KOSA
Korea Software Industry Association

Windows WSL 2 설치

2022. 3. 29

정 준 수 PhD

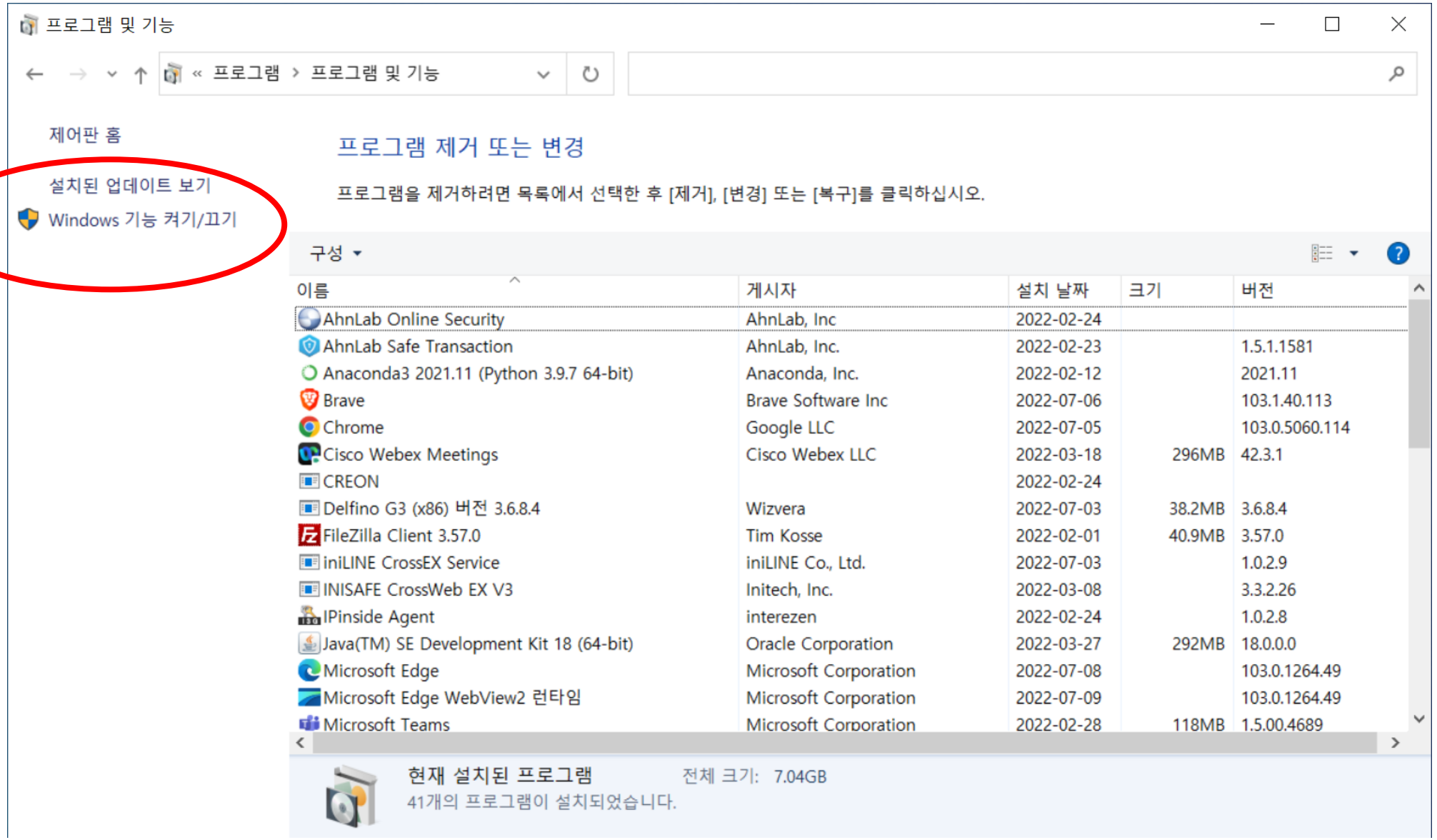
PC(Local) 환경구축: WSL

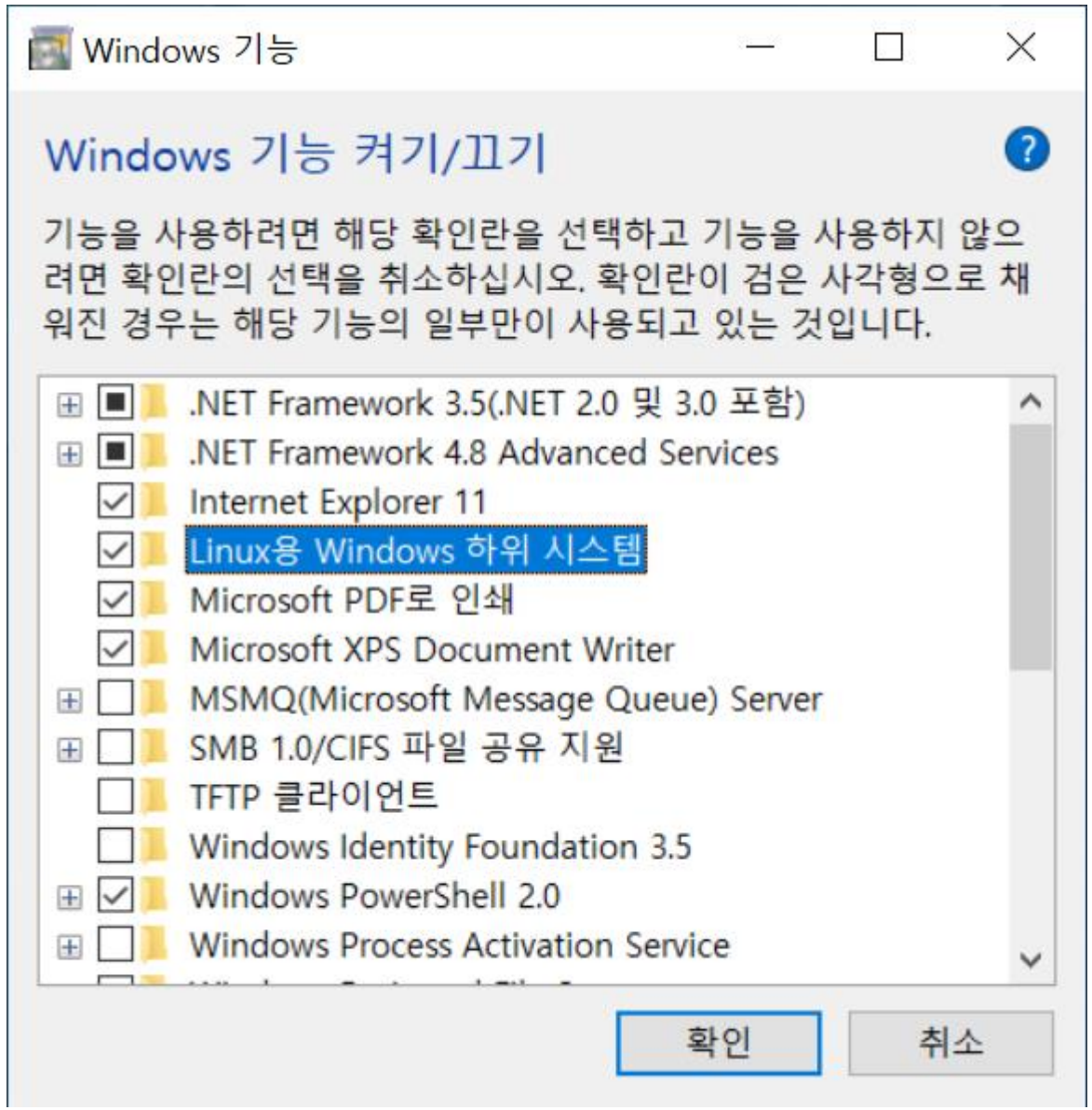
윈도우 환경에서 원하는 Linux를 실행

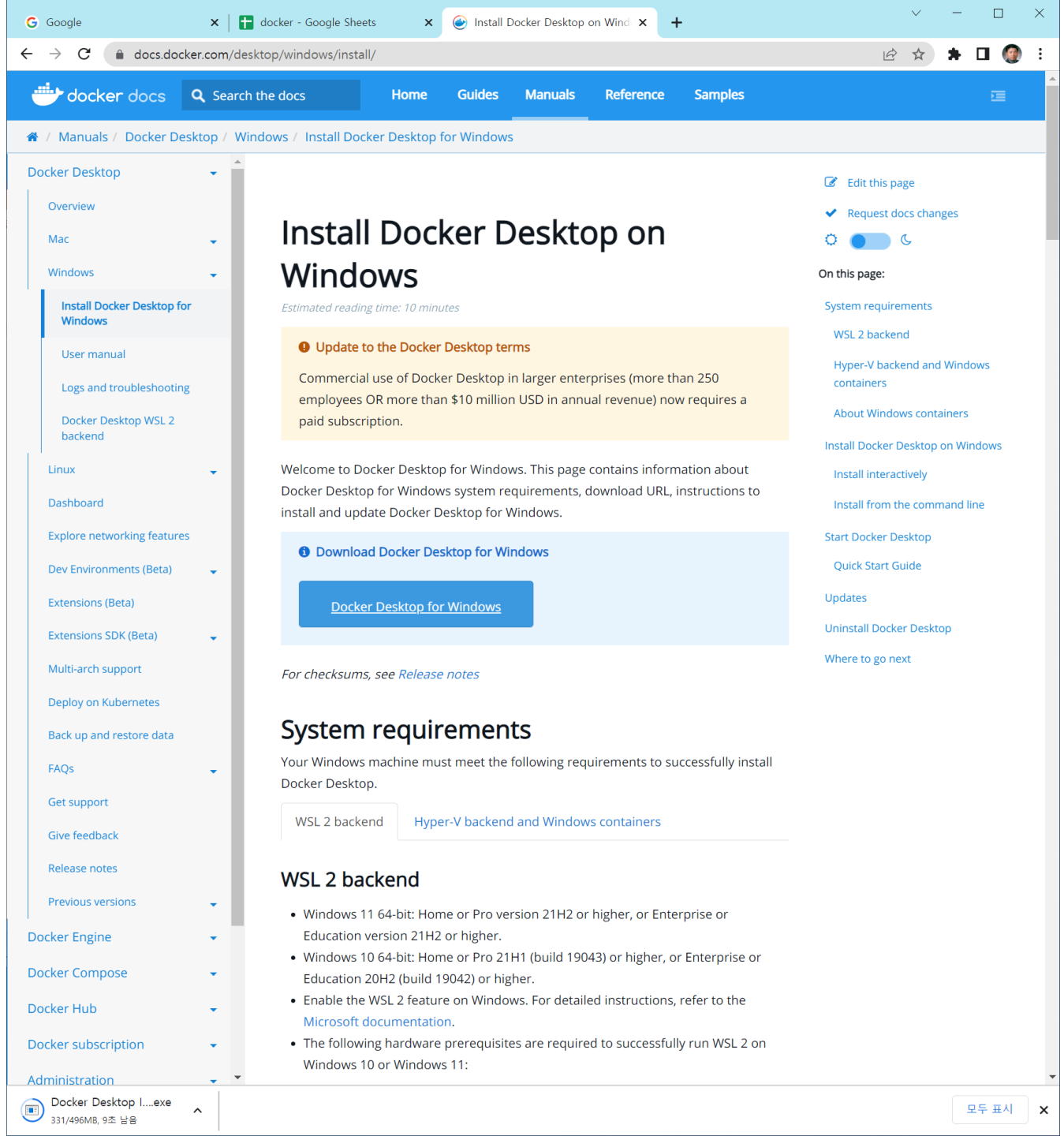
1. 관리자 권한으로 명령 프롬프트(CMD) 실행
2. https://docs.microsoft.com/ko-kr/windows/wsl/tutorials/gui-apps
