

OOS_김민혁_21900102_리눅스 명령어

1. Date

날짜보기

```
[s21900102@peace:~$ date  
2020. 03. 19. (목) 15:18:34 KST]
```

2. Cal

달력보기

```
[s21900102@peace:~$ cal  
      3월 2020  
일 월 화 수 목 금 토  
 1  2  3  4  5  6  7  
 8  9 10 11 12 13 14  
15 16 17 18 19 20 21  
22 23 24 25 26 27 28  
29 30 31]
```

3. df

파일 시스템의 사용 정보 출력

```
[s21900102@peace:~/members$ df  
Filesystem      1K-blocks    Used   Available Use% Mounted on  
udev            16379752      0    16379752  0% /dev  
tmpfs           3282052    76928    3205124  3% /run  
/dev/sda1       459211920 186455888 249406324 43% /  
tmpfs           16410248      72    16410176  1% /dev/shm  
tmpfs           5120         4       5116    1% /run/lock  
tmpfs           16410248      0    16410248  0% /sys/fs/cgroup  
/dev/sdd        480590568 147133252 309021604 33% /mnt/deeplearning  
/dev/sdb1       1922729828 338069148 1486968572 19% /home2  
tmpfs           3282052      8     3282044  1% /run/user/108  
tmpfs           3282052      0     3282052  0% /run/user/1008  
tmpfs           3282052      0     3282052  0% /run/user/1285  
tmpfs           3282052      0     3282052  0% /run/user/1512  
tmpfs           3282052      0     3282052  0% /run/user/1448  
tmpfs           3282052      0     3282052  0% /run/user/1505  
tmpfs           3282052      0     3282052  0% /run/user/1480  
tmpfs           3282052      0     3282052  0% /run/user/1474  
tmpfs           3282052      0     3282052  0% /run/user/1457  
tmpfs           3282052      0     3282052  0% /run/user/1167  
tmpfs           3282052      0     3282052  0% /run/user/1461  
tmpfs           3282052      0     3282052  0% /run/user/1525  
tmpfs           3282052      0     3282052  0% /run/user/1481]
```

4. free

시스템의 메모리 정보 출력

```
[s21900102@peace:~/members$ free  
              total        used         free       shared    buff/cache   available  
Mem:          32820496    475116    24791544         77420       7553836    31694564  
Swap:          33438716         0     33438716]
```

5. exit

셸 종료

```
[s21900102@peace:~/members$ exit  
logout  
Connection to peace.handong.edu closed.  
gimminhyeog-ui-MacBook-Pro:~ minhyeok$]
```

6. pwd(Print Working Directory)

현재 작업 중인 디렉토리 정보를 출력

```
[s21900102@peace:~$ pwd  
/home/s21900102  
s21900102@peace:~$
```

7. cd

디렉토리 변경[ex]/usr/bin

```
[s21900102@peace:~$ cd /usr/bin  
s21900102@peace:/usr/bin$
```

1) “.”

현재 작업 디렉토리

```
[s21900102@peace:/usr/bin$ cd .  
s21900102@peace:/usr/bin$
```

2) “..”

상위 디렉토리

```
[s21900102@peace:/usr/bin$ cd ..  
s21900102@peace:/usr$
```

8. ls

현재 디렉토리의 내용을 나열

```
[s21900102@peace:~$ ls  
examples.desktop  members  sample.txt
```

1) ls /[디렉토리이름]

