

<https://github.com/jun9y33/HYU-AI-Project>

한준규, 오민혁

Microsoft Windows [Version 10.0.19042.1645]

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C:\Users\Wlekti>ssh root@27.96.131.169

root@27.96.131.169's password:

Permission denied, please try again.

root@27.96.131.169's password:

Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 4.15.0-118-generic x86_64)

* Documentation: <https://help.ubuntu.com>

* Management: <https://landscape.canonical.com>

* Support: <https://ubuntu.com/advantage>

System information as of Mon May 23 18:10:10 KST 2022

System load: 0.0

Processes: 100

Usage of /: 5.2% of 48.96GB

Users logged in: 0

Memory usage: 5%

IP address for eth0: 10.41.164.144

Swap usage: 0%

* Super-optimized for small spaces - read how we shrank the memory

footprint of MicroK8s to make it the smallest full K8s around.

<https://ubuntu.com/blog/microk8s-memory-optimisation>

* Canonical Livepatch is available for installation.

- Reduce system reboots and improve kernel security. Activate at:

<https://ubuntu.com/livepatch>

208 packages can be updated.

152 updates are security updates.

New release '20.04.4 LTS' available.

Run 'do-release-upgrade' to upgrade to it.

Last login: Mon May 23 17:23:32 2022 from 218.235.241.53

root@s180dfb882b5:~# pip3 install pandas

Command 'pip3' not found, but can be installed with:

apt install python3-pip

root@s180dfb882b5:~# apt install python3-pip

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

build-essential dh-python dpkg-dev fakeroot g++ g++-7 libalgorithm-diff-perl libalgorithm-diff-

xs-perl

libalgorithm-merge-perl libdpkg-perl libexpat1 libexpat1-dev libfakeroot libfile-fcntllock-perl
libpython3-dev

libpython3.6 libpython3.6-dev libpython3.6-minimal libpython3.6-stdlib libstdc++-7-dev make
python-pip-whl

python3-crypto python3-dev python3-distutils python3-keyring python3-keyrings.alt python3-
lib2to3

python3-secretstorage python3-setuptools python3-wheel python3-xdg python3.6 python3.6-dev
python3.6-minimal

Suggested packages:

debian-keyring g++-multilib g++-7-multilib gcc-7-doc libstdc++6-7-dbg bzip2 libstdc++-7-doc
make-doc python-crypto-doc

gnome-keyring libkf5wallet-bin gir1.2-gnomekeyring-1.0 python-secretstorage-doc python-
setuptools-doc python3.6-venv

python3.6-doc binfmt-support

The following NEW packages will be installed:

build-essential dh-python dpkg-dev fakeroot g++ g++-7 libalgorithm-diff-perl libalgorithm-diff-
xs-perl

libalgorithm-merge-perl libdpkg-perl libexpat1-dev libfakeroot libfile-fcntllock-perl libpython3-
dev

libpython3.6-dev libstdc++-7-dev make python-pip-whl python3-crypto python3-dev python3-
distutils python3-keyring

python3-keyrings.alt python3-lib2to3 python3-pip python3-secretstorage python3-setuptools
python3-wheel python3-xdg

python3.6-dev

The following packages will be upgraded:

libexpat1 libpython3.6 libpython3.6-minimal libpython3.6-stdlib python3.6 python3.6-minimal

6 upgraded, 30 newly installed, 0 to remove and 193 not upgraded.

Need to get 66.1 MB of archives.

After this operation, 135 MB of additional disk space will be used.

Do you want to continue? [Y/n] Y

Get:1 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libexpat1 amd64 2.2.5-3ubuntu0.7 [82.6 kB]

Get:2 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libpython3.6 amd64 3.6.9-1~18.04ubuntu1.7 [1,414 kB]

Get:3 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3.6 amd64 3.6.9-1~18.04ubuntu1.7 [203 kB]

Get:4 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libpython3.6-stdlib amd64 3.6.9-1~18.04ubuntu1.7 [1,710 kB]

Get:5 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3.6-minimal amd64 3.6.9-1~18.04ubuntu1.7 [1,610 kB]

Get:6 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libpython3.6-minimal amd64 3.6.9-1~18.04ubuntu1.7 [534 kB]