3. C> Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-windows-Subsystem-Linux
4. 또는 https://ivyit.tistory.com/264
5. Microsoft Store 열기
6. Ubuntu 또는 Debian 선택

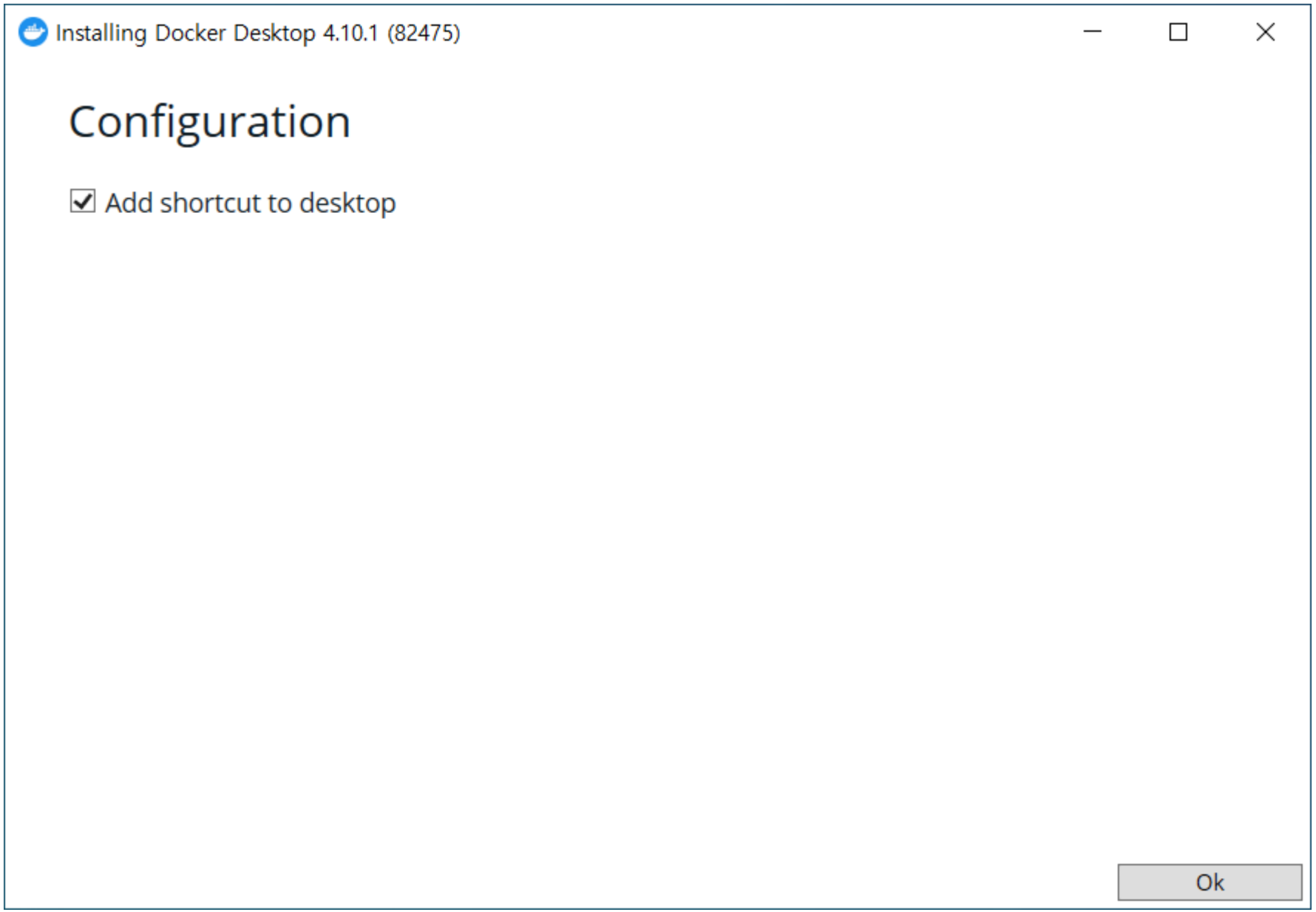
https://docs.microsoft.com/ko-kr/windows/wsl/install

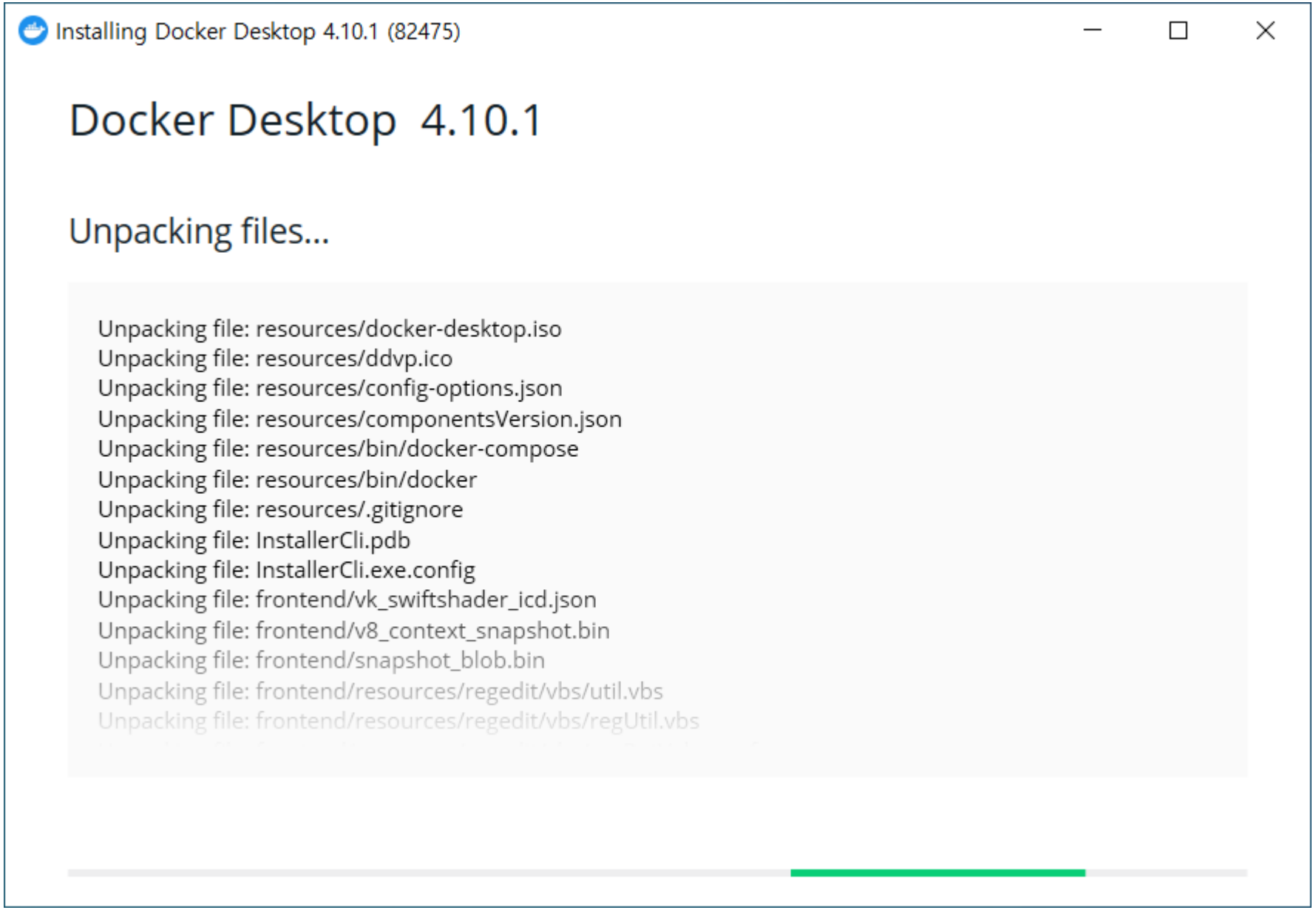
https://docs.microsoft.com/ko-kr/windows/wsl/install-manual#step-4---download-the-linux-kernel-update-package