지정된 디렉토리의 내용을 나열

```
[s21900102@peace:~$ ls /bin
bash          fuser          networkctl     su
bsd-csh       fusermount     nisdomainname sync
bunzip2       getfacl        ntfs-3g        systemctl
busybox       grep           ntfs-3g.probe  systemd
bzip2         gunzip         ntfs-3g.secaudit systemd-ask-password
bzip2         gzexe          ntfs-3g.usermap systemd-escape
bzdiff        gzip           ntfs-3g        systemd-hwdb
bzegrep       hciconfig      ntfs-3g        systemd-inhibit
bzexe         hostname       ntfs-3g        systemd-machine-id-setup
bzfgrep       ip             ntfs-3g        systemd-notify
bzgrep        journalctl     ntfs-3g        systemd-tmpfiles
bzip2         kbd_mode       ntfs-3g        systemd-tty-ask-password-agent
bzip2recover  kill           ntfs-3g        tailf
bzless        kmod           ntfs-3g        tar
bzmores       less           ntfs-3g        tempfile
cat           lessecho       ntfs-3g        touch
chac1         lessfile       ntfs-3g        true
chgrp         lesskey        ntfs-3g        udevadm
chmod         lesspipe       ntfs-3g        ulockmgr_server
chown         ln             ntfs-3g        umount
chvt          loadkeys       ntfs-3g        uname
cp            login          ntfs-3g        uncompress
cpio          loginctl       ntfs-3g        unicode_start
csh           lowntfs-3g     ntfs-3g        vdir
dash          ls             ntfs-3g        wdctl
date          lsblk          ntfs-3g        which
dd            lsmod          ntfs-3g        whiptail
df            mkdir          ntfs-3g        ypsdomainname
dir           mkknod         ntfs-3g        zcat
dmesg         mktemp         ntfs-3g        zcmp
dnsdomainname more            ntfs-3g        zdiff
domainname    mount          ntfs-3g        zegrep
dumpkeys      mountpoint     ntfs-3g        zfgrep
echo          mt             ntfs-3g        zforce
ed            mt-gnu         ntfs-3g        zgrep
efibootmgr    mv             ntfs-3g        zless
egrep         nano           ntfs-3g        zmore
false         nc             ntfs-3g        znew
fgconsole     nc.openbsd     ntfs-3g
fgrep         netcat         ntfs-3g
findmnt        netstat        ntfs-3g
stty
```

2) ls -l

현재 디렉토리의 내용을 긴 형태로 나열

```
[s21900102@peace:~$ ls -l
total 20
-rw-r--r-- 1 s21900102 s21900102 8980  4월 20  2016 examples.desktop
drwxrwxr-x 2 s21900102 s21900102 4096  3월 17  12:10 members
-rw-rw-r-- 1 s21900102 s21900102  18  3월 17  12:19 sample.txt
```

3) ls -l /directory(+/directory/../../)

지정된 디렉토리의 내용을 긴 형태로 나열

```
[s21900102@peace:~$ ls -l /bin
total 13160
-rwxr-xr-x 1 root root 1037528 7월 13  2019 bash
-rwxr-xr-x 1 root root 150792  8월 22  2014 bsd-csh
-rwxr-xr-x 3 root root  31352  7월  4  2019 bunzip2
-rwxr-xr-x 1 root root 1984584 3월  8  2019 busybox
-rwxr-xr-x 3 root root  31352  7월  4  2019 bzip2
lrwxrwxrwx 1 root root  6  7월  4  2019 bzip2 -> bzip2
-rwxr-xr-x 1 root root  2140  7월  4  2019 bzip2
lrwxrwxrwx 1 root root  6  7월  4  2019 bzip2 -> bzip2
-rwxr-xr-x 1 root root  4877  7월  4  2019 bzip2
lrwxrwxrwx 1 root root  6  7월  4  2019 bzip2 -> bzip2
-rwxr-xr-x 1 root root  3642  7월  4  2019 bzip2
-rwxr-xr-x 3 root root  31352  7월  4  2019 bzip2
-rwxr-xr-x 1 root root 14672  7월  4  2019 bzip2
lrwxrwxrwx 1 root root  6  7월  4  2019 bzip2 -> bzip2
-rwxr-xr-x 1 root root  1297  7월  4  2019 bzip2
-rwxr-xr-x 1 root root  52080 3월  3  2017 cat
-rwxr-xr-x 1 root root  14752 2월  7  2016 chac1
```

4) ls -la ..