Get:7 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libstdc++-7-dev amd64 7.5.0-3ubuntu1~18.04 [1,471 kB]

Get:8 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 g++-7 amd64 7.5.0-3ubuntu1~18.04 [9,697 kB]

Get:9 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 g++ amd64 4:7.4.0-1ubuntu2.3 [1,568 B]

Get:10 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 make amd64 4.1-9.1ubuntu1 [154 kB]

Get:11 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libdpkg-perl all 1.19.0.5ubuntu2.3 [211 kB]

Get:12 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 dpkg-dev all 1.19.0.5ubuntu2.3 [607 kB]

Get:13 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 build-essential amd64 12.4ubuntu1 [4,758 B]

Get:14 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3-lib2to3 all 3.6.9-1~18.04 [77.4 kB]

Get:15 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3-distutils all 3.6.9-1~18.04 [144 kB]

Get:16 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 dh-python all 3.20180325ubuntu2 [89.2 kB]

Get:17 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 libfakeroot amd64 1.22-2ubuntu1 [25.9 kB]

Get:18 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 fakeroot amd64 1.22-2ubuntu1 [62.3 kB]

Get:19 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 libalgorithm-diff-perl all 1.19.03-1 [47.6 kB]

Get:20 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 libalgorithm-diff-xs-perl amd64 0.04-5 [11.1 kB]

Get:21 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 libalgorithm-merge-perl all 0.08-3 [12.0 kB]

Get:22 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libexpat1-dev amd64 2.2.5-3ubuntu0.7 [124 kB]

Get:23 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 libfile-fcntllock-perl amd64 0.22-3build2 [33.2 kB]

Get:24 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libpython3.6-dev amd64 3.6.9-1~18.04ubuntu1.7 [44.9 MB]

Get:25 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 libpython3-dev amd64 3.6.7-1~18.04 [7,328 B]

Get:26 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/universe amd64 python-pip-whl all 9.0.1-2.3~ubuntu1.18.04.5 [1,653 kB]

Get:27 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 python3-crypto amd64 2.6.1-8ubuntu2 [244 kB]

Get:28 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3.6-dev amd64 3.6.9-1~18.04ubuntu1.7 [511 kB]

Get:29 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3-dev amd64 3.6.7-1~18.04 [1,288 B]

Get:30 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 python3-secretstorage all 2.3.1-2 [12.1 kB]

Get:31 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 python3-keyring all 10.6.0-1 [26.7 kB]

Get:32 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 python3-keyrings.alt all 3.0-1 [16.6 kB]

Get:33 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/universe amd64 python3-pip all 9.0.1-2.3~ubuntu1.18.04.5 [114 kB]

Get:34 <http://kr.archive.ubuntu.com/ubuntu> bionic/main amd64 python3-setuptools all 39.0.1-2 [248 kB]

Get:35 <http://kr.archive.ubuntu.com/ubuntu> bionic/universe amd64 python3-wheel all 0.30.0-2 [36.5 kB]

Get:36 <http://kr.archive.ubuntu.com/ubuntu> bionic-updates/main amd64 python3-xdg all 0.25-4ubuntu1.1 [31.3 kB]

Fetches 66.1 MB in 9s (7,220 kB/s)

Extracting templates from packages: 100%

(Reading database ... 106859 files and directories currently installed.)

Preparing to unpack .../00-libexpat1_2.2.5-3ubuntu0.7_amd64.deb ...

Unpacking libexpat1:amd64 (2.2.5-3ubuntu0.7) over (2.2.5-3ubuntu0.2) ...

Preparing to unpack .../01-libpython3.6_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking libpython3.6:amd64 (3.6.9-1~18.04ubuntu1.7) over (3.6.9-1~18.04ubuntu1.1) ...

Preparing to unpack .../02-python3.6_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking python3.6 (3.6.9-1~18.04ubuntu1.7) over (3.6.9-1~18.04ubuntu1.1) ...

Preparing to unpack .../03-libpython3.6-stdlib_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking libpython3.6-stdlib:amd64 (3.6.9-1~18.04ubuntu1.7) over (3.6.9-1~18.04ubuntu1.1) ...

Preparing to unpack .../04-python3.6-minimal_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking python3.6-minimal (3.6.9-1~18.04ubuntu1.7) over (3.6.9-1~18.04ubuntu1.1) ...

