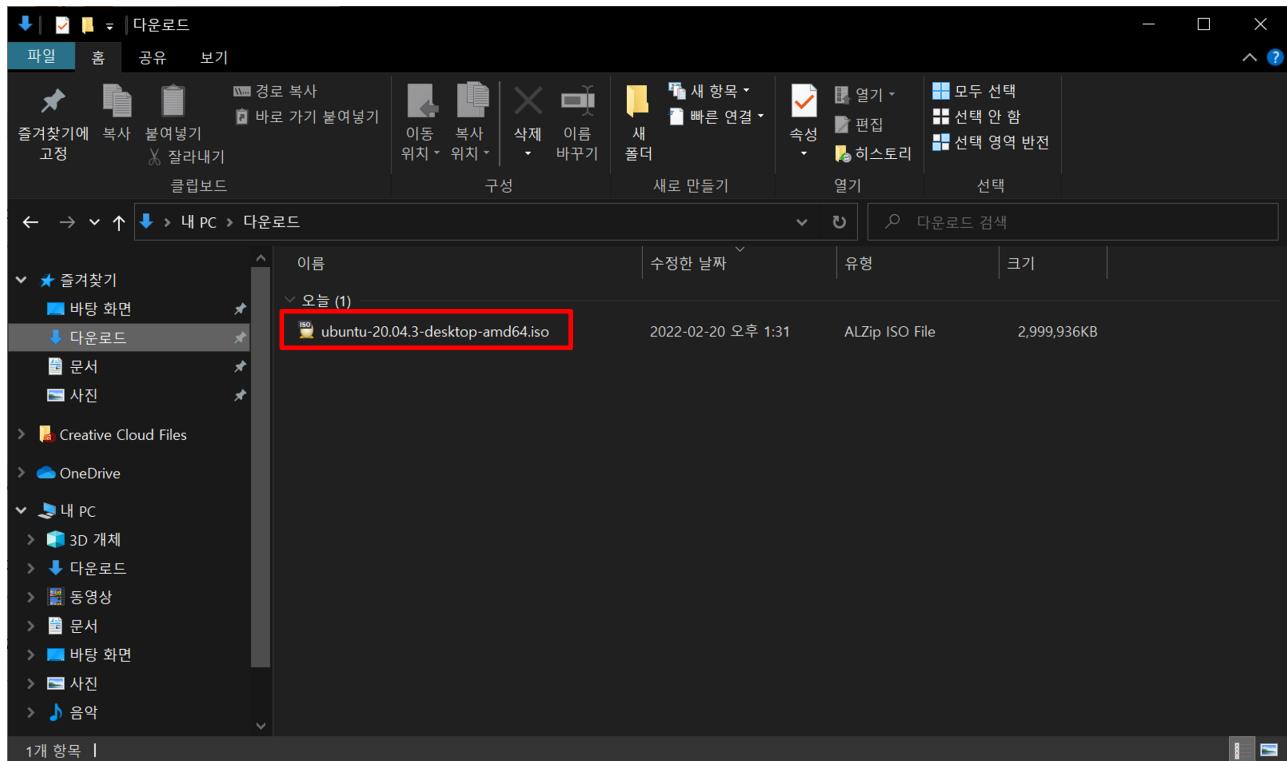
NEWSLETTER SIGNUP

Select topics you're interested in

Cloud and Server

[모두 표시](#)

- c. Ubuntu ISO 파일 확인하기



2. Virtual Box 다운로드

- a. Virtual Box 홈페이지에서 다운로드

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#). Please also use version 6.0 if you need to run VMs with software virtualization, as this has been discontinued in 6.1. Version 6.0 will remain supported until July 2020.

If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#). Please also use version 5.2 if you still need support for 32-bit hosts, as this has been discontinued in 6.0. Version 5.2 will remain supported until July 2020.

VirtualBox 6.1.32 platform packages

- [Windows hosts](#)
- [OS X hosts](#)
- [Linux distributions](#)
- [Solaris hosts](#)
- [Solaris 11 IPS hosts](#)

The binaries are released under the terms of the GPL version 2.

See the [changelog](#) for what has changed.

You might want to compare the checksums to verify the integrity of downloaded packages. The SHA256 checksums should be favored as the MD5 algorithm must be treated as insecure!

- [SHA256 checksums](#), [MD5 checksums](#)

Note: After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

VirtualBox 6.1.32 Oracle VM VirtualBox Extension Pack

- [All supported platforms](#)

Support for USB 2.0 and USB 3.0 devices, VirtualBox RDP, disk encryption, NVMe and PXE boot for Intel cards. See [this chapter from the User Manual](#) for an introduction to this Extension Pack. The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#). Please install the same version extension pack as your installed version of VirtualBox.