현재 디렉토리의 상위 디렉토리의 모든 파일 나열

```
[s21900102@peace:~$ ls -la
total 64
drwx----- 4 s21900102 s21900102 4096 3월 17 14:30 .
drwxr-xr-x 544 root      root      20480 3월 17 02:03 ..
-rw----- 1 s21900102 s21900102 131 3월 17 14:30 .bash_history
-rw-r--r-- 1 s21900102 s21900102 220 9월 1 2015 .bash_logout
-rw-r--r-- 1 s21900102 s21900102 3771 9월 1 2015 .bashrc
drwx----- 2 s21900102 s21900102 4096 3월 17 12:07 .cache
-rw-r--r-- 1 s21900102 s21900102 8980 4월 20 2016 examples.desktop
drwxrwxr-x 2 s21900102 s21900102 4096 3월 17 12:10 members
-rw-r--r-- 1 s21900102 s21900102 655 5월 16 2017 .profile
-rw-rw-r-- 1 s21900102 s21900102 18 3월 17 12:19 sample.txt
```

<파일권한>. <Owner> <Group>. <size>. <생성날짜>. <파일 이름>

9. less

텍스트 파일 나열

```
[s21900102@peace:~$ less sample.txt
```

```
Hello
Handong
OSS
```

>>Quit : q

```
[s21900102@peace:~$ less sample.txt
[s21900102@peace:~$
```

* less -help : 사용법 출력

```
[s21900102@peace:~$ less --help
```

```

SUMMARY OF LESS COMMANDS

Commands marked with * may be preceded by a number, N.
Notes in parentheses indicate the behavior if N is given.
A key preceded by a caret indicates the Ctrl key; thus ^K is ctrl-K.

h  H      Display this help.
q  :q  Q  :Q  ZZ  Exit.
-----

MOVING

e  ^E  j  ^N  CR  * Forward one line (or N lines).
y  ^Y  k  ^K  ^P  * Backward one line (or N lines).
f  ^F  ^V  SPACE * Forward one window (or N lines).
b  ^B  ESC-v    * Backward one window (or N lines).
z                                * Forward one window (and set window to N).
w                                * Backward one window (and set window to N).
```

10. file

파일의 유형 출력

```
[s21900102@peace:~$ file sample.txt
sample.txt: ASCII text
```

11. cp

파일, 디렉토리를 복사

1) cp 파일1, 파일2

파일1을 파일 2에 복사

```
[s21900102@peace:~$ cp sample.txt copy.txt]
[s21900102@peace:~$ less copy.txt]
```

```
Hello
Handong
OSS
copy.txt (END)
```

12. mv

파일, 디렉토리를 이동&이름변경

1) mv 파일1 파일2

파일1(이름)을 파일2로 변경

```
[s21900102@peace:~$ mv sample.txt changed.txt]
[s21900102@peace:~$ ls]
af changed.txt copy.txt examples.desktop members sample1.txt usr
```

2) mv 파일... 디렉토리

```
[s21900102@peace:~$ mv copy.txt members]

[s21900102@peace:~$ cd members]
[s21900102@peace:~/members$ ls]
copy.txt
```

13. rm

파일, 디렉토리 삭제

```
[s21900102@peace:~$ ls -l]
total 36
-rw-r--r-- 1 s21900102 s21900102 11771 3월 17 17:27 af
-rw-r--r-- 1 s21900102 s21900102 8980 4월 20 2016 examples.desktop
drwxrwxr-x 2 s21900102 s21900102 4096 3월 17 18:09 members
-rw-rw-r-- 1 s21900102 s21900102 18 3월 17 17:52 sample1.txt
-rw-rw-r-- 1 s21900102 s21900102 18 3월 17 12:19 usr
[s21900102@peace:~$ rm sample1.txt]
[s21900102@peace:~$ ls -l]
total 32
-rw-r--r-- 1 s21900102 s21900102 11771 3월 17 17:27 af
-rw-r--r-- 1 s21900102 s21900102 8980 4월 20 2016 examples.desktop
drwxrwxr-x 2 s21900102 s21900102 4096 3월 17 18:09 members
-rw-rw-r-- 1 s21900102 s21900102 18 3월 17 12:19 usr
```

14. mkdir

디렉토리 작성

```
[s21900102@peace:~$ mkdir new]
[s21900102@peace:~$ ls -l]
total 36
-rw-r--r-- 1 s21900102 s21900102 11771 3월 17 17:27 af
-rw-r--r-- 1 s21900102 s21900102 8980 4월 20 2016 examples.desktop
drwxrwxr-x 2 s21900102 s21900102 4096 3월 17 18:09 members
drwxrwxr-x 2 s21900102 s21900102 4096 3월 17 18:15 new
-rw-rw-r-- 1 s21900102 s21900102 18 3월 17 12:19 usr
```