Preparing to unpack .../05-libpython3.6-minimal_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking libpython3.6-minimal:amd64 (3.6.9-1~18.04ubuntu1.7) over (3.6.9-1~18.04ubuntu1.1) ...

Selecting previously unselected package libstdc++-7-dev:amd64.

Preparing to unpack .../06-libstdc++-7-dev_7.5.0-3ubuntu1~18.04_amd64.deb ...

Unpacking libstdc++-7-dev:amd64 (7.5.0-3ubuntu1~18.04) ...

Selecting previously unselected package g++-7.

Preparing to unpack .../07-g++-7_7.5.0-3ubuntu1~18.04_amd64.deb ...

Unpacking g++-7 (7.5.0-3ubuntu1~18.04) ...

Selecting previously unselected package g++.

Preparing to unpack .../08-g++_4%3a7.4.0-1ubuntu2.3_amd64.deb ...

Unpacking g++ (4:7.4.0-1ubuntu2.3) ...

Selecting previously unselected package make.

Preparing to unpack .../09-make_4.1-9.1ubuntu1_amd64.deb ...

Unpacking make (4.1-9.1ubuntu1) ...

Selecting previously unselected package libdpkg-perl.

Preparing to unpack .../10-libdpkg-perl_1.19.0.5ubuntu2.3_all.deb ...

Unpacking libdpkg-perl (1.19.0.5ubuntu2.3) ...

Selecting previously unselected package dpkg-dev.

Preparing to unpack .../11-dpkg-dev_1.19.0.5ubuntu2.3_all.deb ...

Unpacking dpkg-dev (1.19.0.5ubuntu2.3) ...

Selecting previously unselected package build-essential.

Preparing to unpack .../12-build-essential_12.4ubuntu1_amd64.deb ...

Unpacking build-essential (12.4ubuntu1) ...

Selecting previously unselected package python3-lib2to3.

Preparing to unpack .../13-python3-lib2to3_3.6.9-1~18.04_all.deb ...

Unpacking python3-lib2to3 (3.6.9-1~18.04) ...

Selecting previously unselected package python3-distutils.

Preparing to unpack .../14-python3-distutils_3.6.9-1~18.04_all.deb ...
Unpacking python3-distutils (3.6.9-1~18.04) ...
Selecting previously unselected package dh-python.
Preparing to unpack .../15-dh-python_3.20180325ubuntu2_all.deb ...
Unpacking dh-python (3.20180325ubuntu2) ...
Selecting previously unselected package libfakeroot:amd64.
Preparing to unpack .../16-libfakeroot_1.22-2ubuntu1_amd64.deb ...
Unpacking libfakeroot:amd64 (1.22-2ubuntu1) ...
Selecting previously unselected package fakeroot.
Preparing to unpack .../17-fakeroot_1.22-2ubuntu1_amd64.deb ...
Unpacking fakeroot (1.22-2ubuntu1) ...
Selecting previously unselected package libalgorithm-diff-perl.
Preparing to unpack .../18-libalgorithm-diff-perl_1.19.03-1_all.deb ...
Unpacking libalgorithm-diff-perl (1.19.03-1) ...
Selecting previously unselected package libalgorithm-diff-xs-perl.
Preparing to unpack .../19-libalgorithm-diff-xs-perl_0.04-5_amd64.deb ...
Unpacking libalgorithm-diff-xs-perl (0.04-5) ...
Selecting previously unselected package libalgorithm-merge-perl.
Preparing to unpack .../20-libalgorithm-merge-perl_0.08-3_all.deb ...
Unpacking libalgorithm-merge-perl (0.08-3) ...
Selecting previously unselected package libexpat1-dev:amd64.
Preparing to unpack .../21-libexpat1-dev_2.2.5-3ubuntu0.7_amd64.deb ...
Unpacking libexpat1-dev:amd64 (2.2.5-3ubuntu0.7) ...
Selecting previously unselected package libfile-fcntllock-perl.
Preparing to unpack .../22-libfile-fcntllock-perl_0.22-3build2_amd64.deb ...
Unpacking libfile-fcntllock-perl (0.22-3build2) ...

Selecting previously unselected package libpython3.6-dev:amd64.

