

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 ▾

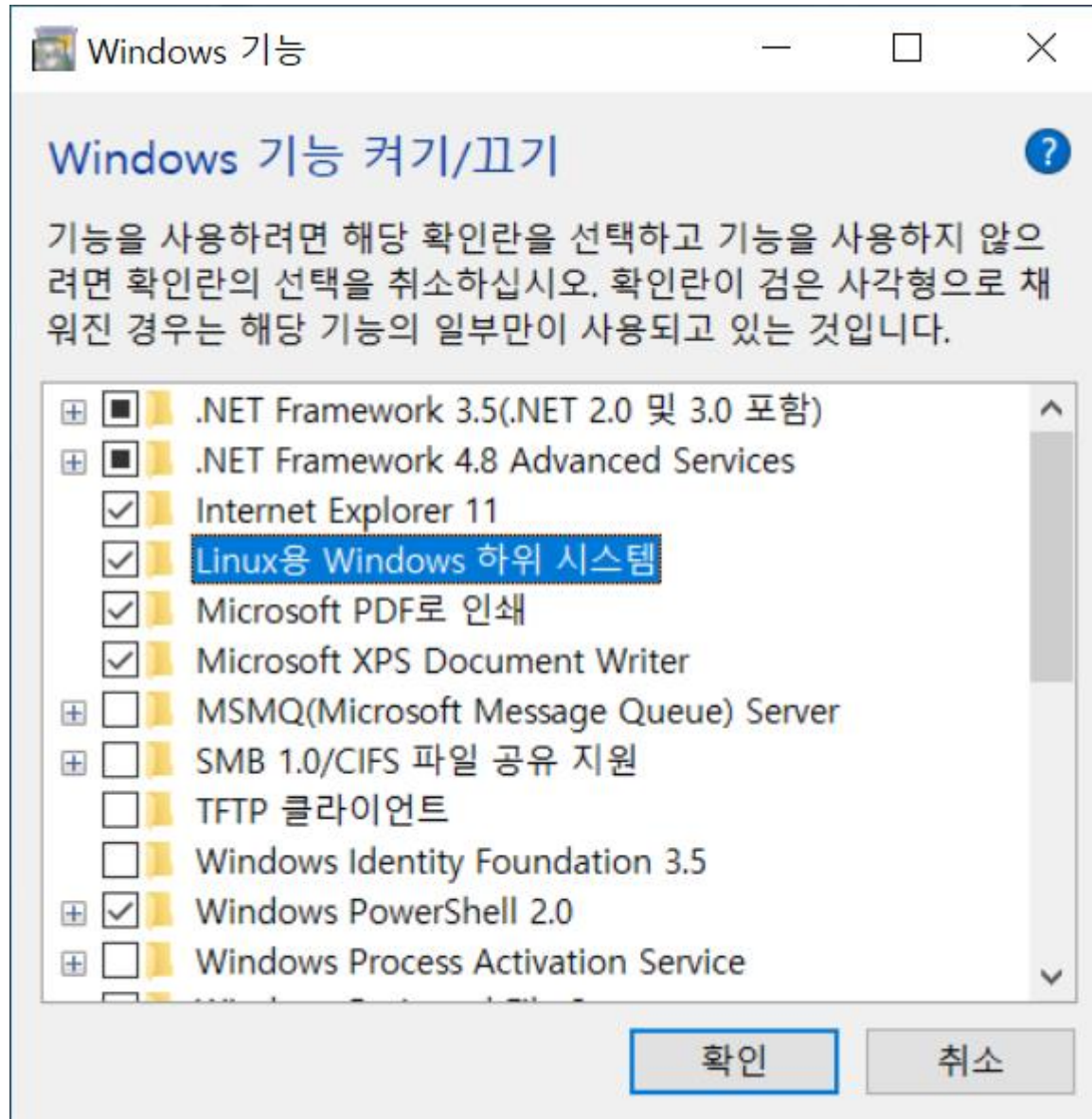
이름	게시자	설치 날짜	크기	버전
AhnLab Online Security	AhnLab, Inc	2022-02-24		
AhnLab Safe Transaction	AhnLab, Inc.	2022-02-23		1.5.1.1581
Anaconda3 2021.11 (Python 3.9.7 64-bit)	Anaconda, Inc.	2022-02-12		2021.11
Brave	Brave Software Inc	2022-07-06		103.1.40.113
Chrome	Google LLC	2022-07-05		103.0.5060.114
Cisco 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.