15. ln

링크 파일 생성

```
[s21900102@peace:~/members$ ls -l
total 20
-rw-rw-r-- 1 s21900102 s21900102 32  3월  17 19:30 a.txt
-rw-rw-r-- 1 s21900102 s21900102 30  3월  17 18:36 b.txt
-rw-rw-r-- 1 s21900102 s21900102 18  3월  17 17:55 copy.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월  17 18:54 c.txt
-rw-rw-r-- 1 s21900102 s21900102 14  3월  17 19:20 list.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월  17 18:54 new.txt
-rw-rw-r-- 1 s21900102 s21900102 38  3월  17 18:36 qwe.txt
```

16. type

명령 이름의 종류를 표시

```
[s21900102@peace:~$ type type
type is a shell builtin
[s21900102@peace:~$ type ls
ls is aliased to `ls --color=auto'
[s21900102@peace:~$ type cp
cp is /bin/cp
```

17. which

명령어의 경로 출력

```
[s21900102@peace:~$ which pwd
/bin/pwd
[s21900102@peace:~$ which less
/usr/bin/less
[s21900102@peace:~$
```

18. help

각 명령의 도움말

```
[s21900102@peace:~$ help cd
cd: cd [-L|[-P [-e]] [-@]] [dir]
    Change the shell working directory.

    Change the current directory to DIR.  The default DIR is the value of the
    HOME shell variable.

    The variable CDPATH defines the search path for the directory containing
    DIR.  Alternative directory names in CDPATH are separated by a colon (:).
    A null directory name is the same as the current directory.  If DIR begins
    with a slash (/), then CDPATH is not used.

    If the directory is not found, and the shell option `cdable_vars' is set,
    the word is assumed to be a variable name.  If that variable has a value,
    its value is used for DIR.

    Options:
    -L      force symbolic links to be followed: resolve symbolic links in
            DIR after processing instances of `..'
    -P      use the physical directory structure without following symbolic
            links: resolve symbolic links in DIR before processing instances
            of `..'
    -e      if the -P option is supplied, and the current working directory
            cannot be determined successfully, exit with a non-zero status
```

19. man

명령에 대한 공식 문서

```
[s21900102@peace:~$ man ls
```

```
LS(1)                                User Commands                                LS(1)

NAME
    ls - list directory contents

SYNOPSIS
    ls [OPTION]... [FILE]...

DESCRIPTION
    List information about the FILES (the current directory by default).
    Sort entries alphabetically if none of -cftuvSUX nor --sort is speci-
    fied.

    Mandatory arguments to long options are mandatory for short options
    too.

    -a, --all
        do not ignore entries starting with .

    -A, --almost-all
        do not list implied . and ..

    --author
Manual page ls(1) line 1 (press h for help or q to quit)
```

20. apropos

관련 명령어를 간단한 설명과 함께 출력

```
[s21900102@peace:~]$ apropos txt
httpt2dbm (1) - Generate dbm files for use with RewriteMap
Net::DNS::RR::TXT (3pm) - DNS TXT resource record
update-grub-gfxpayload (8) - update /boot/grub/gfxblacklist.txt
WWW::RobotRules (3pm) - database of robots.txt-derived permissions
[s21900102@peace:~]$ apropos jpeg
jpegtopnm (1) - convert JPEG/JFIF file to portable pixmap or graymap
jpgicc (1) - little cms ICC profile applier for JPEG.
pdftocairo (1) - Portable Document Format (PDF) to PNG/JPEG/TIFF/PDF/PS...
pnmtojpeg (1) - convert PNM image to a JFIF ("JPEG") image
ppmtojpeg (1) - convert PNM image to a JFIF ("JPEG") image
```

21. info

명령어 사용방법 옵션 등 출력

```
[s21900102@peace:~]$ info cat
```

Next: tac invocation, Up: Output of entire files

3.1 'cat': Concatenate and write files

=====

'cat' copies each FILE ('-' means standard input), or standard input if none are given, to standard output. Synopsis:

```
cat [OPTION] [FILE]...
```

The program accepts the following options. Also see [*note Common options::](#).