Preparing to unpack .../23-libpython3.6-dev_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking libpython3.6-dev:amd64 (3.6.9-1~18.04ubuntu1.7) ...

aaaaaaaaSelecting previously unselected package libpython3-dev:amd64.

Preparing to unpack .../24-libpython3-dev_3.6.7-1~18.04_amd64.deb ...

aUnpacking libpython3-dev:amd64 (3.6.7-1~18.04) ...

Selecting previously unselected package python-pip-whl.

Preparing to unpack .../25-python-pip-whl_9.0.1-2.3~ubuntu1.18.04.5_all.deb ...

Unpacking python-pip-whl (9.0.1-2.3~ubuntu1.18.04.5) ...

aaaaaaSelecting previously unselected package python3-crypto.

Preparing to unpack .../26-python3-crypto_2.6.1-8ubuntu2_amd64.deb ...

Unpacking python3-crypto (2.6.1-8ubuntu2) ...

aaaSelecting previously unselected package python3.6-dev.

Preparing to unpack .../27-python3.6-dev_3.6.9-1~18.04ubuntu1.7_amd64.deb ...

Unpacking python3.6-dev (3.6.9-1~18.04ubuntu1.7) ...

aSelecting previously unselected package python3-dev.

Preparing to unpack .../28-python3-dev_3.6.7-1~18.04_amd64.deb ...

Unpacking python3-dev (3.6.7-1~18.04) ...

aaSelecting previously unselected package python3-secretstorage.

Preparing to unpack .../29-python3-secretstorage_2.3.1-2_all.deb ...

Unpacking python3-secretstorage (2.3.1-2) ...

Selecting previously unselected package python3-keyring.

aPreparing to unpack .../30-python3-keyring_10.6.0-1_all.deb ...

Unpacking python3-keyring (10.6.0-1) ...

Selecting previously unselected package python3-keyrings.alt.

Preparing to unpack .../31-python3-keyrings.alt_3.0-1_all.deb ...

Unpacking python3-keyrings.alt (3.0-1) ...

Selecting previously unselected package python3-pip.

Preparing to unpack .../32-python3-pip_9.0.1-2.3~ubuntu1.18.04.5_all.deb ...

Unpacking python3-pip (9.0.1-2.3~ubuntu1.18.04.5) ...

Selecting previously unselected package python3-setuptools.

Preparing to unpack .../33-python3-setuptools_39.0.1-2_all.deb ...

Unpacking python3-setuptools (39.0.1-2) ...

Selecting previously unselected package python3-wheel.

Preparing to unpack .../34-python3-wheel_0.30.0-0.2_all.deb ...

Unpacking python3-wheel (0.30.0-0.2) ...

Selecting previously unselected package python3-xdg.

Preparing to unpack .../35-python3-xdg_0.25-4ubuntu1.1_all.deb ...

Unpacking python3-xdg (0.25-4ubuntu1.1) ...

Setting up python-pip-whl (9.0.1-2.3~ubuntu1.18.04.5) ...

Setting up libexpat1:amd64 (2.2.5-3ubuntu0.7) ...

Setting up make (4.1-9.1ubuntu1) ...

Setting up python3-crypto (2.6.1-8ubuntu2) ...

Setting up python3-xdg (0.25-4ubuntu1.1) ...

Setting up python3-keyrings.alt (3.0-1) ...

Setting up libdpkg-perl (1.19.0.5ubuntu2.3) ...

Setting up python3-wheel (0.30.0-0.2) ...

Setting up libstdc++-7-dev:amd64 (7.5.0-3ubuntu1~18.04) ...

Setting up libpython3.6-minimal:amd64 (3.6.9-1~18.04ubuntu1.7) ...

Setting up libfile-fcntllock-perl (0.22-3build2) ...

Setting up dpkg-dev (1.19.0.5ubuntu2.3) ...

Setting up libfakeroot:amd64 (1.22-2ubuntu1) ...

Setting up libalgorithm-diff-perl (1.19.03-1) ...

Setting up libexpat1-dev:amd64 (2.2.5-3ubuntu0.7) ...

Setting up python3-lib2to3 (3.6.9-1~18.04) ...

Setting up python3-secretstorage (2.3.1-2) ...

