

UE02 Binder | S1510237001

1.) meaning of third and fifth fields of /etc/shadow

- 3rd Field:
 - Last password change (lastchanged) since 01.01.1979 in days
- 5 Field:
 - Maximum Number of days the password is valid after the user is forced to change his/her password

Commands to change

- passwd (change own password)
- passwd username (change password of username)
- verify integrity of password file:
 - pwck -r /etc/passwd
 - pwck -r /etc/shadow

Change MaxDate

- chage [options] username
- chage -M 100 mgs

2.) copy of /etc

- cp -a /etc etcbakup

3.) mount

- first create folder: mkdir /mnt/myhdd
- mount -o noauto, noexec, nosuid /dev/sdd1 /mnt/myhdd

4.)

```
-ls -l --time-style="+%y-%m-%d  
%m-%d %k:%M"
```

5.) What does *time find / -type d >/dev/null 2>&1* do?

Calculates the time, which is needed to find all sub directories, starting from the root directory (without data).

6.)

- sudo pacman -S quota-tools
- sudo nano /etc/fstab
- change ext4 defaults,relatime,data=ordered 0 1 to ext4 defaults,relatime,data=ordered,usrquota 0 1
- sudo quotacheck -vum / (create the Quotafiles)
- sudo quotaon -av (Activate the quotas)
- sudo edquota bob (change the hard/soft quota to the value you like (its in kb))

7.)

- (a) find /usr -maxdepth 3 -type d > ~/output.txt
- (b) sudo find -type f -size 0b
- (c) find -type f -perm /4000 -o -perm /2000 2>/dev/null

8.) Create new file in home directory, and change its permissions in octal notation to reflect the following permission triplets.

- chmod octal
- (a)
 - chmod 664
 - owner is allowed to write or read, users in owner grp are allowed to read, all others can just read (-rw-r--r--)
- (b)

- chmod 755
- Owner is allowed to read, write and execute; groupe of owner is allowed to read and execute; other users are allowed to read and execute (-rwxr-xr-x)
- (c)
 - chmod 540
 - owner is allowed to read and execute; groupe is allowed to read (-r-xr---)
- (d)
 - chmod 4550
 - owner allowed to read and execute; SUID is set; group is allowed to read and execute (-r-sr-x--)

9.) Explain the meaning of following Linux signals:

- SIGHUP: disconnect the terminal connection
- SIGCONT: With -SIGSTOP stopped Process should continue
- SIGALRM: timer clock expired – alarm().
- SIGSEGV: Speicherzugriff auf unerlaubtes Speichersegment.
- SIGUSR2: User-defined signal 2

10.)

- cat /etc/passwd | grep \$(whoami) | cut -d ':' -f3

11.)

- sudo find / -executable -type f -exec md5sum "{}" + > ~/md5sum.txt
- all calculated md5sums are in ~/md5sum.txt

12.)

```
[mgs@mgspc ~]$ dd if=/dev/urandom count=1 bs=100 | md5sum
```

```
1+0 Datensätze ein
```

```
1+0 Datensätze aus
```

```
100 bytes copied, 0,000101855 s, 982 kB/s8fb33a0cdbe719919bce066ac8dd181c -
```

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- `cat urls.txt | xargs -d '\n' wget ~/Downloads/`

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1. `\d*`
2. `\d+`
3.
4. `[c m f]..`
5. `^[^b]..`
6. `[A-C]..`
7. `[w]{1}[a]{1}z{3,5}[u]{1}[p]{1}`
8. `a{2,4}[bc]+`
9. `\d+ files? found\?`
10. `\d.\s+abc`
11. `^Mission: successful$`
12. `^(file.+).pdf$`
13. `(\w+ (\d+))`
14. `(\d+)x(\d+)`
15. `I love (cats|dogs)`
16. `.*`

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1. `cat sample_access_log.txt | cut -d " " -f1 | sort | uniq | wc -l (Output 1546)`
2. `cat sample_access_log.txt | grep '8/Mar/2004:[2][0-3]' | grep -v GET | wc -l (Output 1)`
3. `cat sample_access_log.txt | grep -v 'GET' | cut -d ' ' -f10 | sort -nr | uniq | head -n 1 (Output 24577)`
4. `cat sample_access_log.txt | grep "robots.txt HTTP/1.0" | grep -v .com | wc -l (Output 1)`
5. `cat sample_access_log.txt | cut -d " " -f9 | grep 304 | wc -l (152)`
6. `cat sample_access_log.txt | rev | cut "-d " -f2 | rev | grep -v 200 | grep -v 404 | sort | uniq (Output 302, 304, 401, 408)`