VirtualBox 6.1.32 Software Developer Kit (SDK)

- [All platforms](#)

- b. 기다리기

VirtualBox Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#). Please also use version 6.0 if you need to run VMs with software virtualization, as this has been discontinued in 6.1. Version 6.0 will remain supported until July 2020.

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VirtualBox 6.1.32 platform packages

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- SHA256 checksums, MD5 checksums

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- c. 설치 파일 실행 및 설치

Welcome to the Oracle VM VirtualBox 6.1.32 Setup Wizard

The Setup Wizard will install Oracle VM VirtualBox 6.1.32 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.

이 앱이 디바이스를 변경할 수 있도록 허용하시겠어요?

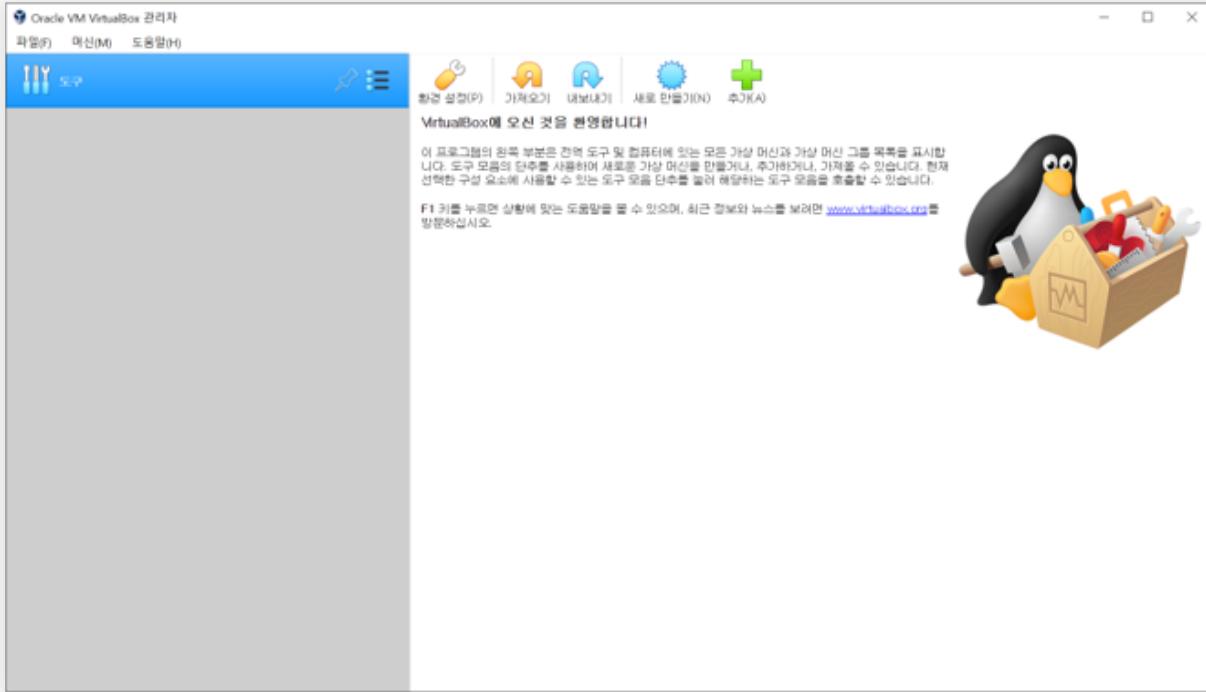
“예” 선택