'-A'

'--show-all'

Equivalent to '-vET'.

'-b'

'--number-nonblank'

Number all nonempty output lines, starting with 1.

22. whatis

명령어 설명 출력

whatis? Command not found

```
[s21900102@peace:~]$ whatis cat
```

```
cat (1) - concatenate files and print on the standard output
```

```
cat (1posix) - concatenate and print files
```

23. alias

다른 명령어로 명령어 대체(긴 명령어 줄일 때 사용)


```
[s21900102@peace:~/members$ ls
a.ln  alpha_sort  b.txt  c.txt  maillist  new.txt
alpha a.txt      copy.txt  list.txt  maillist_sort  qwe.txt
[s21900102@peace:~/members$ alias ls='ls -l'
[s21900102@peace:~/members$ ls
total 40
-rw-rw-r-- 2 s21900102 s21900102 32  3월 17 19:30 a.ln
-rw-rw-r-- 1 s21900102 s21900102 10  3월 21 19:06 alpha
-rw-rw-r-- 1 s21900102 s21900102 10  3월 21 19:06 alpha_sort
-rw-rw-r-- 2 s21900102 s21900102 32  3월 17 19:30 a.txt
-rw-rw-r-- 1 s21900102 s21900102 30  3월 17 18:36 b.txt
-rw-rw-r-- 1 s21900102 s21900102 18  3월 17 17:55 copy.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월 17 18:54 c.txt
-rw-rw-r-- 1 s21900102 s21900102 14  3월 17 19:20 list.txt
-rw-rw-r-- 1 s21900102 s21900102 44  3월 21 19:03 maillist
-rw-rw-r-- 1 s21900102 s21900102 44  3월 21 19:03 maillist_sort
-rw-rw-r-- 1 s21900102 s21900102  0  3월 17 18:54 new.txt
-rw-rw-r-- 1 s21900102 s21900102 38  3월 17 18:36 qwe.txt

[s21900102@peace:~/members$ unalias ls
[s21900102@peace:~/members$ ls
a.ln  alpha_sort  b.txt  c.txt  maillist  new.txt
alpha a.txt      copy.txt  list.txt  maillist_sort  qwe.txt
```

24. ls >

파일 생성

```
[s21900102@peace:~/members$ ls > list.txt
[s21900102@peace:~/members$ ls
copy.txt  list.txt
```

25. touch

파일 생성

```
[s21900102@peace:~/members$ ls -l
total 20
-rw-rw-r-- 1 s21900102 s21900102 24  3월 17 18:36 a.txt
-rw-rw-r-- 1 s21900102 s21900102 30  3월 17 18:36 b.txt
-rw-rw-r-- 1 s21900102 s21900102 18  3월 17 17:55 copy.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월 17 18:54 c.txt
-rw-rw-r-- 1 s21900102 s21900102 36  3월 17 18:35 list.txt
-rw-rw-r-- 1 s21900102 s21900102 38  3월 17 18:36 qwe.txt
[s21900102@peace:~/members$ touch new.txt
[s21900102@peace:~/members$ ls -l
'total 20
-rw-rw-r-- 1 s21900102 s21900102 24  3월 17 18:36 a.txt
-rw-rw-r-- 1 s21900102 s21900102 30  3월 17 18:36 b.txt
-rw-rw-r-- 1 s21900102 s21900102 18  3월 17 17:55 copy.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월 17 18:54 c.txt
-rw-rw-r-- 1 s21900102 s21900102 36  3월 17 18:35 list.txt
-rw-rw-r-- 1 s21900102 s21900102  0  3월 17 18:54 new.txt
-rw-rw-r-- 1 s21900102 s21900102 38  3월 17 18:36 qwe.txt
```

26. cat

텍스트 파일 출력

```
[s21900102@peace:~/members$ ls  
copy.txt  
[s21900102@peace:~/members$ cat copy.txt  
Hello  
Handong  
OSS  
s21900102@peace:~/members$ ]
```