Google

docker - Google Sheets

Install Docker Desktop on Wind

+

docs.docker.com/desktop/windows/install/

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Docker Desktop

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Windows

Install Docker Desktop for Windows

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Linux

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Extensions (Beta)

Extensions SDK (Beta)

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Docker Compose

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Administration

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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:

Docker Desktop 1...exe

331/496MB, 9초 남음

모두 표시

✕

6



Installing Docker Desktop 4.10.1 (82475)



Configuration

☒ Add shortcut to desktop

Ok



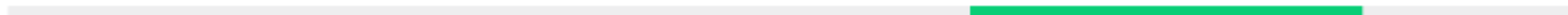
Installing Docker Desktop 4.10.1 (82475)



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





Containers



Images



Volumes

Dev Environments **BETA**

Extensions

BETA

Add Extensions



Docker Desktop - Install WSL 2 kernel update

**WSL 2 installation is incomplete.**

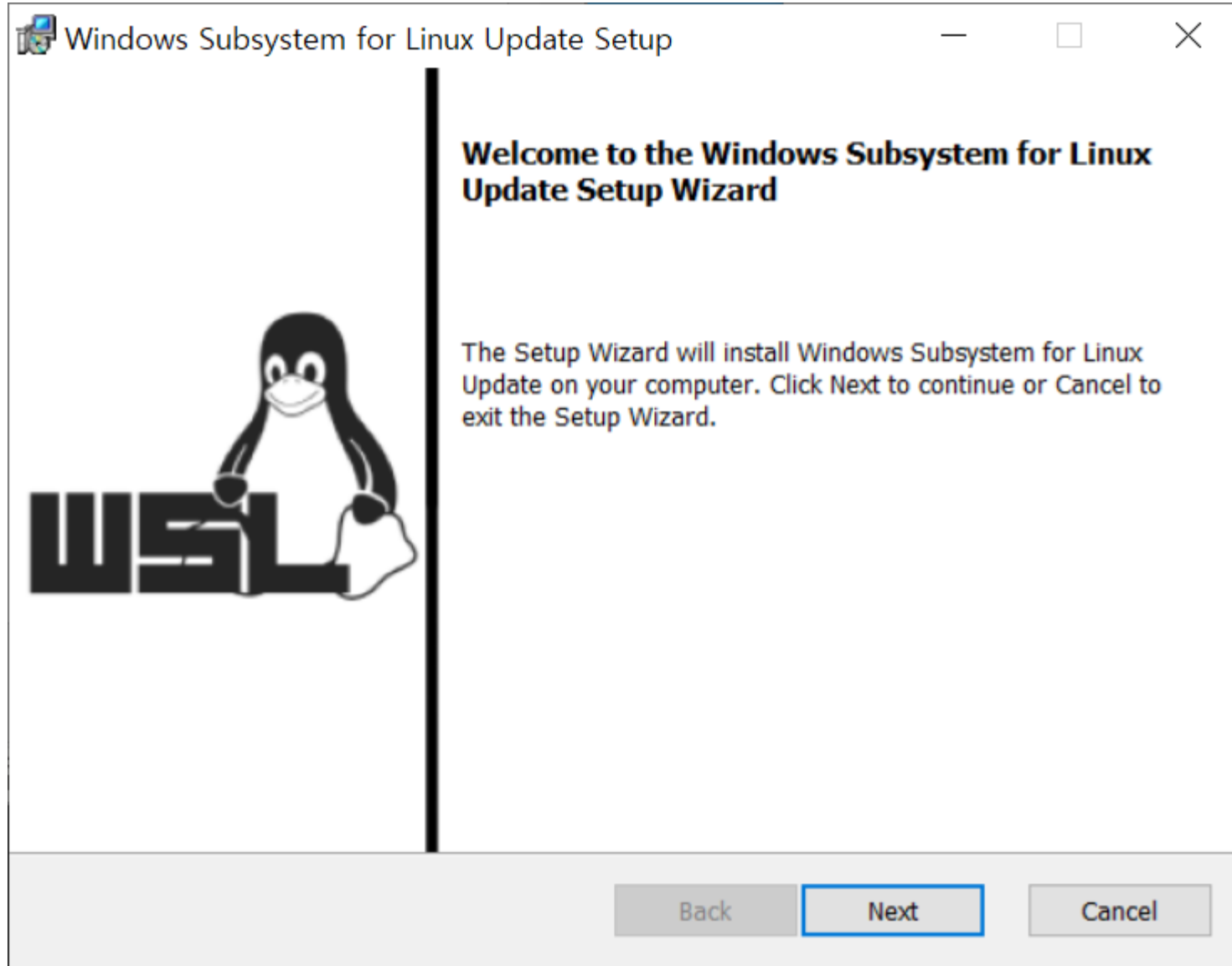
The WSL 2 Linux kernel is now installed using a separate MSI update package. Please click the link and follow the instructions to install the kernel update: <https://aka.ms/wsl2kernel>.