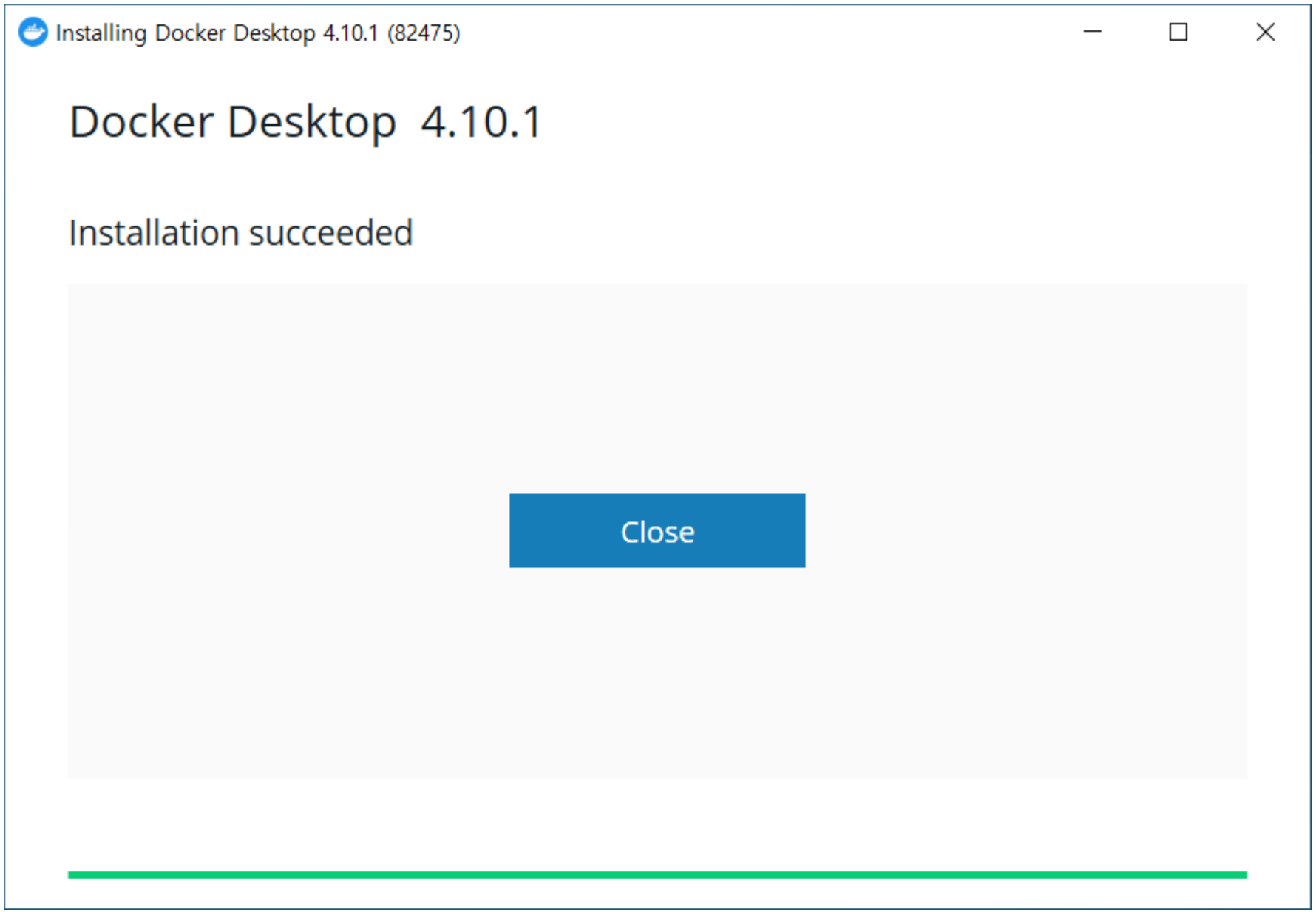

프로그램 및 기능
« 프로그램 › 프로그램 및 기능
제어판 홈
설치된 업데이트 보기
Windows 기능 켜기/끄기
프로그램 제거 또는 변경
프로그램을 제거하려면 목록에서 선택한 후 [제거], [변경] 또는 [복구]를 클릭하십시오.
구성
이름 게시자 설치 날짜 크기 버전
AhnLab Online Security AhnLab, Inc 2022-02-24
AhnLab Safe Transaction AhnLab, Inc. 2022-02-23 1.5.1.1581
Anaconda3 2021.11 (Python 3.9.7 64-bit) Anaconda, Inc. 2022-02-12 2021.11
Brave Brave Software Inc 2022-07-06 103.1.40.113
Chrome Google LLC 2022-07-05 103.0.5060.114
Cisco Webex Meetings Cisco Webex LLC 2022-03-18 296MB 42.3.1
CREON 2022-02-24
Delfino G3 (x86) 버전 3.6.8.4 Wizvera 2022-07-03 38.2MB 3.6.8.4
FileZilla Client 3.57.0 Tim Kosse 2022-02-01 40.9MB 3.57.0
iniLINE CrossEX Service iniLINE Co., Ltd. 2022-07-03 1.0.2.9
INISAFE CrossWeb EX V3 Initech, Inc. 2022-03-08 3.3.2.26
IPinside Agent interezen 2022-02-24 1.0.2.8
Java(TM) SE Development Kit 18 (64-bit) Oracle Corporation 2022-03-27 292MB 18.0.0.0
Microsoft Edge Microsoft Corporation 2022-07-08 103.0.1264.49
Microsoft Edge WebView2 런타임 Microsoft Corporation 2022-07-09 103.0.1264.49
Microsoft Teams Microsoft Corporation 2022-02-28 118MB 1.5.00.4689
현재 설치된 프로그램 전체 크기: 7.04GB
41개의 프로그램이 설치되었습니다.

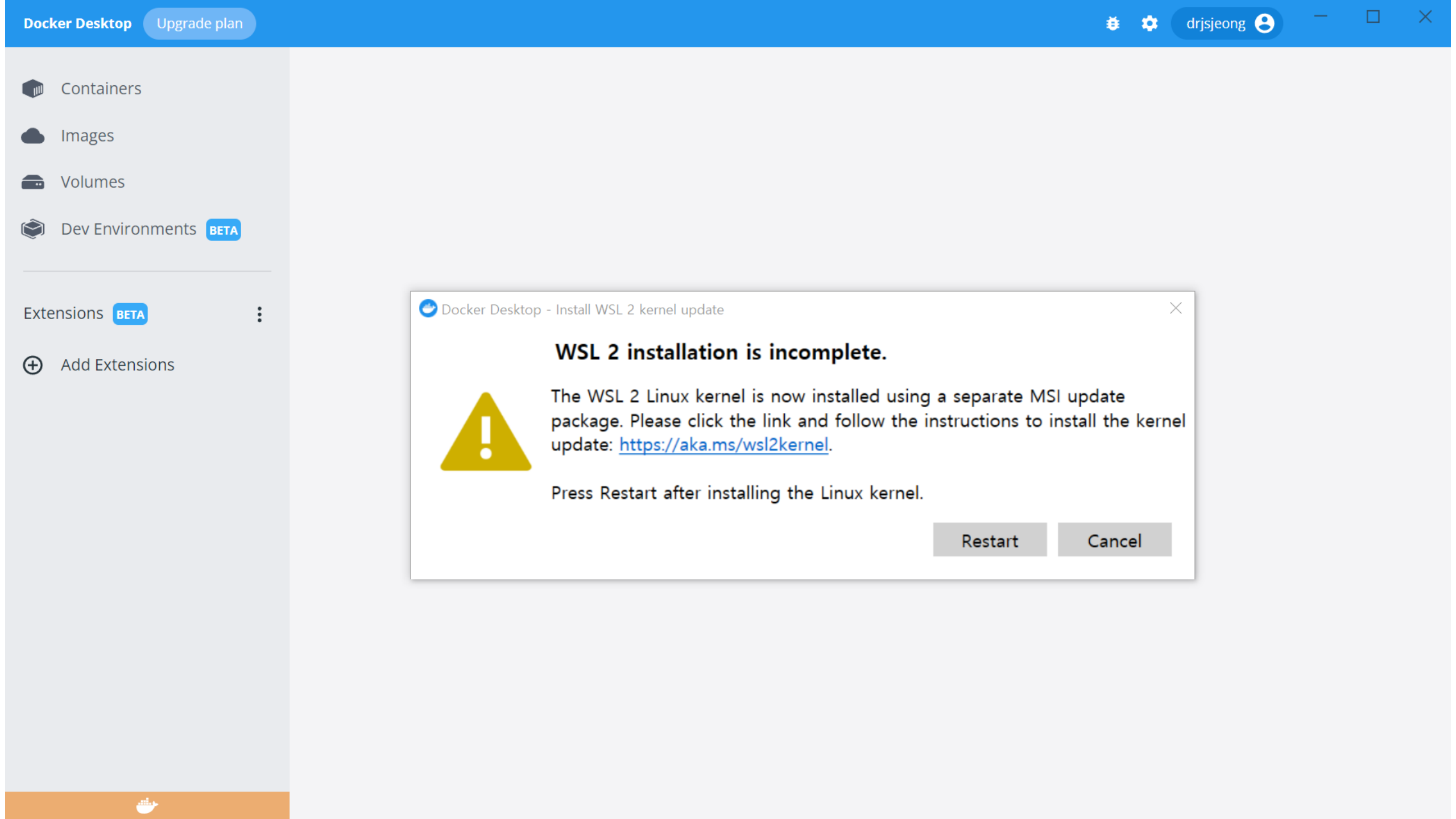

Windows 기능
Windows 기능 켜기/끄기
기능을 사용하려면 해당 확인란을 선택하고 기능을 사용하지 않으려면 확인란의 선택을 취소하십시오. 확인란이 검은 사각형으로 채워진 경우는 해당 기능의 일부만이 사용되고 있는 것입니다.
.NET Framework 3.5(.NET 2.0 및 3.0 포함)
.NET Framework 4.8 Advanced Services
Internet Explorer 11
Linux용 Windows 하위 시스템
Microsoft PDF로 인쇄
Microsoft XPS Document Writer
MSMQ(Microsoft Message Queue) Server
SMB 1.0/CIFS 파일 공유 지원
TFTP 클라이언트
Windows Identity Foundation 3.5
Windows PowerShell 2.0
Windows Process Activation Service
확인
취소