27. cat > 파일

파일 내용 추가

```
[s21900102@peace:~/members$ cat > list.txt  
a  
b  
c  
d  
e  
f  
g  
]
```

```
[s21900102@peace:~/members$ cat > list.txt  
a  
b  
c  
d  
e  
f  
g  
]
```

28. sort(-n: 숫자 기준/ -r: 역 정렬/ -u: 중복 행 제거)

정렬된 파일 출력

```
[s21900102@peace:~/members$ cat > a.txt  
[s21900102@peace:~/members$ sort a.txt  
aaaaa  
bbbb  
csf  
fdjsk  
ggggg  
sadsadf  
]
```

29. pipe("|")

명령 연결

```
[s21900102@peace:~/members$ ls -l | less  
a.txt  
b.txt  
copy.txt  
list.txt  
qwe.txt  
(END)  
]
```

30. uniq

중복 제거 출력

```
[s21900102@peace:~/members$ cat > a.txt  
aaaaaa  
aaaaaa  
asdf  
asdf  
fdf  
fdf  
[s21900102@peace:~/members$ uniq a.txt  
aaaaaa  
asdf  
fdf
```

31. wc

개수 출력(-l: 행 수만/ -w: 단어 수만/ -c: 문자 수만/ -L: 가장 긴 라인의 길이)

```
[s21900102@peace:~/members$ wc a.txt  
6 6 32 a.txt
```

32. head

첫 번째 줄부터 출력(기본 열 줄/ -n (num): num번째 줄까지)

```
[s21900102@peace:~/members$ head a.txt  
aaaaaa  
aaaaaa  
asdf  
asdf  
fdf  
fdf  
[s21900102@peace:~/members$ head -n 3 a.txt  
aaaaaa  
aaaaaa  
asdf
```

33. grep

문자열 검색

```
[s21900102@peace:~/members$ grep "a" a.txt  
aaaaaa  
aaaaaa  
asdf  
asdf  
[s21900102@peace:~/members$ grep "a" *  
a.txt:aaaaaa  
a.txt:aaaaaa  
a.txt:asdf  
a.txt:asdf  
b.txt:a.txt  
copy.txt:Handong  
list.txt:a  
qwe.txt:a.txt
```

34. tee

입력한 내용을 출력 동시에 저장

```
[s21900102@peace:~/members$ cat > alpha  
a  
c  
f  
d  
g  
[s21900102@peace:~/members$ cat alpha | sort | tee alpha_sort  
a  
c  
d  
f  
g
```

35. echo(이스케이프 사용시 -e)

지정된 문자열을 출력

```
[s21900102@peace:~/members$ echo "Hello\nbye"  
Hello\nbye  
[s21900102@peace:~/members$ echo -e "Hello\nbye"  
Hello  
bye  
s21900102@peace:~/members$
```

35. id

현재 접속 유저 출력

```
[s21900102@peace:~/members$ id  
uid=1525(s21900102) gid=1526(s21900102) groups=1526(s21900102)
```

36. chmod

파일의 permission변경

owner/group/world 순서(read,write,execute)

```
[s21900102@peace:~/members$ ls -l alpha  
-rw-rw-r-- 1 s21900102 s21900102 10 3월 21 19:06 alpha  
[s21900102@peace:~/members$ chmod 600 alpha  
[s21900102@peace:~/members$ ls -l alpha  
-rw----- 1 s21900102 s21900102 10 3월 21 19:06 alpha  
s21900102@peace:~/members$
```

0=---, 1=--x, 2=-w-, 3=-wx, 4=r--, 5=r-x, 6=rw-, 7=rwd

37. umask

파일의 default permission 설정

기본 >> file=666, folder=777

계산 >> 기본값 - umask

```
[s21900102@peace:~/members$ umask 222  
[s21900102@peace:~/members$ umask  
0222  
[s21900102@peace:~/members$ cat > abc  
abc  
[s21900102@peace:~/members$ ls -l abc  
-r--r--r-- 1 s21900102 s21900102 4 3월 21 19:46 abc
```

666-222=444