Version 6.1.32

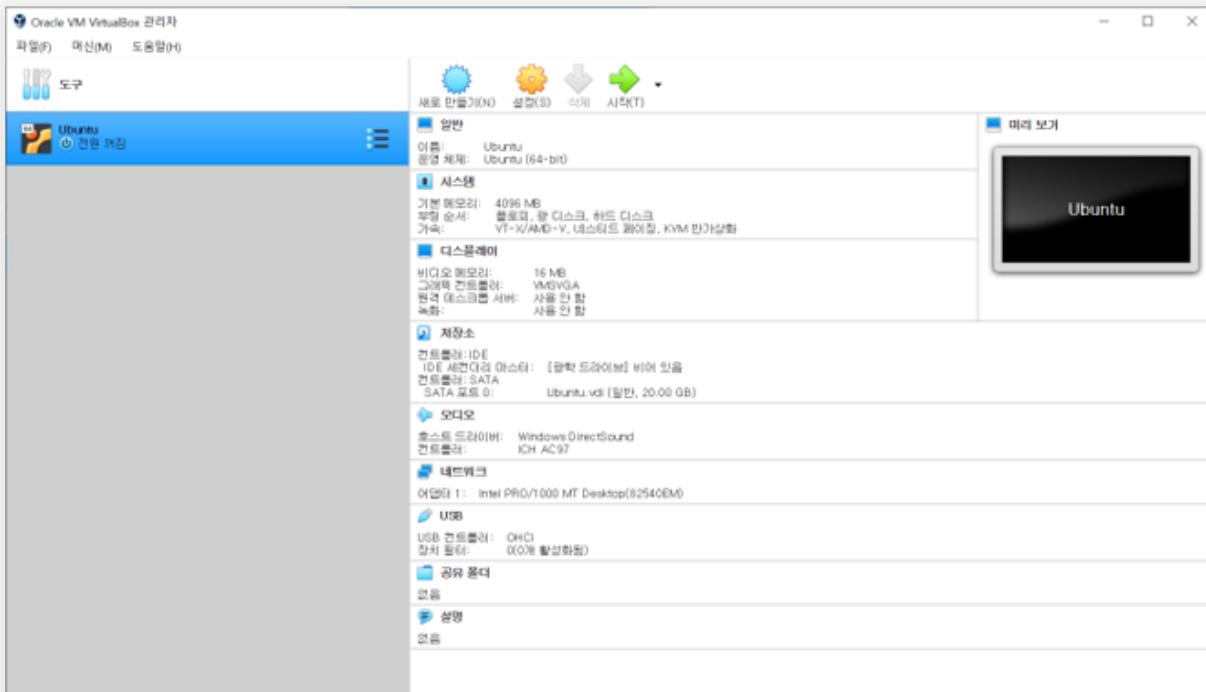
Next > Cancel

3. Virtual Box 실행 및 Ubuntu 설치

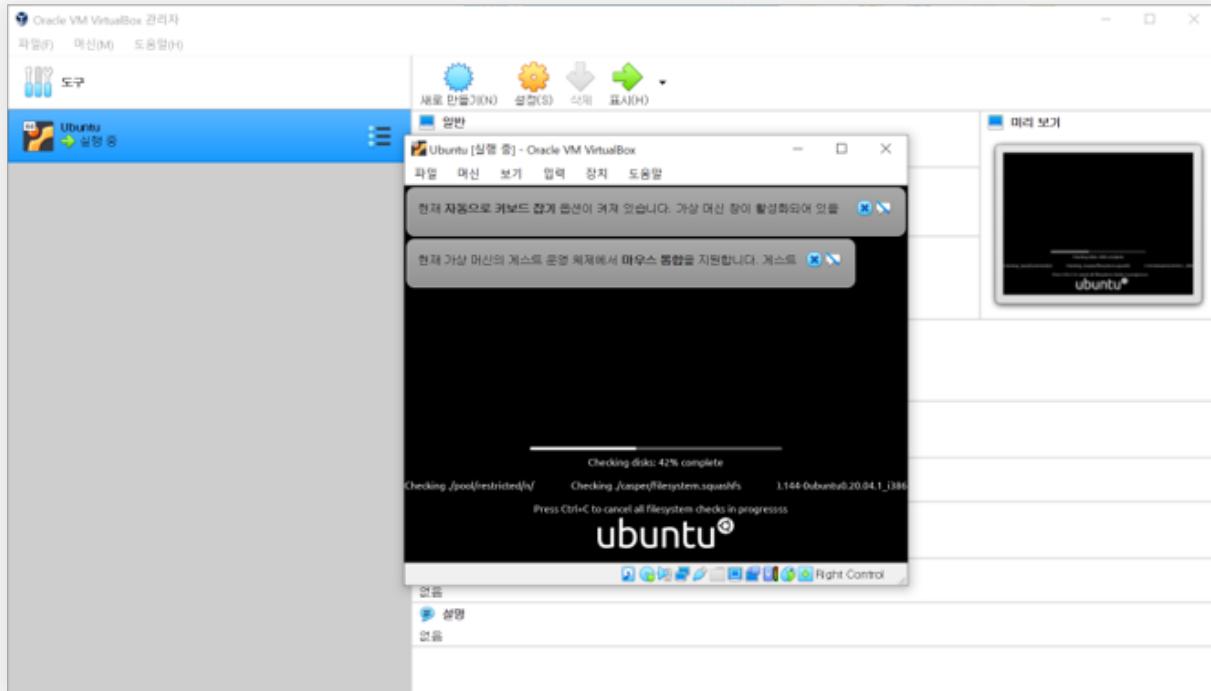
- a. Virtual Box 실행



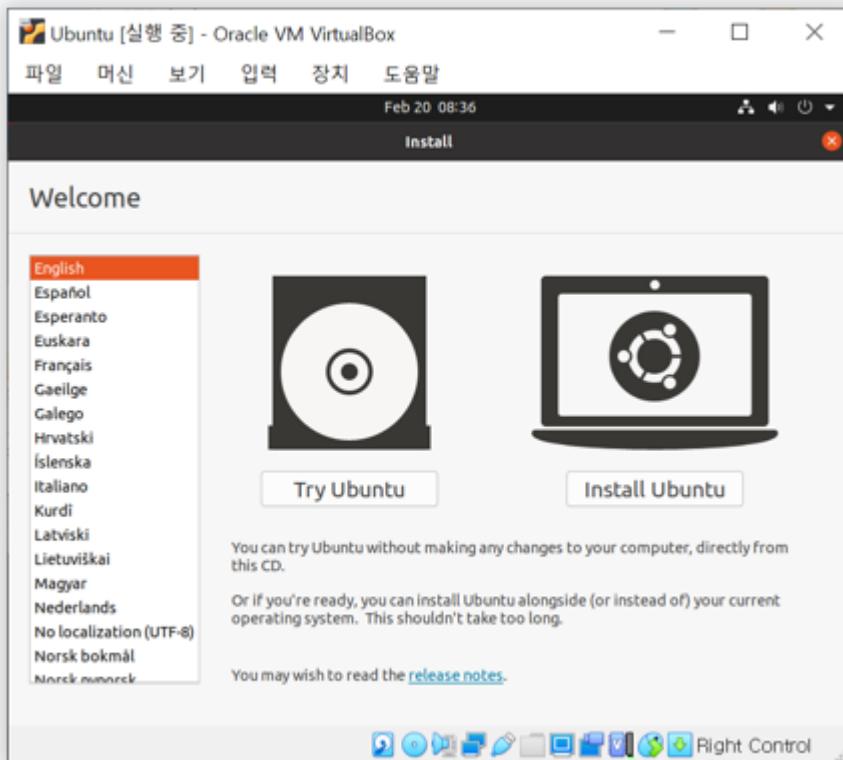
- b. 가상머신 새로 만들기



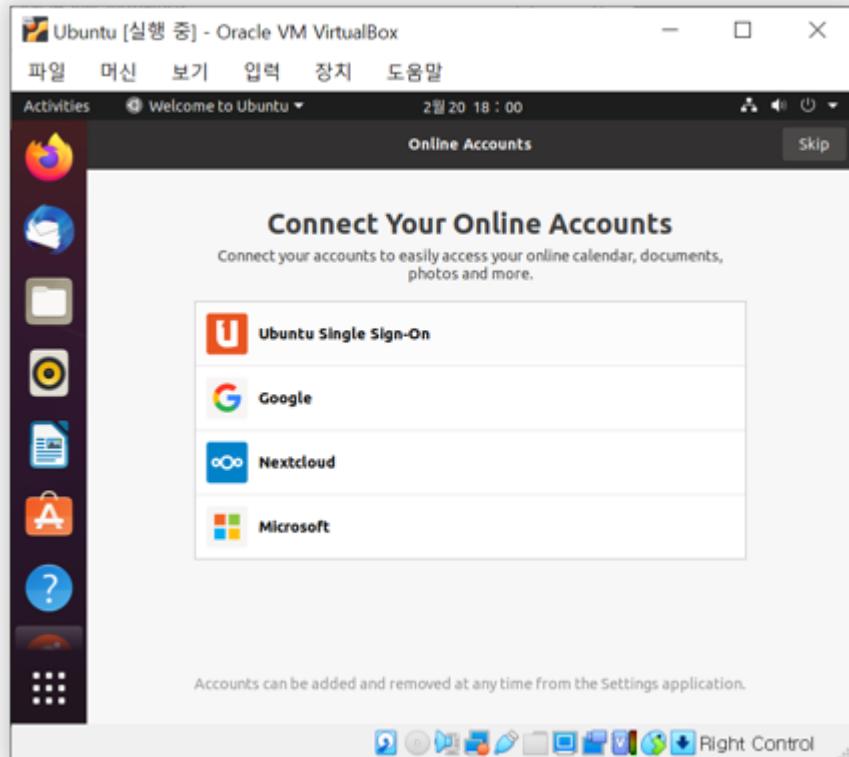
- c. Ubuntu로 가상머신 부팅



- d. Ubuntu 설치

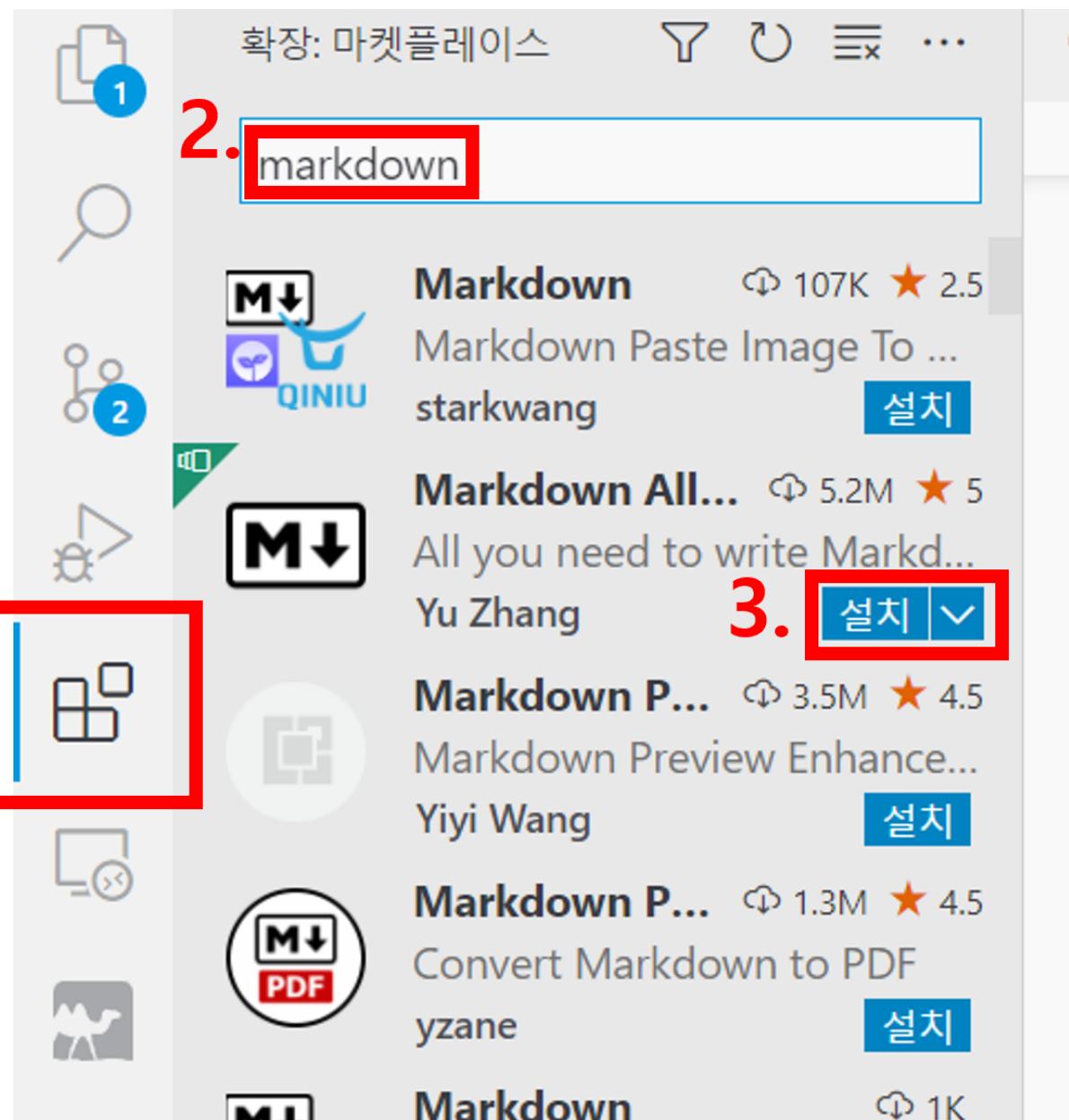


- e. Virtual Box 가상머신에서 Ubuntu 실행



D. Markdown 설치와 문법 익히기

- Visual Studio Code에서 Markdown 확장팩 설치
- 기타 원하는 경우 Markdown 편집기 설치



1. 좌측 메뉴에서 확장 또는 <Ctrl> + <Shift> + K
2. 검색창에 **markdown** 입력
3. **설치** 버튼을 눌러 설치

E. 글꼴: D2Coding 설치

1. D2Coding github release에 접속 후 .zip 파일 다운로드

[Releases](#) [Tags](#)

Jun 1, 2018

benelog

VER1.3.2
11cef98

Compare ▾

D2Coding Ver 1.3.2 Latest

D2Coding 1.3.2 버전을 릴리즈 합니다. ligature 관련 이슈를 수정하여, ligature 적용/미적용 폰트를 구분하여 배포합니다.