Google
docker - Google Sheets
Install Docker Desktop on Wind
docs.docker.com/desktop/windows/install/
docker docs
Search the docs
Home
Guides
Manuals
Reference
Samples
Manuals / Docker Desktop / Windows / Install Docker Desktop for Windows
Docker Desktop
Overview
Mac
Windows
Install Docker Desktop for Windows
User manual
Logs and troubleshooting
Docker Desktop WSL 2 backend
Linux
Dashboard
Explore networking features
Dev Environments (Beta)
Extensions (Beta)
Extensions SDK (Beta)
Multi-arch support
Deploy on Kubernetes
Back up and restore data
FAQs
Get support
Give feedback
Release notes
Previous versions
Docker Engine
Docker Compose
Docker Hub
Docker subscription
Administration
Install Docker Desktop on Windows
Estimated reading time: 10 minutes
Update to the Docker Desktop terms
Commercial use of Docker Desktop in larger enterprises (more than 250 employees OR more than $10 million USD in annual revenue) now requires a paid subscription.
Welcome to Docker Desktop for Windows. This page contains information about Docker Desktop for Windows system requirements, download URL, instructions to install and update Docker Desktop for Windows.
Download Docker Desktop for Windows
Docker Desktop for Windows
For checksums, see Release notes
System requirements
Your Windows machine must meet the following requirements to successfully install Docker Desktop.
WSL 2 backend
Hyper-V backend and Windows containers
WSL 2 backend
Windows 11 64-bit: Home or Pro version 21H2 or higher, or Enterprise or Education version 21H2 or higher.
Windows 10 64-bit: Home or Pro 21H1 (build 19043) or higher, or Enterprise or Education 20H2 (build 19042) or higher.
Enable the WSL 2 feature on Windows. For detailed instructions, refer to the Microsoft documentation.
The following hardware prerequisites are required to successfully run WSL 2 on Windows 10 or Windows 11:
Edit this page
Request docs changes
On this page:
System requirements
WSL 2 backend
Hyper-V backend and Windows containers
About Windows containers
Install Docker Desktop on Windows
Install interactively
Install from the command line
Start Docker Desktop
Quick Start Guide
Updates
Uninstall Docker Desktop
Where to go next
Docker Desktop I....exe
331/496MB, 9초 남음
모두 표시

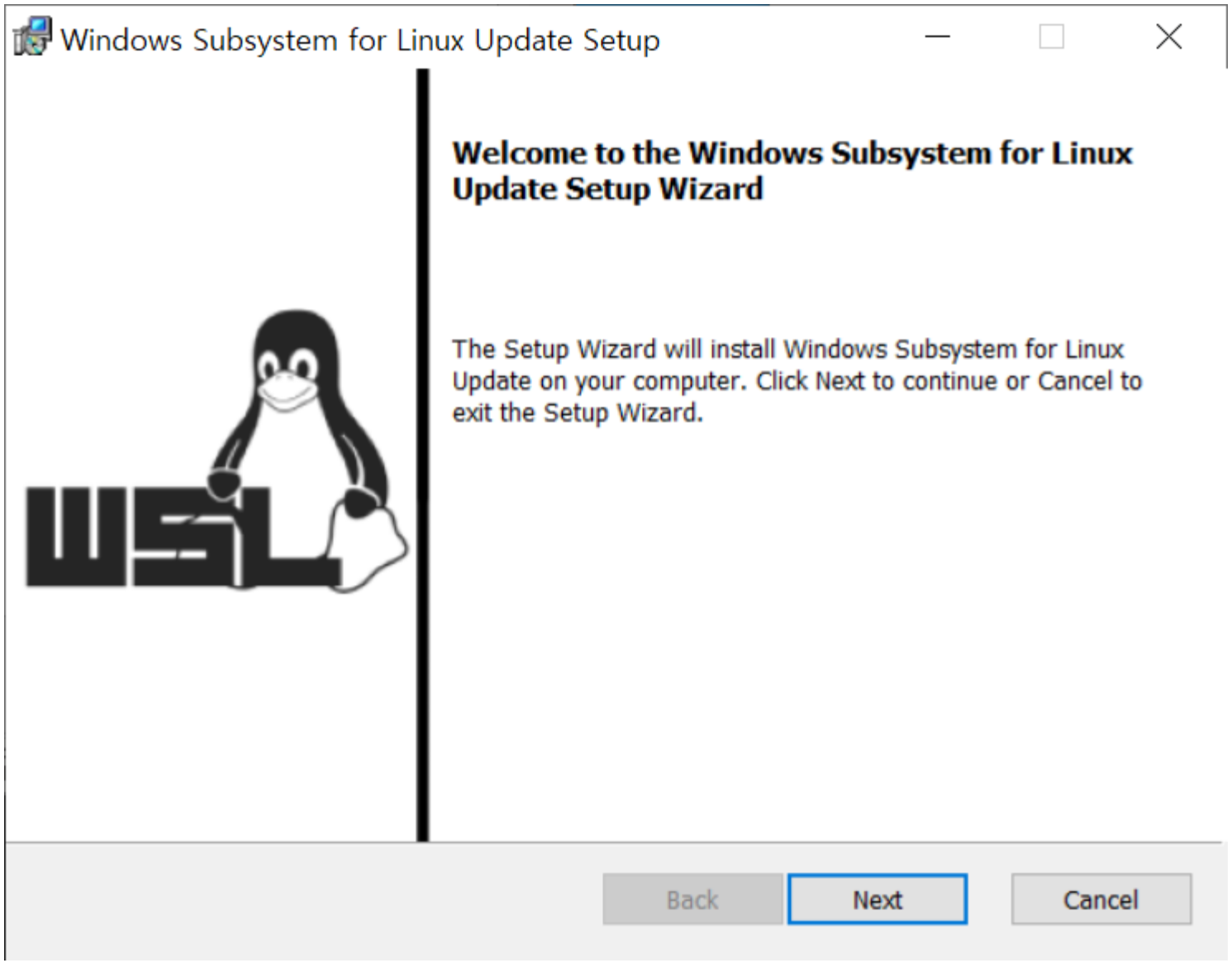

Installing Docker Desktop 4.10.1 (82475)
Configuration
Add shortcut to desktop
Ok