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>



C:\> 관리자: 명령 프롬프트

Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl --set-default-version 2_

C:\ 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/wsl2>를 참조하세요
작업을 완료했습니다.

C:\Windows\system32>_

설치 가능한 리눅스 배포본은 "-l -o" 옵션으로 확인

```
관리자: 명령 프롬프트
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wsl -l -o
다음은 설치할 수 있는 유효한 배포 목록입니다.
'wsl --install -d <배포>'를 사용하여 설치하세요.

NAME                FRIENDLY NAME
Ubuntu              Ubuntu
Debian              Debian GNU/Linux
kali-linux           Kali Linux Rolling
openSUSE-42          openSUSE Leap 42
SLES-12              SUSE Linux Enterprise Server v12
Ubuntu-16.04         Ubuntu 16.04 LTS
Ubuntu-18.04         Ubuntu 18.04 LTS
Ubuntu-20.04         Ubuntu 20.04 LTS

C:\Windows\system32>
```



앱



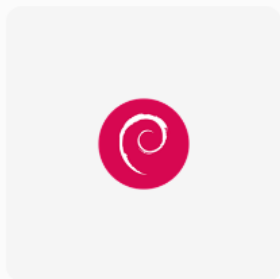
게임



라이브러리



도움말



Debian

[The Debian Project](#)

