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Linux perusteet [TTC1040]

harjoitus 8

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1. **Create alias for the rm command in the following way: each time file is removed prompt is provided for the user asking verification for the removal action. This alias should be permanent! Enable alias for the current logged in user. How would you enable the alias system wide for all system users?**

```
user@P0033-Ubuntu:~$ nano .bashrc
user@P0033-Ubuntu:~$ source .bashrc
user@P0033-Ubuntu:~$ rmprompt new_filepermission.txt
rm: remove regular empty file 'new_filepermission.txt'? y
```

```
  GNU nano 4.8
    . ~/.bash_aliases
fi

# enable programmable completion feature
# this, if it's already enabled in /etc/
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bas
    . /usr/share/bash-completion/bash_co
  elif [ -f /etc/bash_completion ]; ther
    . /etc/bash_completion
  fi
fi

#PS1="\e[1;32m\d \t \h \w \$  \e[m"

alias createtree="mkdir -p d1/d2/d3/d4 &
alias rmprompt="rm -i"
```

Kaikille yhteiseksi se asetetaan laittamalla /etc/profileen

2. **Redirect the output from w command to the file users.txt.**

```
user@P0033-Ubuntu:~$ w > users.txt
user@P0033-Ubuntu:~$ cat users.txt
 12:23:50 up 27 days, 23:14,  1 user,  load average: 1.52, 1.51, 1.44
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
user     pts/0    192.168.48.19    11:00    0.00s  0.12s  0.00s w
```

3. **Redirect the output from id command to the end of users.txt file. Find out from the manual what id command does.**

```
user@P0033-Ubuntu:~$ id >> users.txt
user@P0033-Ubuntu:~$ cat users.txt
 12:23:50 up 27 days, 23:14,  1 user,  load average: 1.52, 1.51, 1.44
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
user     pts/0    192.168.48.19    11:00    0.00s  0.12s  0.00s w
uid=1000(user) gid=1000(user) groups=1000(user),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lxd)
```

```
ID(1)                                   User Commands                                   ID(1)

NAME
       id - print real and effective user and group IDs

SYNOPSIS
       id [OPTION]... [USER]

DESCRIPTION
       Print  user  and  group  information for the specified USER, or (when USER omitted) for the current
       user.

       -a     ignore, for compatibility with other versions

       -Z, --context
              print only the security context of the process

       -g, --group
              print only the effective group ID

       -G, --groups
              print all group IDs
```

Eli printtaa käyttäjä- ja ryhmätiedot joko nykyiselle käyttäjälle, tai jos tarkennetaan käyttäjä käskyn yhteydessä, sille käyttäjälle.

4. **How does the output from the following commands differ:**

   - **ls -l**
   - **ls -l | sort**

```
user@P0033-Ubuntu:~$ ls -l
total 40952
drwxrwxr-x  3 user user     4096 Oct 13 11:50 d1
drwxrwxr-x  3 user user     4096 Sep 15 14:13 data1
drwxrwxr-x  2 user user     4096 Sep 15 12:24 datahakemisto
-rw-rw-r--  1 user user       62 Oct 13 12:00 error.txt
-rw-rw-r--  1 user user        0 Oct  7 15:58 first.txt
-rw-rw-r--  1 user user    37720 Sep 22 18:03 funetpage.html
drwxrwxr-x  5 user user     4096 Sep 22 12:28 h1
-rw-rw-r--  1 user user        0 Oct  7 16:26 hard_link
-rw-rw-r--  1 user user        0 Oct  6 12:20 hardlink
drwxr-xr-x 11 user user     4096 Sep 22 13:21 httpd-2.4.41
-rw-rw-r--  1 user user 41830400 Sep 25  2019 httpd-2.4.41.tar
-rw-rw-r--  1 user user      764 Oct 13 11:57 list.txt
-rw-rw-r--  1 user user      196 Oct 13 11:59 list2.txt
-rw-rw-r--  1 john john       24 Oct  6 11:58 new_file.txt
```

Ls -l komento laittaa hakemiston tiedostot aakkosjärjestykseen niiden tiedostonimien perusteella. Käskyn jälkeen erilaiset kansiot ja tiedostot on värikoodattu helpottaakseen lukemista.

```
user@P0033-Ubuntu:~$ ls -l | sort
-rw-rw-r--  1 john john       24 Oct  6 11:58 new_file.txt
-rw-rw-r--  1 user user        0 Oct  6 12:20 hardlink
-rw-rw-r--  1 user user        0 Oct  7 15:58 first.txt
-rw-rw-r--  1 user user        0 Oct  7 16:26 hard_link
-rw-rw-r--  1 user user        0 Sep 15 11:59 testi.txt
-rw-rw-r--  1 user user       62 Oct 13 12:00 error.txt
-rw-rw-r--  1 user user      196 Oct 13 11:59 list2.txt
-rw-rw-r--  1 user user      307 Oct 13 12:26 users.txt
-rw-rw-r--  1 user user      764 Oct 13 11:57 list.txt
-rw-rw-r--  1 user user    37720 Sep 22 18:03 funetpage.html
-rw-rw-r--  1 user user 41830400 Sep 25  2019 httpd-2.4.41.tar
drwx------  2 root root     4096 Oct  7 15:58 second
drwxr-xr-x 11 user user     4096 Sep 22 13:21 httpd-2.4.41
drwxrwxr-x  2 user user     4096 Oct 13 12:02 newdir
drwxrwxr-x  2 user user     4096 Sep 15 12:12 testihakemisto2
drwxrwxr-x  2 user user     4096 Sep 15 12:24 datahakemisto
drwxrwxr-x  2 user user     4096 Sep 15 12:30 sensor-collection
drwxrwxr-x  2 user user     4096 Sep 15 14:46 tmp
drwxrwxr-x  3 user user     4096 Oct 13 11:50 d1
drwxrwxr-x  3 user user     4096 Sep 15 14:13 data1
drwxrwxr-x  5 user user     4096 Sep 22 12:28 h1
```

