

Nama : Deanissa Sherly Sabilla

Kelas : 1B SIB

Absen : 06

PRATIKUM 8

-SISTEM FILE-

TUGAS PENDAHULUAN

1. Apa saja atribut file ? Berikan contoh file dengan tipe file yang disebutkan pada dasar teori.
2. Apa yang dimaksud ijin akses ? Bagaimana contoh penggunaan perintah chmod untuk mengubah ijin akses.
3. Berilah contoh penggunaan perintah umask untuk mengubah ijin akses

JAWAB

1. Atribut File :
 - Tipe File :
Contoh file :
 - Dokumen: .txt (teks biasa), .docx (Microsoft Word), .pdf (PDF) [laporan.docx]
 - Gambar: .jpg (JPEG), .png (Portable Network Graphics), .gif (Graphics Interchange Format) [foto.jpg]
 - Audio: .mp3 (MPEG Audio Layer III), .wav (Waveform Audio File Format), .flac (Free Lossless Audio Codec) [lagu.mp3]
 - Video: .mp4 (MPEG-4 Part 14), .avi (Audio Video Interleave), .mkv (Matroska Video) [film.mp4]
 - Arsip: .zip (ZIP Archive), .rar (RAR Archive), .tar (Tape Archive) [backup.zip]
 - Ijin Akses :
Contoh File :
 - Read (r): Mengizinkan file dibaca.
 - Write (w): Mengizinkan file ditulis atau dimodifikasi.
 - Execute (x): Mengizinkan file dieksekusi sebagai program.
-rw-r—r dan -rwxr-xr-x
 - Usermask :
Contoh File :
 - Jika umask diset ke 022, file baru akan memiliki izin 755 (rwxr-xr-x) dan direktori baru akan memiliki izin 755.
 - Jika umask diset ke 077, file baru akan memiliki izin 700 (rwx-----) dan direktori baru akan memiliki izin 700.
2. Setiap obyek pada Linux harus mempunyai pemilik, yang nama pemakai Linux (account) yang terdaftar pada /etc/passwd.

Contoh : `chmod u=rwx,g=rx,o=rx example.sh`

3. Contoh perintah : **umask 022**

Dengan umask ini, file baru akan memiliki izin 644 (rw-r--r--) dan direktori baru akan memiliki izin 755 (rwxr-xr-x).

PERCOBAAN

Percobaan 1 : Ijin Akses

1. Melihat identitas diri melalui `etc/passwd` atau `etc/group`, informasi apa ditampilkan ?

```
$ id
$ grep <user> /etc/passwd
$ grep [Nomor group id] /etc/group
```

```
deanissa@DESKTOP-9U498E1:~$ id
uid=1000(deanissa) gid=1000(deanissa) groups=1000(deanissa),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),116(netdev)
deanissa@DESKTOP-9U498E1:~$ grep dea /etc/passwd
deanissa:x:1000:1000:,,Lab Pemograman 2,2301,5947280:/home/deanissa:/bin/bash
deanissa@DESKTOP-9U498E1:~$ grep 25 /etc/group
floppy:x:25:deanissa
```

2. Memeriksa direktori home

```
$ ls -ld /home/<user>
```

```
deanissa@DESKTOP-9U498E1:~$ ls -ld /home/dea
ls: cannot access '/home/dea': No such file or directory
```