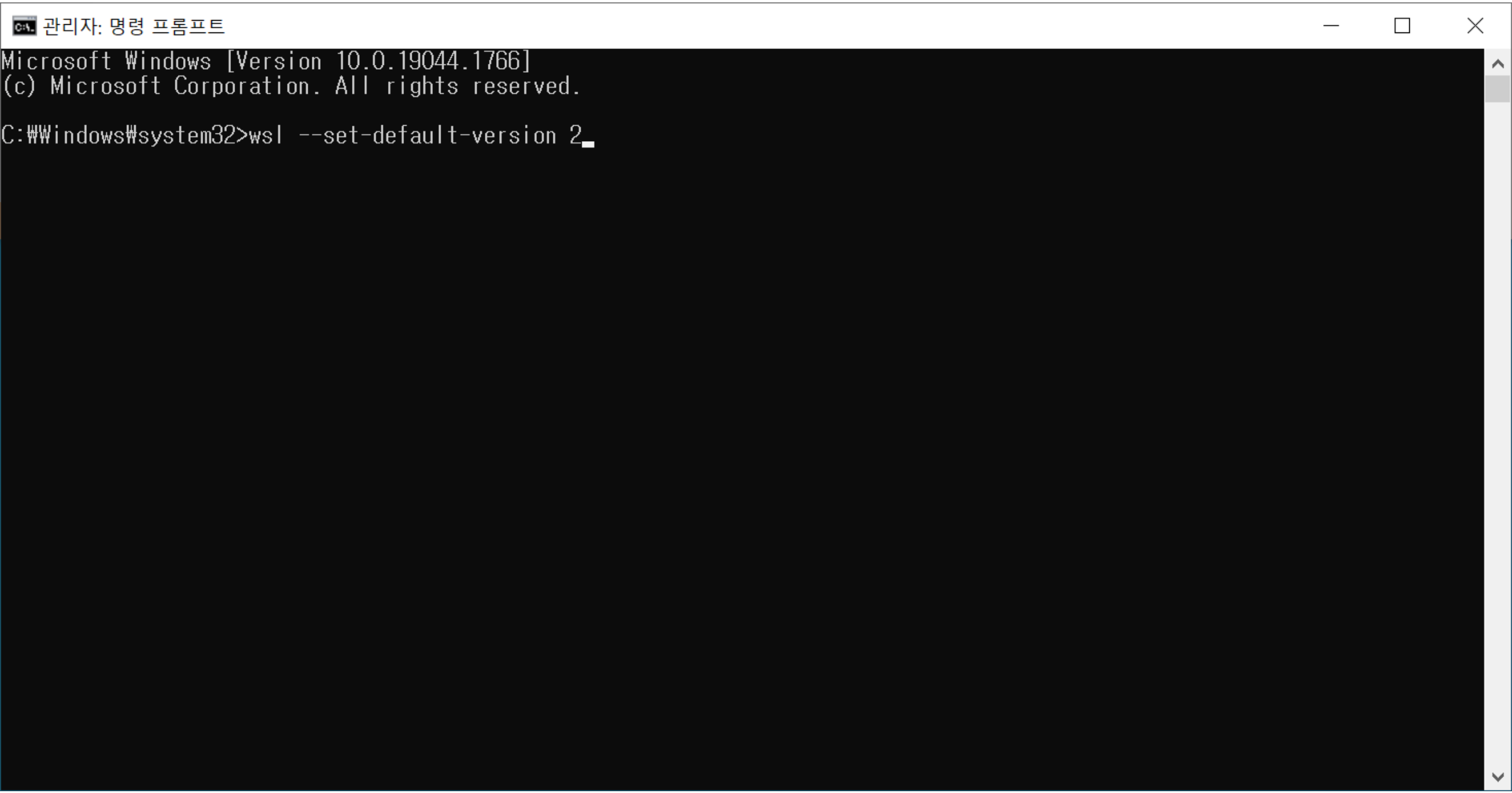

Installing Docker Desktop 4.10.1 (82475)
Docker Desktop 4.10.1
Unpacking files...
Unpacking file: resources/docker-desktop.iso
Unpacking file: resources/ddvp.ico
Unpacking file: resources/config-options.json
Unpacking file: resources/componentsVersion.json
Unpacking file: resources/bin/docker-compose
Unpacking file: resources/bin/docker
Unpacking file: resources/.gitignore
Unpacking file: InstallerCli.pdb
Unpacking file: InstallerCli.exe.config
Unpacking file: frontend/vk_swiftshader_icd.json
Unpacking file: frontend/v8_context_snapshot.bin
Unpacking file: frontend/snapshot_blob.bin
Unpacking file: frontend/resources/regedit/vbs/util.vbs
Unpacking file: frontend/resources/regedit/vbs/regUtil.vbs

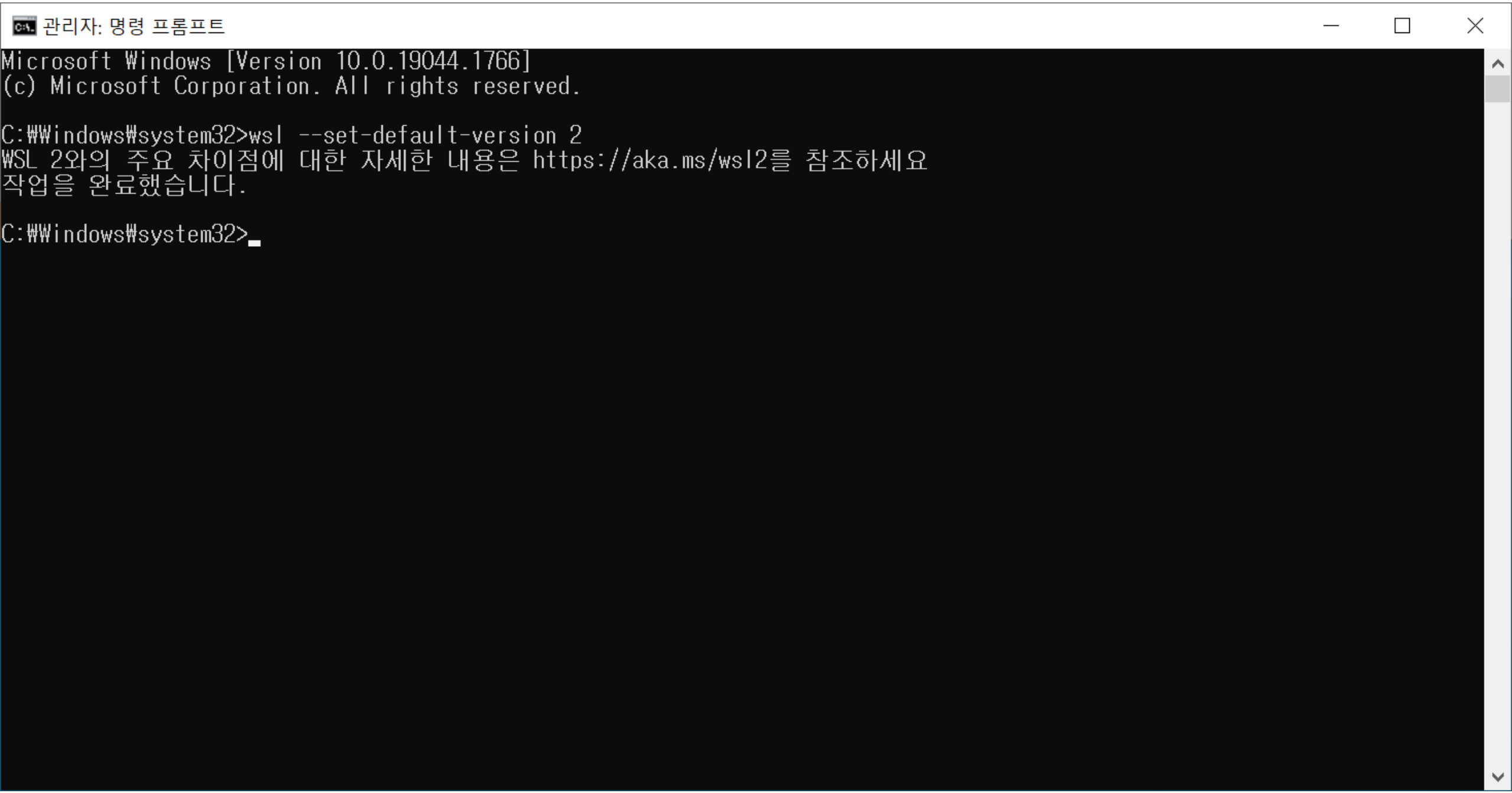

Installing Docker Desktop 4.10.1 (82475)
Docker Desktop 4.10.1
Installation succeeded
Close


Docker Desktop
Upgrade plan
drjsjeong
Containers
Images
Volumes
Dev Environments
BETA
Extensions
BETA
Add Extensions
Docker Desktop - Install WSL 2 kernel update
WSL 2 installation is incomplete.
The WSL 2 Linux kernel is now installed using a separate MSI update package. Please click the link and follow the instructions to install the kernel update: https://aka.ms/wsl2kernel.
Press Restart after installing the Linux kernel.
Restart
Cancel

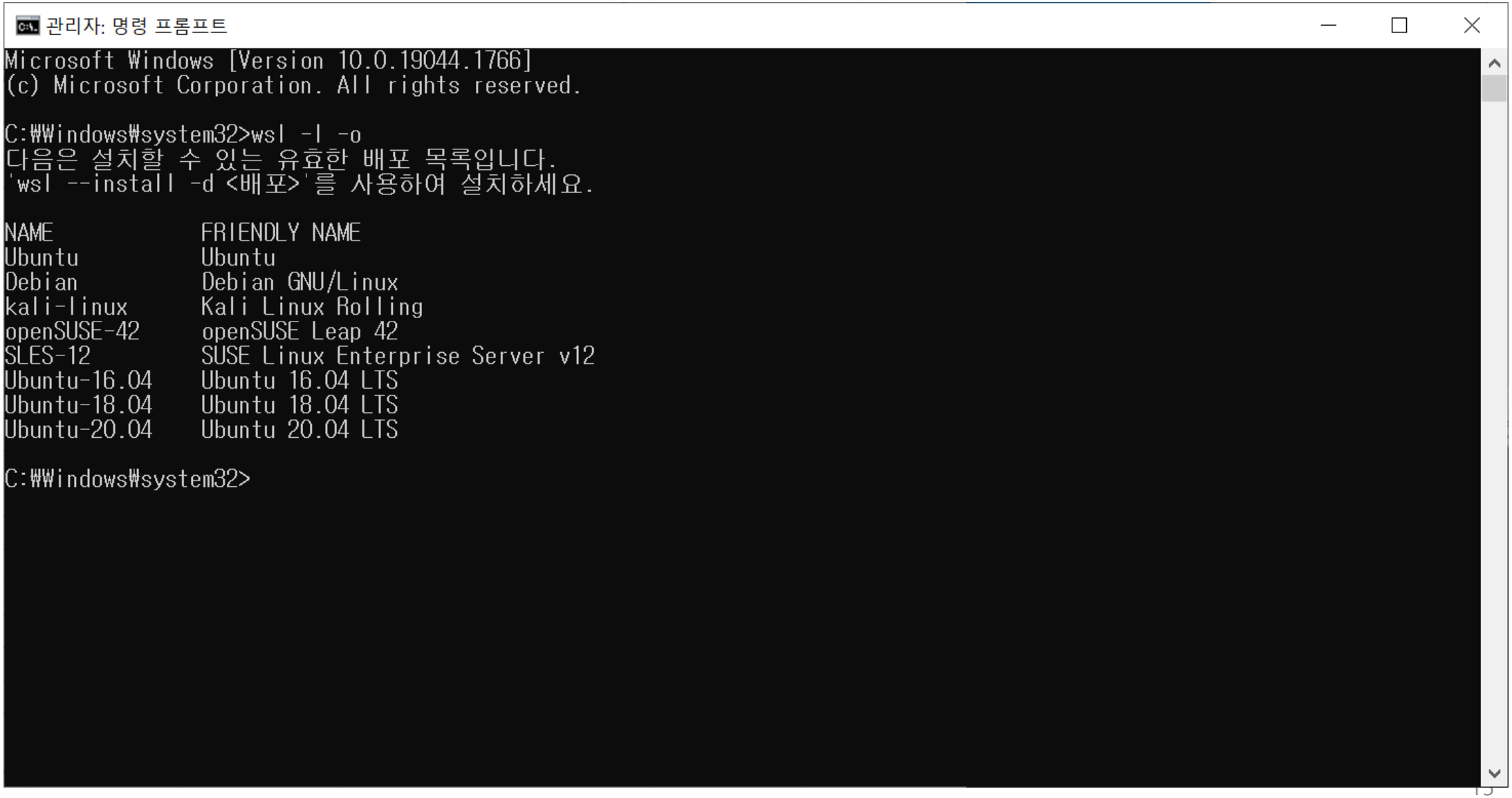
https://docs.microsoft.com/ko-kr/windows/wsl/install-manual#step-4---download-the-linux-kernel-update-package