기존 버전은 반드시 삭제후 설치 바랍니다.

개선 내용

- IntelliJ에서 i 자 길이 이슈 수정: #70
 - 18px에서 i가 다른 글자보다 길이가 짧게 표시되어 상대적으로 들쭉날쭉해 보입니다. (Windows 10, 안드로이드 스튜디오 3.1 / Visual Studio Code)
- 19px에서 '산', 16pt/18pt에서 '세', 18pt에서 글자 높이 이슈
- bold 'y'자 크기 이슈 수정: #67
 - bold 소문자 y 크기가 다른 문자보다 작음
- 하트 특수문자 가독성 이슈 수정: #69
 - 비어 있는 하트 문자 가독성 개선
 - 예상문자: u+2661
- Tab 문자 출력 이슈 수정: #68
 - source Insight 4.0에서 Tab 문자가 이상하게 표시됨
 - '>' 표시와 Tab(.) 표시가 서로 겹쳐서 출력되고 있음

▼ Assets 3

D2Coding-Ver1.3.2-20180524.zip	20.3 MB	Jun 1, 2018
Source code (zip)		Jun 1, 2018
Source code (tar.gz)		Jun 1, 2018

133 23 35 152 people reacted

2. 다운로드된 .zip 파일을 압축해제

100% D2Coding-Ver1.3.2-20180524.zip(1/1)- 알집

압축풀기 완료
모든 파일을 성공적으로 풀었습니다.

결과 : 전체 10 (성공 10 / 실패 0) 00:00:00 / 40.5MB

경로	결과
✓ D2Coding	성공
✓ D2CodingAll	성공
✓ D2CodingLigature	성공
✓ D2CodingWD2Coding-Ver1.3.2-20180524.ttf	성공
✓ D2CodingLigatureWD2Coding-Ver1.3.2-20...	성공
✓ D2CodingWD2CodingBold-Ver1.3.2-20180...	성공