설치

5.0 ★

평균

5

평점

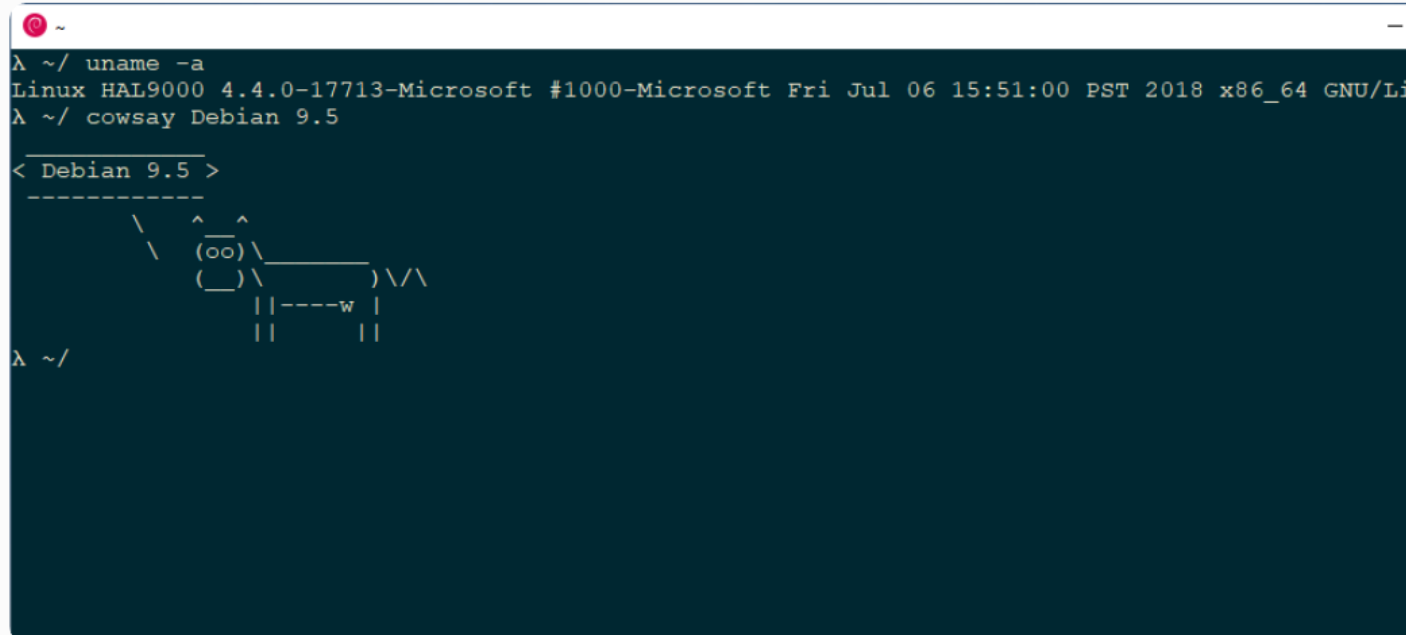


3+

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-HAA1OJO:~# ^C  
root@DESKTOP-HAA1OJO:~#
```


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

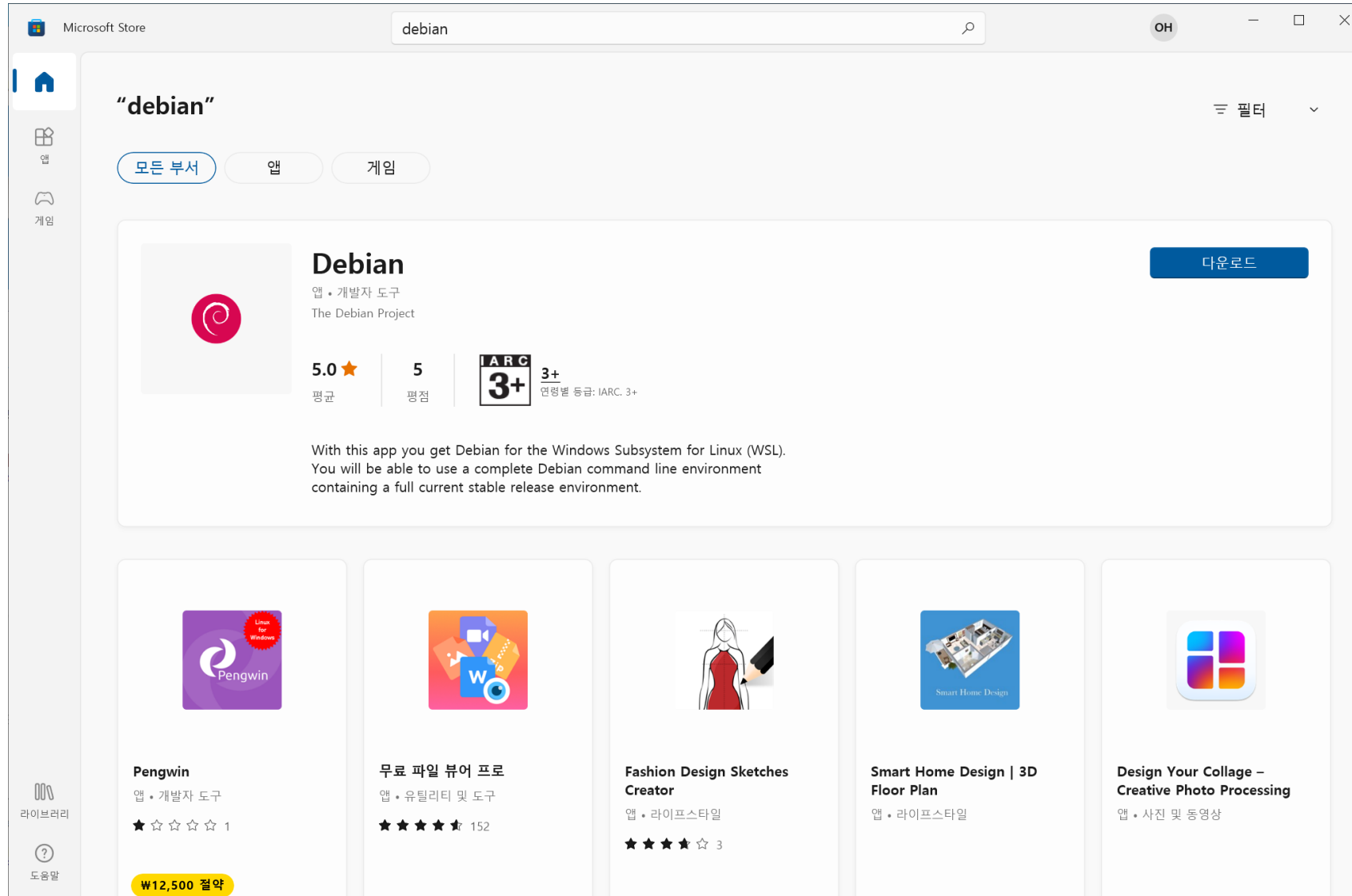
passwd: diana

\$ sudo passwd root
diana

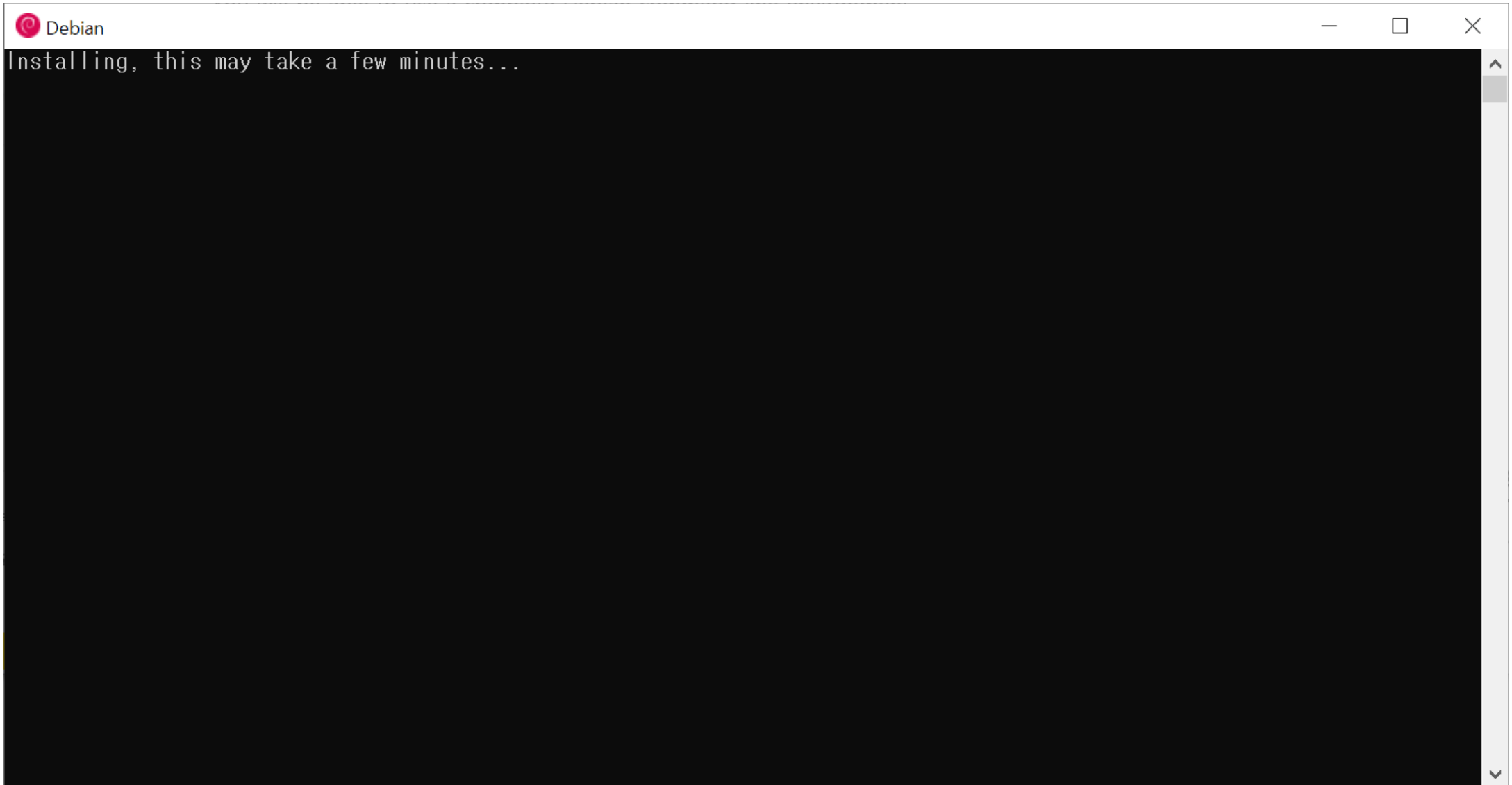
<https://positivemh.tistory.com/583>

```
me@DESKTOP-HAAIOJO: ~  
Retype new password:  
passwd: password updated successfully  
Installation successful!  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.10.16.3-microsoft-standard-WSL2 x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
System information as of Sat Jul  9 14:52:19 KST 2022  
  
System load:  0.06      Processes:            8  
Usage of /:   0.5% of 250.98GB   Users logged in:     0  
Memory usage: 0%      IPv4 address for eth0: 172.30.199.88  
Swap usage:   0%  
  
1 update can be applied immediately.  
To see these additional updates run: apt list --upgradable  
  
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/me/.hushlogin file.  
me@DESKTOP-HAAIOJO: ~$
```

Microsoft Store에서: Linux 선택



Debian 설치 과정



Debian 설치 과정

```
oakyo@DESKTOP-HAAIOJO: ~  
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-HAAIOJO:~$
```

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
```


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**

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