Windows Subsystem for Linux Update Setup
Welcome to the Windows Subsystem for Linux Update Setup Wizard
The Setup Wizard will install Windows Subsystem for Linux Update on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
WSL
Back
Next
Cancel


관리자: 명령 프롬프트
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.
C:₩Windows₩system32>wsl --set-default-version 2


관리자: 명령 프롬프트
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.
C:₩Windows₩system32>wsl --set-default-version 2
WSL 2와의 주요 차이점에 대한 자세한 내용은 https://aka.ms/wsl2를 참조하세요
작업을 완료했습니다.
C:₩Windows₩system32>

설치 가능한 리눅스 배포본은 "-l -o" 옵션으로 확인



Microsoft Store

앱, 게임, 영화 등 검색

OH

앱

게임

라이브러리

도움말

Debian

The Debian Project

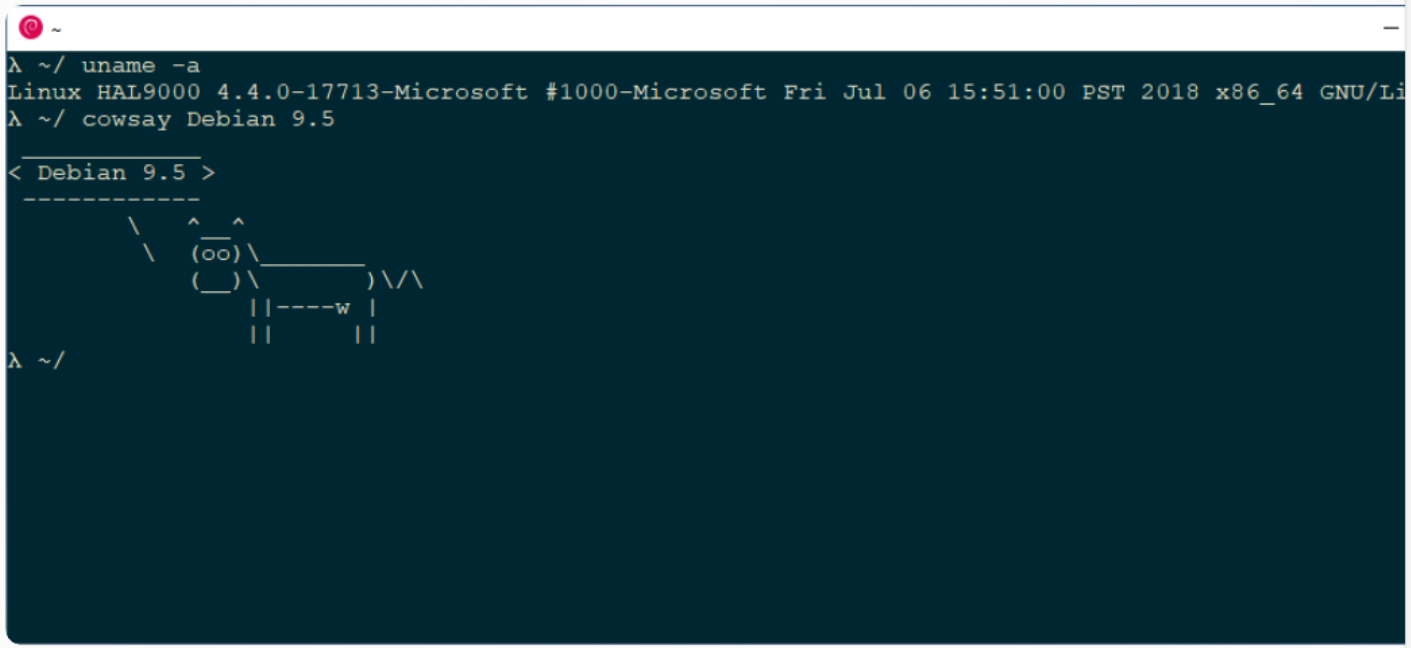
설치

5.0 ★
평균

5
평점

IARC 3+
3+
연령별 등급: IARC. 3+

스크린샷

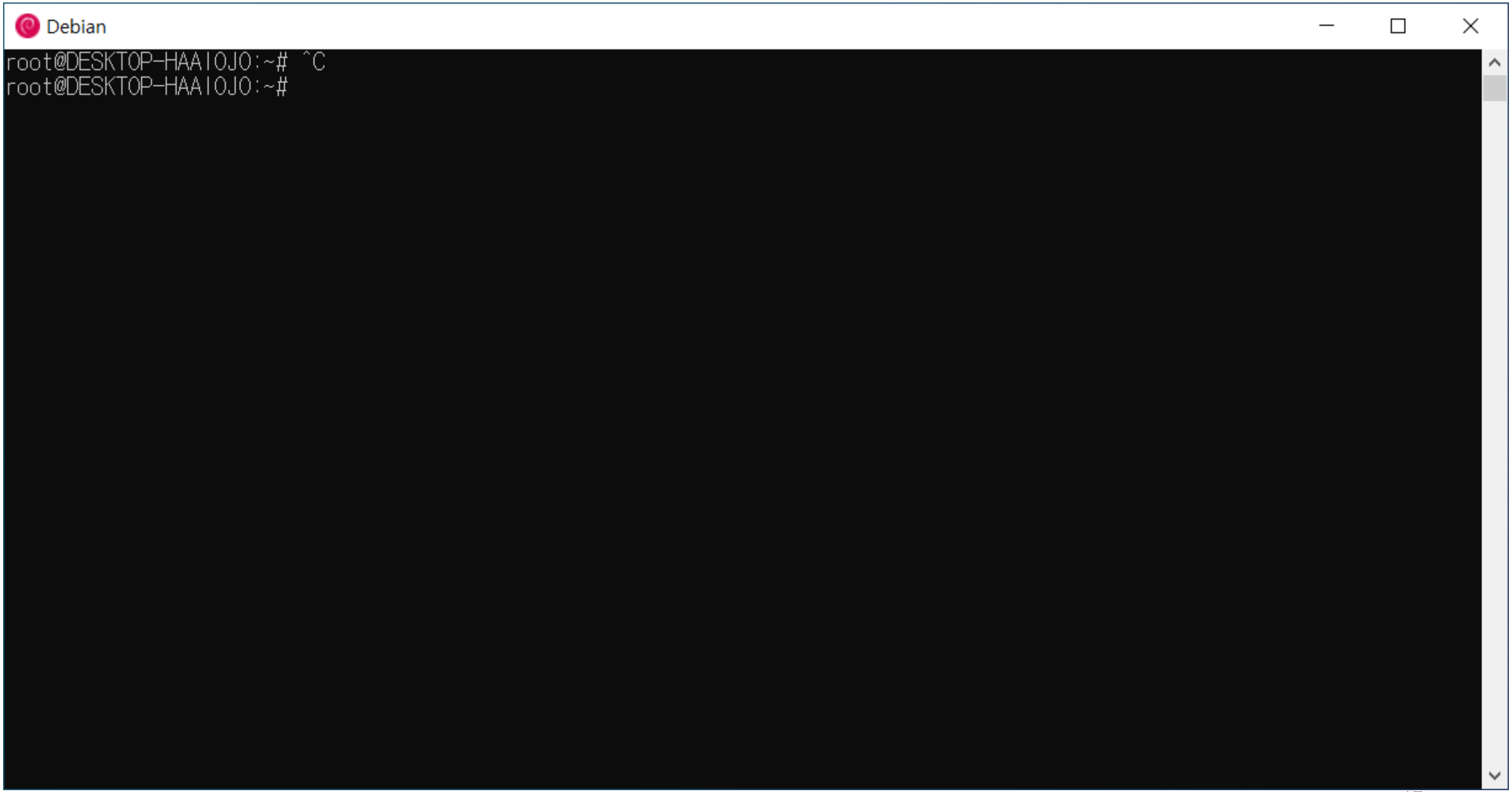


설명

With this app you get Debian for the Windows Subsystem for Linux (WSL).
You will be able to use a complete Debian command line environment containing a full current stable release environment.