ASHCROFT
기능에 충실하면서도
창의적인 아이웨어
자세히보기 >

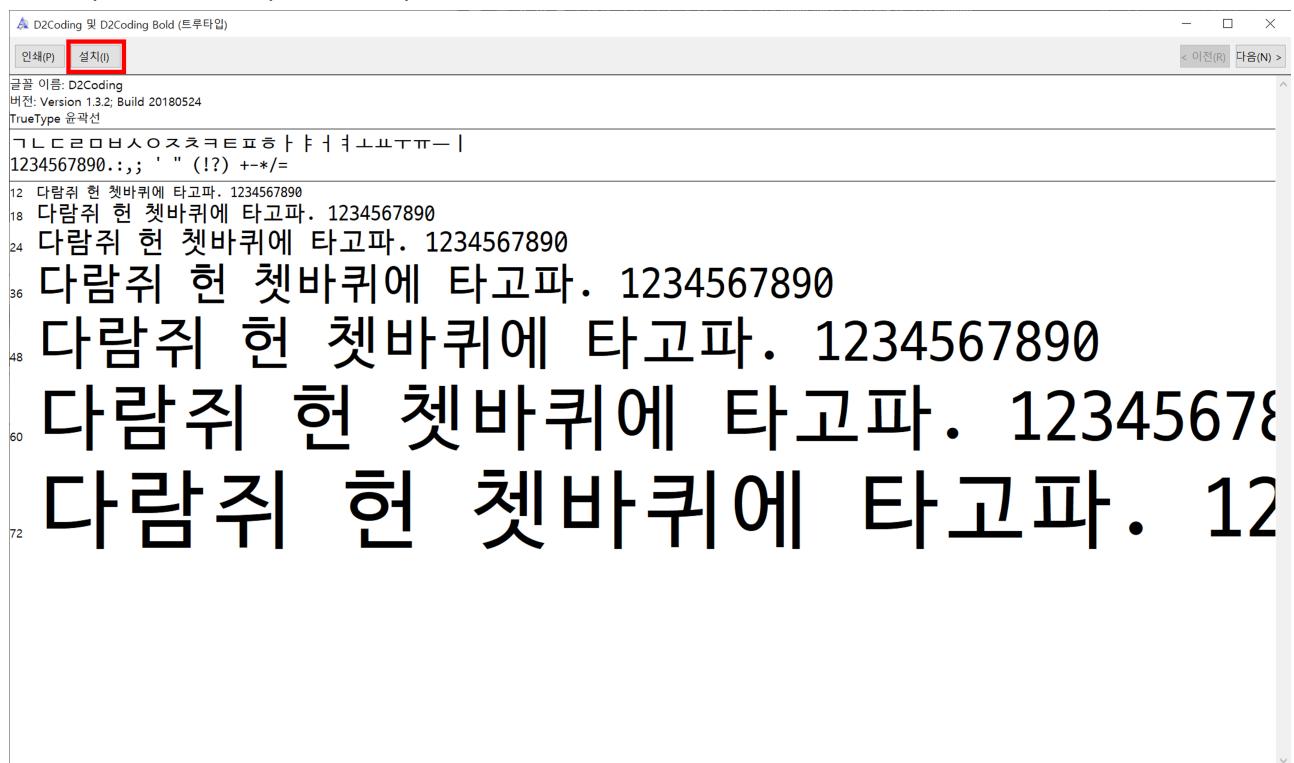
겨우 6살.. 희귀병으로 뇌수술을
받은 이안이 대한적십자사

압축파일 삭제 [폴더열기\(F\)](#) 닫기

3. D2Coding 폴더 안에 있는 글꼴 확인

이름	수정한 날짜	유형	크기
D2CodingBold-Ver1.3.2-20180524.ttf	2018-05-25 오전 1:00	트루타입 글꼴 파일	4,258KB
D2Coding-Ver1.3.2-20180524.ttc	2018-05-25 오전 1:18	트루타입 컬렉션 글...	8,214KB
D2Coding-Ver1.3.2-20180524.ttf	2018-05-25 오전 12:55	트루타입 글꼴 파일	4,088KB

4. 글꼴 파일을 실행한 후 글꼴 설치



F. Python 3 설치

1. Python 홈페이지에서 설치파일 다운로드

The screenshot shows the Python.org homepage. At the top, there are navigation links: Python, PSF, Docs, PyPI, Jobs, and Community. Below the header is the Python logo and a search bar with a magnifying glass icon. A yellow 'Donate' button is on the left, and a blue 'GO' button is on the right. The main content area has a dark background with a light blue sidebar on the left containing a code snippet. The sidebar title is 'About'. The code snippet shows Python 3 arithmetic:

```
# Python 3: Simple arithmetic
>>> 1 / 2
0.5
>>> 2 ** 3
8
>>> 17 / 3 # classic division returns a float
5.666666666666667
>>> 17 // 3 # floor division
5
```

To the right of the code is a section titled 'Intuitive Interpretation' with text about Python's calculation rules. Below the sidebar are five numbered buttons (1, 2, 3, 4, 5). At the bottom of the page, a yellow banner says 'Support Python in 2022! Check out the special deal open only till November 22nd.' with a 'Join in today!' button. The main content area below the banner contains a paragraph about Python's benefits and a 'Learn More' link. The footer features three columns: 'Get Started', 'Download' (which is highlighted with a red box), and 'Docs'.

자신의 운영체제에 맞는 파일 다운로드

Files

Version	Operating System	Description	MD5 Sum	File Size	GPG	Sigstore
Gzipped source tarball	Source release		c5f77f1ea256dc5bdb0897eeb4d35bb0	26333656	SIG	CRT SIG
XZ compressed source tarball	Source release		fe92aca0db9bf5044958edb451d463	19819768	SIG	CRT SIG
macOS 64-bit universal2 installer	macOS	for macOS 10.9 and later	98fa94815780c9330fc2154559365834	42602603	SIG	CRT SIG
Windows embeddable package (32-bit)	Windows		0888959642cc8af087d88da3866490a5	9560053	SIG	CRT SIG
Windows embeddable package (64-bit)	Windows		7df0f4244e5a66760b7caaed58e86c93	10545380	SIG	CRT SIG
Windows embeddable package (ARM64)	Windows		e3dbbd5d63c6cb203adc6c0c8ca5f5f7	9765886	SIG	CRT SIG
Windows installer (32-bit)	Windows		e369a267acaad62487223bd835279bb9	23987136	SIG	CRT SIG
Windows installer (64-bit)	Windows	Recommended	4fe11b2b0bb0c744cf74aff537f7cd7f	25157416	SIG	CRT SIG
Windows installer (ARM64)	Windows	Experimental	18e5bd9a4854109adf3b77c7c9dc1ded	24289144	SIG	CRT SIG

2. 설치파일을 실행하여 파이썬 설치

반드시 Add python.exe to PATH 를 체크할 것



3. CMD에서 `python` 명령어로 파이썬 실행

```
명령 프롬프트 - python
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\JTJ>python
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> 
```