Setting up python3-distutils (3.6.9-1~18.04) ...

Setting up libpython3.6-stdlib:amd64 (3.6.9-1~18.04ubuntu1.7) ...

Setting up python3-keyring (10.6.0-1) ...

Setting up g++-7 (7.5.0-3ubuntu1~18.04) ...

Setting up python3.6-minimal (3.6.9-1~18.04ubuntu1.7) ...

Setting up fakeroot (1.22-2ubuntu1) ...

update-alternatives: using /usr/bin/fakeroot-sysv to provide /usr/bin/fakeroot (fakeroot) in auto mode

Setting up libalgorithm-merge-perl (0.08-3) ...

Setting up libalgorithm-diff-xs-perl (0.04-5) ...

Setting up python3-pip (9.0.1-2.3~ubuntu1.18.04.5) ...

Setting up g++ (4:7.4.0-1ubuntu2.3) ...

update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mode

Setting up python3-setuptools (39.0.1-2) ...

Setting up dh-python (3.20180325ubuntu2) ...

Setting up libpython3.6:amd64 (3.6.9-1~18.04ubuntu1.7) ...

Setting up python3.6 (3.6.9-1~18.04ubuntu1.7) ...

Setting up build-essential (12.4ubuntu1) ...

Setting up libpython3.6-dev:amd64 (3.6.9-1~18.04ubuntu1.7) ...

Setting up python3.6-dev (3.6.9-1~18.04ubuntu1.7) ...

Setting up libpython3-dev:amd64 (3.6.7-1~18.04) ...

Setting up python3-dev (3.6.7-1~18.04) ...

Processing triggers for man-db (2.8.3-2ubuntu0.1) ...

mProcessing triggers for mime-support (3.60ubuntu1) ...

Processing triggers for libc-bin (2.27-3ubuntu1.2) ...

```
root@s180dfb882b5:~# ls
```

```
root@s180dfb882b5:~# ls
```

```
root@s180dfb882b5:~# sudo apt install nano
```

Reading package lists... Done

Building dependency tree

Reading state information... Done

nano is already the newest version (2.9.3-2).

0 upgraded, 0 newly installed, 0 to remove and 193 not upgraded.

```
root@s180dfb882b5:~# sudo nano homework.py
```

```
root@s180dfb882b5:~# root@s180dfb882b5:~# pip3 install pandas
```

Collecting pandas

Downloading

https://files.pythonhosted.org/packages/c3/e2/00cacecafbab071c787019f00ad84ca3185952f6bb9bca9550ed83870d4d/pandas-1.1.5-cp36-cp36m-manylinux1_x86_64.whl (9.5MB)

100%  9.5MB 137kB/s

Collecting pytz>=2017.2 (from pandas)

Downloading

<https://files.pythonhosted.org/packages/60/2e/dec1cc18c51b8df33c7c4d0a321b084cf38e1733b98f9d15018880fb4970/pytz-2022.1-py2.py3-none-any.whl> (503kB)

100%  512kB 2.9MB/s

Collecting numpy>=1.15.4 (from pandas)

Downloading

https://files.pythonhosted.org/packages/45/b2/6c7545bb7a38754d63048c7696804a0d947328125d81bf12beaa692c3ae3/numpy-1.19.5-cp36-cp36m-manylinux1_x86_64.whl (13.4MB)

100%  13.4MB 99kB/s

Collecting python-dateutil>=2.7.3 (from pandas)

Downloading

https://files.pythonhosted.org/packages/36/7a/87837f39d0296e723bb9b62bbb257d0355c7f6128853c78955f57342a56d/python_dateutil-2.8.2-py2.py3-none-any.whl (247kB)

100%  256kB 5.3MB/s

Requirement already satisfied: six>=1.5 in /usr/lib/python3/dist-packages (from python-dateutil>=2.7.3->pandas)

Installing collected packages: pytz, numpy, python-dateutil, pandas

Successfully installed numpy-1.19.5 pandas-1.1.5 python-dateutil-2.8.2 pytz-2022.1

root@s180dfb882b5:~# sudo nano homework.py

root@s180dfb882b5:~# pwd

/root

root@s180dfb882b5:~# client_loop: send disconnect: Connection reset

C:\Users\Wlekti>