If this is your first WSL app you might have to enable WSL first (or contact your device administrator to do so).
https://docs.microsoft.com/en-us/windows/wsl/install

After the installation you can start the WSL console by either clicking the "Debian" tile in the start


Debian
root@DESKTOP-HAAIOJO:~# ^C
root@DESKTOP-HAAIOJO:~#

ubuntu

OH

앱

게임

Ubuntu 20.04.4 LTS

Canonical Group Limited

4.6 ★
평균

10
평점

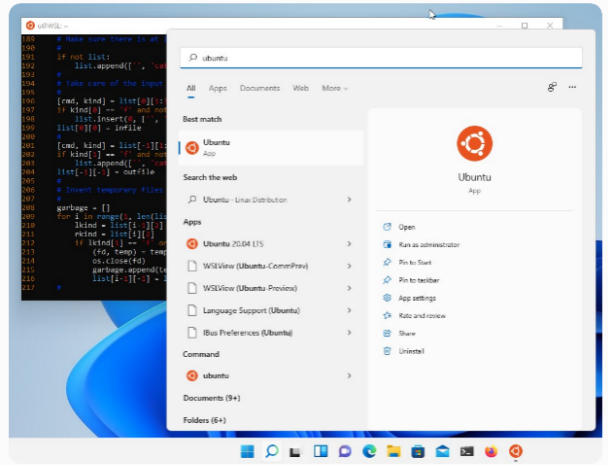
IARC 3+
3+
연령별 등급: IARC. 3+

Install a complete Ubuntu terminal environment in minutes with Windows Subsystem for Linux (WSL)....

개발자 도구

80.53MB/494.6MB 다운로드...

스크린샷



설명

Install a complete Ubuntu terminal environment in minutes with Windows Subsystem for Linux (WSL). Develop cross-platform applications, improve your data science or web development workflows and manage IT infrastructure without leaving Windows.

Key features:
- Efficient command line utilities including bash, ssh, git, apt, npm, pip and many more
- Manage Docker containers with improved performance and startup times
- Leverage GPU acceleration for AI/ML workloads with NVIDIA CUDA
- A consistent development to deployment workflow when using Ubuntu in the cloud

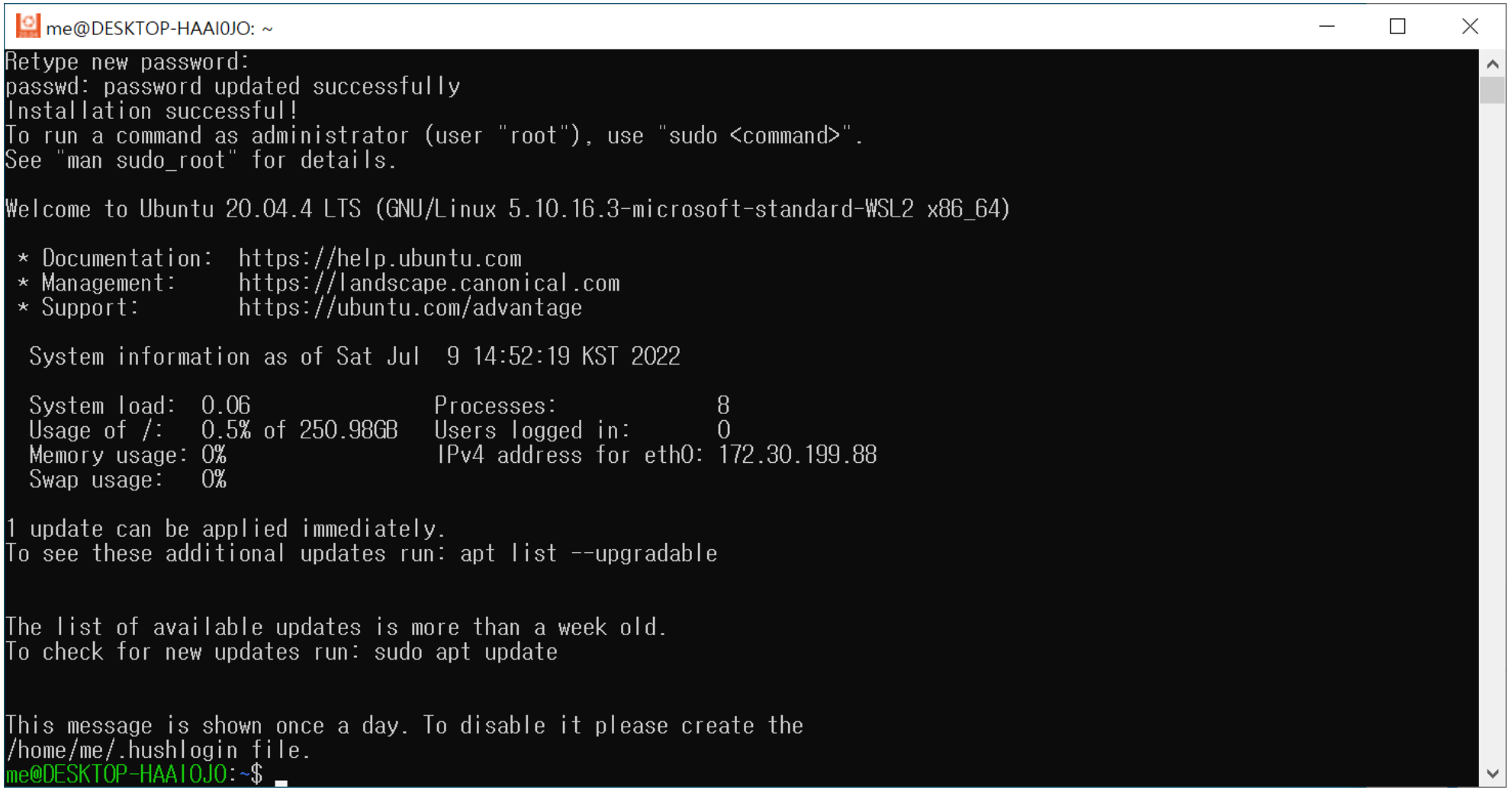
라이브러리

도움말

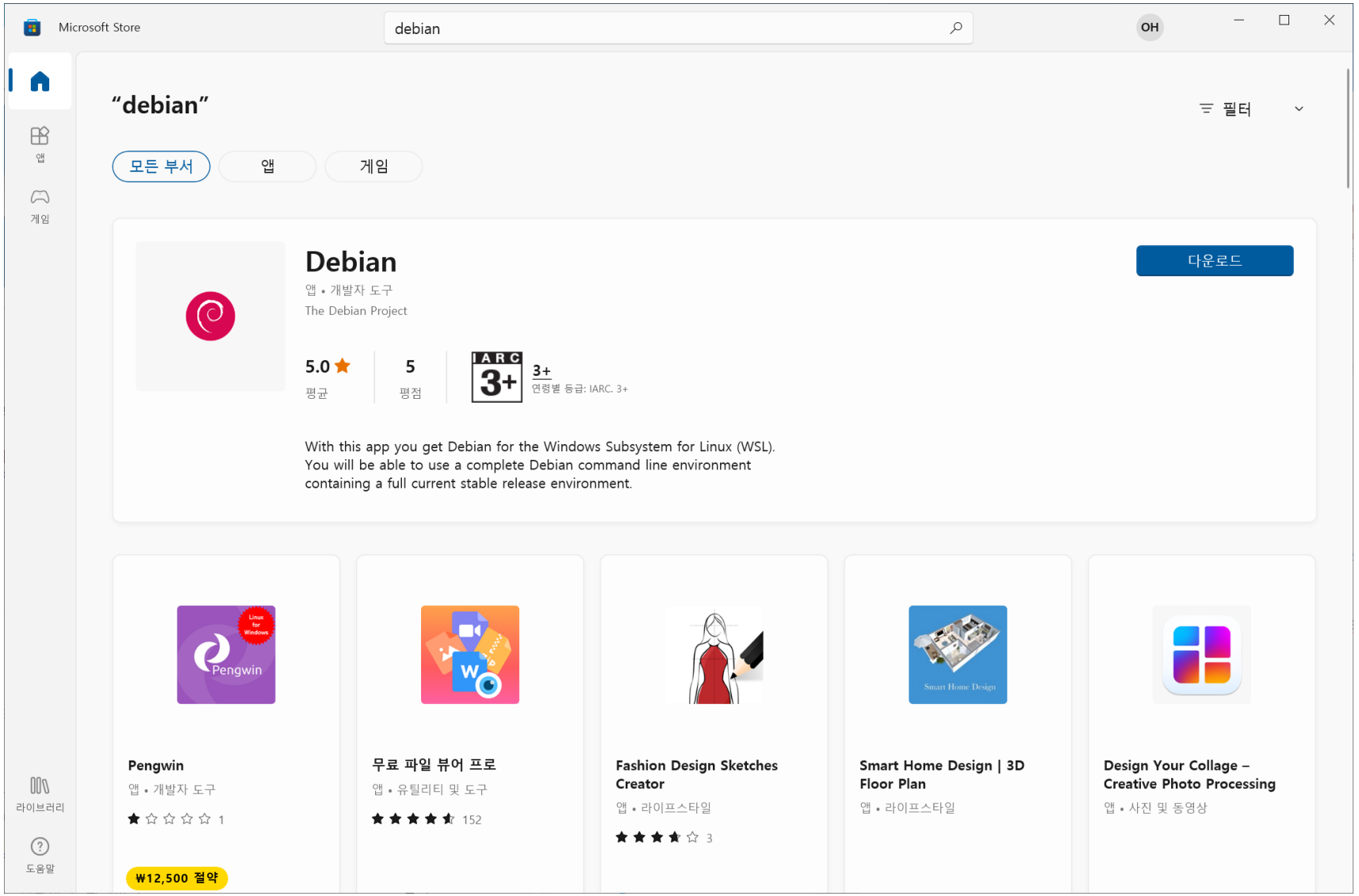
Ubuntu 20.04.4 LTS

```
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: admin
```