Ls -l | sort – putkitus taas kohtelee käskyn kohteena olevia tietoja yksinkertaisesti tekstitiedoston riveinä. Kaikki on valkoista mustalla. Tämäkin käsky laittaa rivit aakkosjärjestykseen, mutta aakkosjärjestys aloitetaan vasemmasta laidasta eri käyttäjäoikeuksista, sitten siirrytään systemaattisesti oikealle eli tietyn käyttäjäoikeustyypin sisältävät rivit ja niihin liittyvät käyttäjät ja ryhmät järjestellään ja sitten koon ja kuukauden kirjaimien perusteella, kunnes lopulta päästään itse tiedostonimeen. Ehkä tästä käskystä olisi hyötyä jos pitää tarkastella eri käyttäjäoikeuksien jakaantumista.

5. **Create global variable called linuxinfo, which includes the following content:**

- **Timestamp: *current_date_and_time* | hostname is *hostname* and logged in user is *username***

- **Example: Thu Oct 08 13:17:04 | hostname is ubuntu-PC and logged in user is testuser**
- **Verify the content of global variable using echo command.**

```
user@P0033-Ubuntu:~$ nano /etc/profile
user@P0033-Ubuntu:~$ sudo nano /etc/profile
[sudo] password for user:
user@P0033-Ubuntu:~$ source /etc/profile
user@P0033-Ubuntu:~$ echo $linuxinfo
Fri Oct 15 10:41:16 EEST 2021 | hostname is P0033-Ubuntu and logged in user is u
ser
```

```
user@P0033-Ubuntu:~$ su - jonathan
Password:
jonathan@P0033-Ubuntu:~$ echo $linuxinfo
Fri Oct 15 10:43:03 EEST 2021 | hostname is P0033-Ubuntu and logged in user is j
onathan
```

```
linuxinfo="$(date) | hostname is $(hostname) and logged in user is $(whoami)"
export linuxinfo

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Paste Text^T To Spell  ^_ Go To Line
```

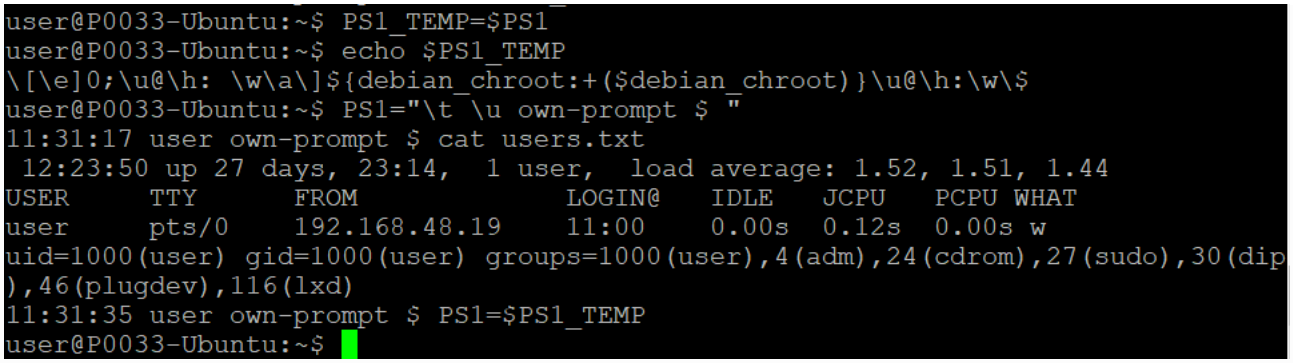
/etc/profilen muokkaus

```
user@P0033-Ubuntu:~$ sudo nano /etc/profile
user@P0033-Ubuntu:~$ env | grep linuxinfo
linuxinfo=Fri Oct 15 10:46:11 EEST 2021 | hostname is P0033-Ubuntu and logged in
 user is user
user@P0033-Ubuntu:~$ su - jonathan
Password:
jonathan@P0033-Ubuntu:~$ env | grep linuxinfo
linuxinfo=Fri Oct 15 10:47:36 EEST 2021 | hostname is P0033-Ubuntu and logged in
 user is jonathan
```

Ja varmistetaan että näkyy muillakin käyttäjillä

6. **Take backup from the current command line prompt and edit the current prompt to be like in the example below.**

- **Time (24h) *current_logged_in_user* own-prompt $**
- **Example: 09:28:11 ubuntu own-prompt $**
- **Return the original prompt back after verifying the operation of your temporary prompt.**



Ensin backup, varmistetaan että se on sisällä, sitten uusi prompti, katsotaan että sillä voi tehdä käskyjä ja sitten heivataan alkuperäinen PS1 takaisin.

Cowsay seuraavalla sivulla

7. **Install cowsay program to your Ubuntu if it is not yet installed. Chain the following three commands:**

- **Cow tells the name of the computer AND**
- **if the creation of directory called dataset cannot be done into the root directory /, sheep will report it.**