G. LibreOffice 설치

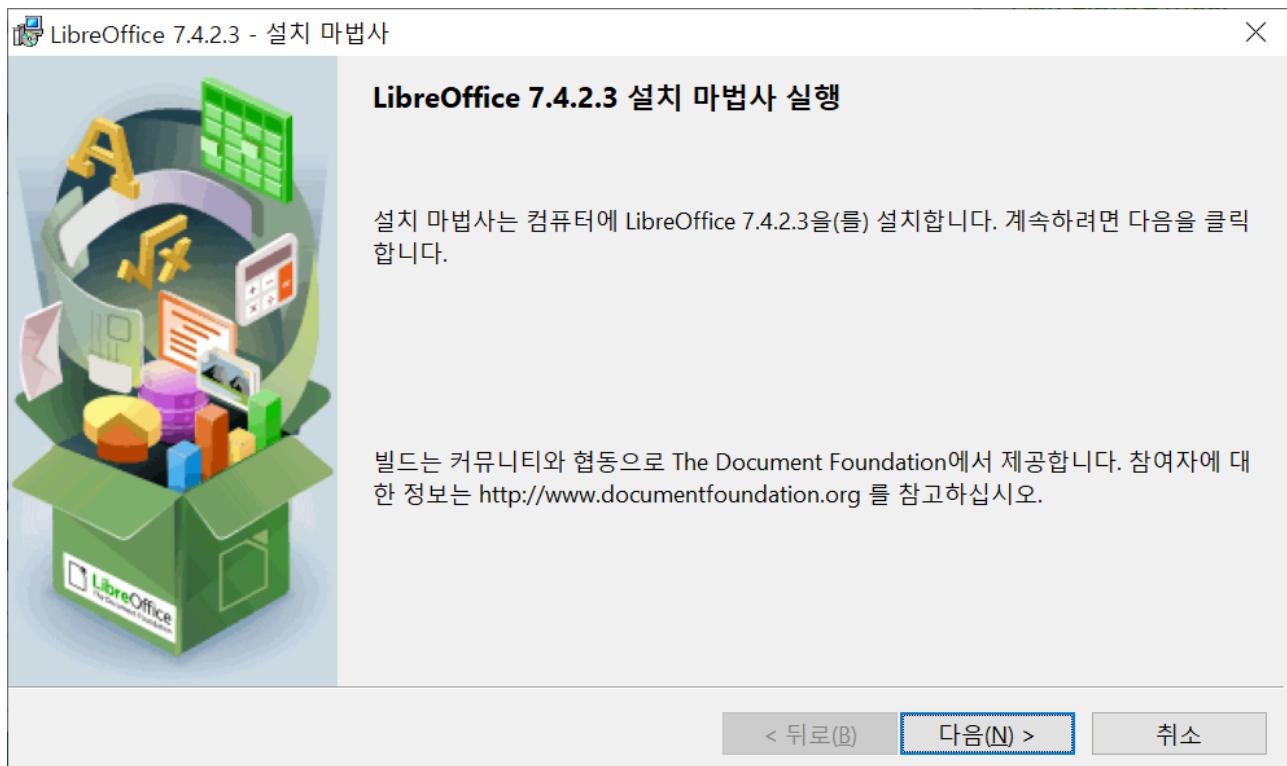
1. LibreOffice 홈페이지에서 설치파일 다운로드

The screenshot shows the LibreOffice website's main navigation bar at the top, with links for English, DISCOVER, DOWNLOAD, GET HELP, IMPROVE IT, EVENTS, ABOUT US, DONATE, and a search bar. Below the navigation, there's a sidebar titled 'Discover' containing links to various parts of the suite like Writer, Calc, Impress, Draw, Base, and Math. The main content area features sections for 'What is LibreOffice?' (with screenshots of the suite), 'Do more – easily, quickly' (describing its power and free nature), and 'Great-looking, well-structured documents' (mentioning its professional look). A note about accepting YouTube content is also present.

자신의 운영체제에 맞는 파일 다운로드

This screenshot focuses on the 'Download' section of the website. It features a large blue button for 'Business users: click here' and a green button for 'Discover LibreOffice'. The central part of the page is titled 'Download LibreOffice' and says it's ideal for home users, students, and non-profits. It highlights the LibreOffice 7.4.2 release and provides download links for Windows (64-bit) and Linux. A red box surrounds the 'Windows (64-bit)' dropdown menu and the 'DOWNLOAD' button. To the right, there are several green buttons for documentation, providing feedback, joining the project, meeting at events, discovering more, and looking at good documents. A sidebar on the right lists various system requirements and download options.

2. 설치파일을 실행하여 LibreOffice 설치



3. 설치된 LibreOffice 실행