3. Mengubah Ijin akses (`chmod`). Perhatikan ijin akses setiap perubahan !

```
$ touch f1 f2 f3
$ ls -l
$ chmod u+x f1
$ ls -l f1
$ chmod g=w f1
$ ls -l f1
$ chmod o-r f1
$ ls -l f1
$ chmod a=x f2
$ ls -l f2
$ chmod u+x,g-r,o=w f3
$ ls -l f3
$ chmod 751 f1
$ chmod 624 f2
$ chmod 430 f3
$ ls -l f1 f2 f3
```

```
deanissa@DESKTOP-9U498E1:~$ touch f1 f2 f3
deanissa@DESKTOP-9U498E1:~$ ls -l
total 20
drwxr-xr-x 1 deanissa deanissa 512 Mar  7 12:48 backup
-rw-r--r-- 1 deanissa deanissa 41 Mar 11 11:04 baru
lrwxrwxrwx 1 deanissa deanissa  1 Mar 17 11:09 bye.txt -> z
-rw-r--r-- 1 deanissa deanissa 40 Mar 27 20:13 dea.txt
-rw-r--r-- 1 deanissa deanissa 56 Mar 27 20:15 errordea.txt
-rw-r--r-- 1 deanissa deanissa 1854 Apr 18 09:36 evaluasi
-rwxr-x--x 1 deanissa deanissa  6 May 18 20:11 f1
-rw--w-r-- 1 deanissa deanissa 806 May 18 20:11 f2
-r---wx--- 1 deanissa deanissa 806 May 18 20:11 f3
-rw-r----- 1 deanissa deanissa  0 May 16 12:06 file_baru
-rw-r--r-- 3 deanissa deanissa 17 Mar 17 11:06 halo.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 21 09:56 hello.txt
-rw-r--r-- 1 deanissa deanissa 45 Mar 11 12:14 kelas.txt
-rw-r--r-- 1 deanissa deanissa 31 Mar 11 12:12 kelas1.txt
-rw-r--r-- 1 deanissa deanissa 14 Mar 11 12:13 kelas2.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latihan2
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latuhan2
-rw-r--r-- 1 deanissa deanissa 12 Mar 11 12:36 list
-rw-r--r-- 1 deanissa deanissa 12 Mar 11 12:38 list_direktori.tct
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:33 list_direktori.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 17 11:09 mydir
-rw-r--r-- 1 deanissa deanissa 344 Mar 17 11:15 myerror.txt
-rw-r--r-- 1 deanissa deanissa  0 May 16 12:04 myfile
-rw-r--r-- 1 deanissa deanissa 52 Mar 11 10:55 mylife.txt
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 mylinux
-rw-r--r-- 1 deanissa deanissa 20 Mar 11 11:17 out
-rw-r--r-- 1 deanissa deanissa 56 Mar 11 11:00 out.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 11:18 output
-rw-r--r-- 1 deanissa deanissa 1507 Mar 21 09:46 pass
drwxr-xr-x 1 deanissa deanissa 512 Mar 21 09:44 play
drwxr-xr-x 1 deanissa deanissa 512 Mar 28 08:51 quiz
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 12:44 rmdirerror.txt
-rw-r--r-- 1 deanissa deanissa 13 Mar 11 11:09 surat
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 thelinux
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:41 urut.txt
drwx----- 1 deanissa deanissa 512 May 16 12:07 xdir
-rw----- 1 deanissa deanissa  0 May 16 12:07 xfiles
-rw-r--r-- 3 deanissa deanissa 17 Mar 17 11:06 z
```

```

deanissa@DESKTOP-9U498E1:~$ chmod u+x f1
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:11 f1
deanissa@DESKTOP-9U498E1:~$ chmod g=w f1
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwx-w--x 1 deanissa deanissa 6 May 18 20:11 f1
deanissa@DESKTOP-9U498E1:~$ chmod o-r f1
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwx-w--x 1 deanissa deanissa 6 May 18 20:11 f1
deanissa@DESKTOP-9U498E1:~$ chmod a=x f2
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwx-w--x 1 deanissa deanissa 6 May 18 20:11 f1
deanissa@DESKTOP-9U498E1:~$ chmod u+x, g-r, o=w f3
chmod: invalid mode: 'u+x,'
Try 'chmod --help' for more information.
deanissa@DESKTOP-9U498E1:~$ chmod u+x,g-r,o=w f3
deanissa@DESKTOP-9U498E1:~$ ls -l f3
-r-x-wx-w- 1 deanissa deanissa 806 May 18 20:11 f3
deanissa@DESKTOP-9U498E1:~$ chmod 751 f1
deanissa@DESKTOP-9U498E1:~$ chmod 624 f2
deanissa@DESKTOP-9U498E1:~$ chmod 430 f3
deanissa@DESKTOP-9U498E1:~$ ls -l f1 f2 f3
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:11 f1
-rw--w-r-- 1 deanissa deanissa 806 May 18 20:11 f2
-r---wx--- 1 deanissa deanissa 806 May 18 20:11 f3
deanissa@DESKTOP-9U498E1:~$

```

4. Mengganti kepemilikan digunakan perintah `chown`. Masuk ke root untuk mengganti kepemilikan tersebut.

```

$ su root
$ echo Hallo > f1
$ ls -l f1
$ chown <user-baru> f1 contoh: chown student1 f1
$ ls -l f1

```

```

deanissa@DESKTOP-9U498E1:~$ su root
Password:
su: Authentication failure
deanissa@DESKTOP-9U498E1:~$ echo Hallo > f1
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:21 f1
deanissa@DESKTOP-9U498E1:~$ chown student1 f1
chown: invalid user: 'student1'
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:21 f1
deanissa@DESKTOP-9U498E1:~$

```

5. Ubahlah ijin akses home directory <user> (student) pada root sehingga <user-baru> (student1) pada satu group dapat mengakses home direktory <user>. Hal ini dimaksudkan agar file f1 yang sudah diubah kepemilikannya dapat diakses <user-baru>. Perubahan ijin akses home directory <user> hanya dapat dilakukan pada root.

```
$ chmod g+rxw /home/<user> contoh: chmod g+rxw /home/student
$ ls -l /home
$ exit
```

```
deanissa@DESKTOP-9U498E1:~$ chmod g+rxw /home/dea (seperti diatas)
chmod: cannot access '/home/dea': No such file or directory
deanissa@DESKTOP-9U498E1:~$ ls -l /home
total 0
drwxrwx--- 1 deanissa deanissa 512 May 16 12:07 deanissa
deanissa@DESKTOP-9U498E1:~$ exit
```