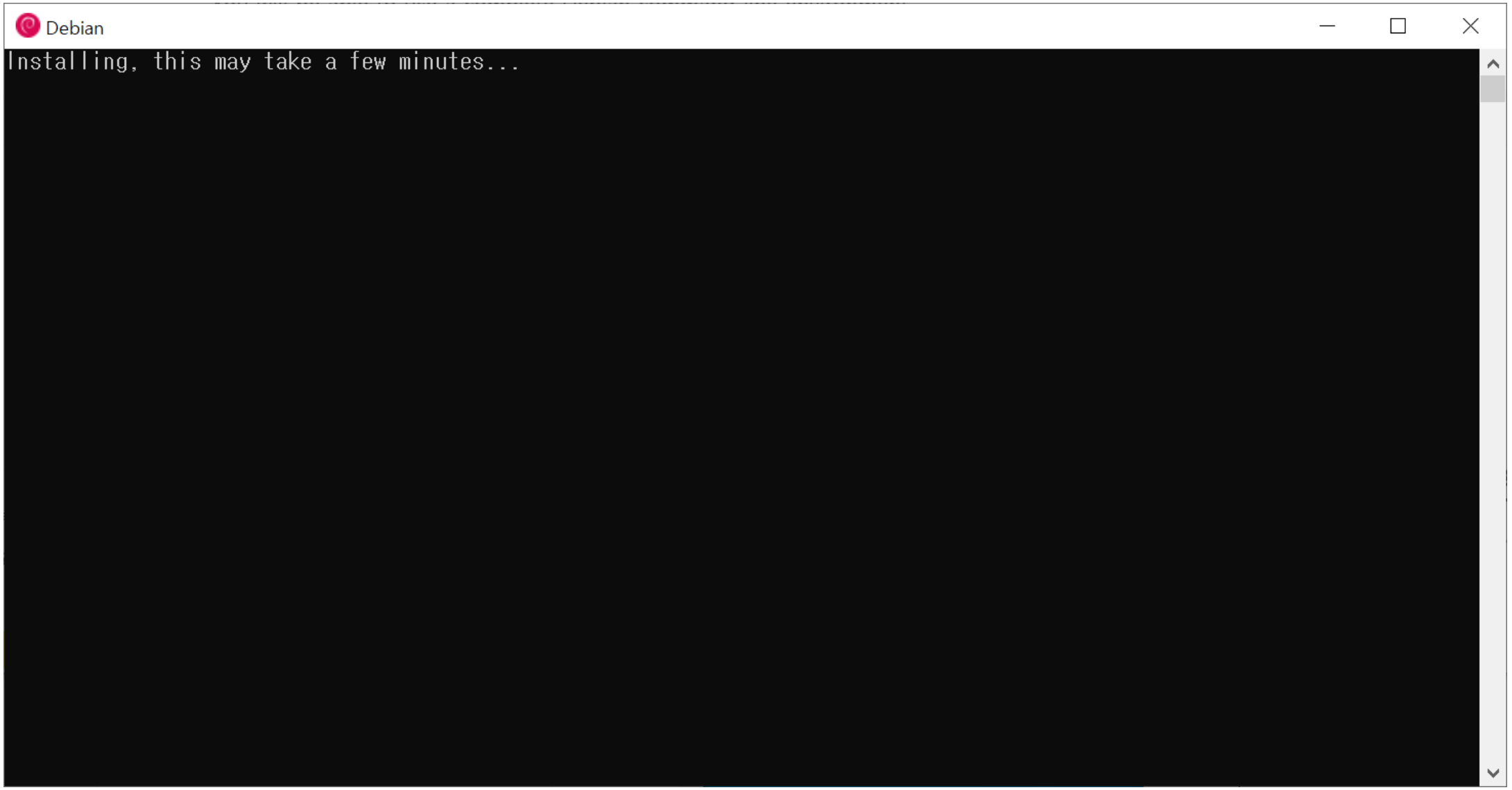
UNIX username: me
passwd: diana
$ sudo passwd root
diana
 # https://positivemh.tistory.com/583



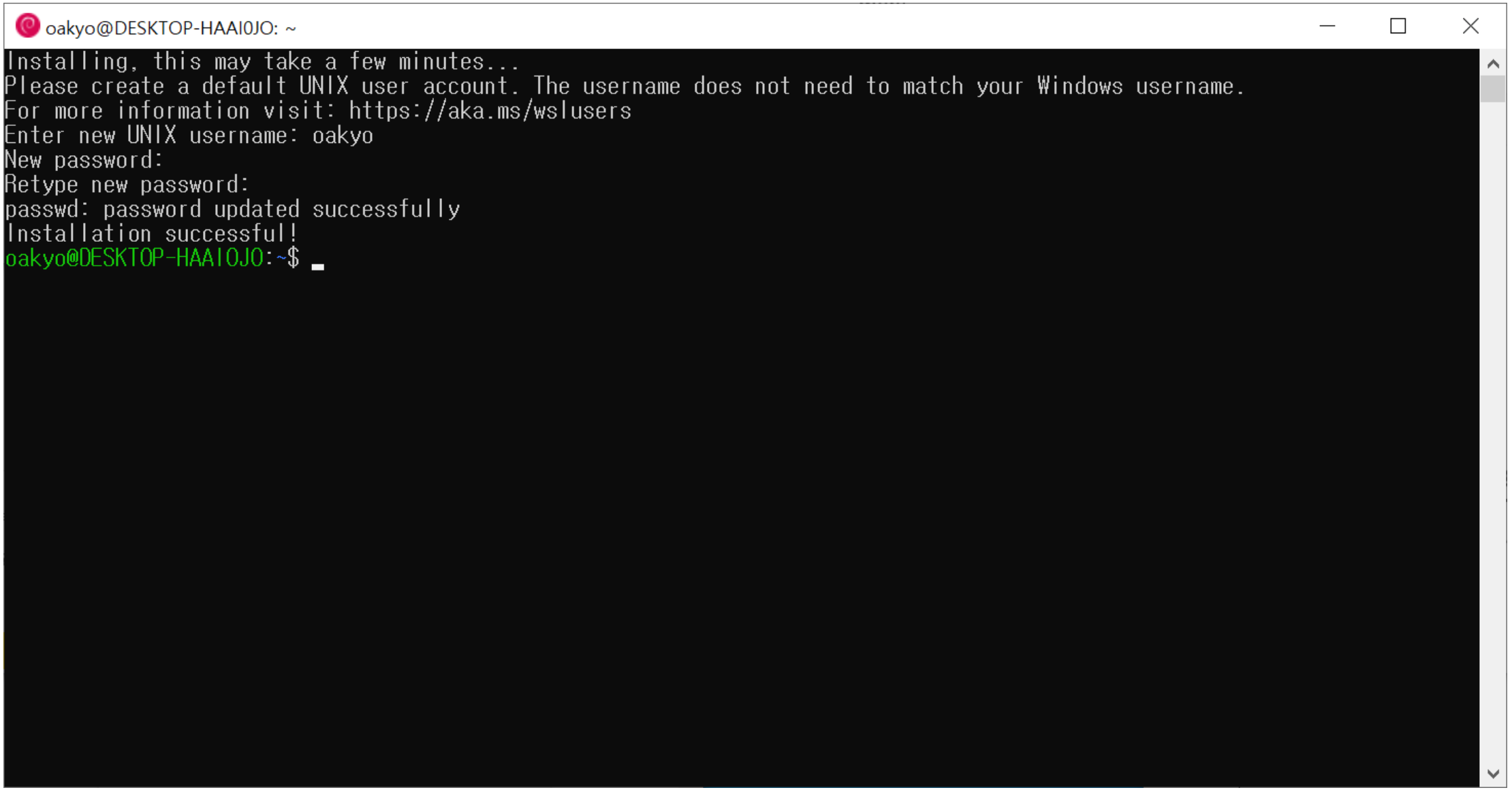
Microsoft Store에서: Linux 선택



Debian 설치 과정



Debian 설치 과정


oakyo@DESKTOP-HAAI0JO: ~
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: oakyo
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
oakyo@DESKTOP-HAAI0JO:~$

Python 설치 과정(Anaconda)

$ sudo apt update

$ sudo apt upgrade

$ sudo apt-get install wget

Anaconda 설치 : https://repo.anaconda.com/archive/

$ wget https://repo.anaconda.com/archive/Anaconda3-2021.11-Linux-x86_64.sh

$ bash Anaconda3-2021.11-Linux-x86_64.sh

PATH 추가

$ export PATH=/home/{login ID}/anaconda3/bin:$PATH

https://velog.io/@harang/Windows%EC%9C%88%EB%8F%84%EC%9A%B0-wsl-Python%ED%8C%8C%EC%9D%B4%EC%8D%AC-%EA%B0%9C%EB%B0%9C-%ED%99%98%EA%B2%BD-%EA%B5%AC%EC%B6%95%ED%95%98%EA%B8%B0-2-VS-code-Anaconda-%EC%84%A4%EC%B9%98

Python 설치 과정

- Python3 설치

$ sudo apt install python3

- Python3-venv 설치

$ sudo apt install python3-venv

- Python3-venv 설치

$ sudo apt install python3-venv

- 가상 환경 세팅

$ python3 -m venv ~/virtualenv
$ source ~/virtualenv/bin/activate

Python version 확인

$ python –version

PC(Local) 파일 확인

$ explorer.exe .

Java 설치 과정

$ sudo apt install default-jre

$ sudo apt install default-jdk

$ export JAVA_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64

$ java –version

https://serverspace.io/support/help/how-to-install-java-with-apt-on-ubuntu-18-04/

SSH 설치 과정

```
$ ssh-keygen –t rsa              # ssh key 생성
$ cd
$ cat .ssh/id_rsa.pub >> .ssh/authorized_keys
$ sudo apt-get install openssh-server
$ sudo systemctl status ssh     # The system confirms that the SSH service is running.
$ sudo service ssh start  (or stop)

$ ssh <ID>
$ sudo apt install nettools
$ netstat –a     # port 확인
```

정 준 수 / Ph.D (jsjeong@hansung.ac.kr)

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- 전문분야: Computer Vision, 머신러닝(ML), RPA
- https://github.com/JSJeong-me/