6. Sekarang cobalah untuk substitute user ke <user-baru> (student1). Cobalah

untuk mengakses file f1

```
$ su <user-baru>
$ ls -l f1
$ cat f1
$ exit
```

```
deanissa@DESKTOP-9U498E1:~$ su student1
su: user student1 does not exist or the user entry does not contain all the required fields
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:21 f1
deanissa@DESKTOP-9U498E1:~$ cat f1
Hallo
deanissa@DESKTOP-9U498E1:~$ exit
```

7. Mengubah group dengan perintah chgrp

```
$ $ grep root /etc/group
$ grep other /etc/group
$ su
$ chgrp root f1
$ ls -l f1
$ chgrp <group-baru> f3
$ ls -l f3
$ exit
```

```

deanissa@DESKTOP-9U498E1:~$ grep root /etc/group
root:x:0:
deanissa@DESKTOP-9U498E1:~$ grep other /etc/group
deanissa@DESKTOP-9U498E1:~$ su
Password:
su: Authentication failure
deanissa@DESKTOP-9U498E1:~$ chgrp root f1
chgrp: changing group of 'f1': Operation not permitted
deanissa@DESKTOP-9U498E1:~$ ls -l f1
-rwxr-x--x 1 deanissa deanissa 6 May 18 20:21 f1
deanissa@DESKTOP-9U498E1:~$ chgrp student1 f3
chgrp: invalid group: 'student1'
deanissa@DESKTOP-9U498E1:~$ ls -l f3
-r---wx--- 1 deanissa deanissa 806 May 18 20:11 f3
deanissa@DESKTOP-9U498E1:~$ exit

```

Percobaan 2 : User Mask

1. Menentukan ijin akses awal pada saat file atau direktori dibuat

```

$ touch myfile
$ ls -l myfile

```

```

deanissa@DESKTOP-9U498E1:~$ touch myfile
deanissa@DESKTOP-9U498E1:~$ ls -l myfile
-rw-r--r-- 1 deanissa deanissa 0 May 18 20:41 myfile

```

2. Melihat nilai umask

```

$ umask

```

```

deanissa@DESKTOP-9U498E1:~$ umask
0022

```

3. Modifikasi nilai umask

```

$ umask 027
$ umask
$ touch file_baru
$ mkdir mydir
$ ls -l
$ umask 077
$ touch xfiles
$ mkdir xdir
$ ls -l

```

```

deanissa@DESKTOP-9U498E1:~$ umask 027
deanissa@DESKTOP-9U498E1:~$ umask
0027
deanissa@DESKTOP-9U498E1:~$ touch file_baru
deanissa@DESKTOP-9U498E1:~$ mkdir mydir
mkdir: cannot create directory 'mydir': File exists

```

```
deanissa@DESKTOP-9U498E1:~$ ls -l
total 20
drwxr-xr-x 1 deanissa deanissa 512 Mar  7 12:48 backup
-rw-r--r-- 1 deanissa deanissa  41 Mar 11 11:04 baru
lrwxrwxrwx 1 deanissa deanissa  1 Mar 17 11:09 bye.txt -> z
-rw-r--r-- 1 deanissa deanissa  40 Mar 27 20:13 dea.txt
-rw-r--r-- 1 deanissa deanissa  56 Mar 27 20:15 errordea.txt
-rw-r--r-- 1 deanissa deanissa 1854 Apr 18 09:36 evaluasi
-rwxr-x--x 1 deanissa deanissa  6 May 18 20:21 f1
-rw--w-r-- 1 deanissa deanissa 806 May 18 20:11 f2
-r---wx--- 1 deanissa deanissa 806 May 18 20:11 f3
-rw-r----- 1 deanissa deanissa  0 May 18 20:41 file_baru
-rw-r--r-- 3 deanissa deanissa  17 Mar 17 11:06 halo.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 21 09:56 hello.txt
-rw-r--r-- 1 deanissa deanissa  45 Mar 11 12:14 kelas.txt
-rw-r--r-- 1 deanissa deanissa  31 Mar 11 12:12 kelas1.txt
-rw-r--r-- 1 deanissa deanissa  14 Mar 11 12:13 kelas2.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latihan2
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latuhan2
-rw-r--r-- 1 deanissa deanissa  12 Mar 11 12:36 list
-rw-r--r-- 1 deanissa deanissa  12 Mar 11 12:38 list_direktori.tct
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:33 list_direktori.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 17 11:09 mydir
-rw-r--r-- 1 deanissa deanissa 344 Mar 17 11:15 myerror.txt
-rw-r--r-- 1 deanissa deanissa  0 May 18 20:41 myfile
-rw-r--r-- 1 deanissa deanissa  52 Mar 11 10:55 mylife.txt
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 mylinux
-rw-r--r-- 1 deanissa deanissa  20 Mar 11 11:17 out
-rw-r--r-- 1 deanissa deanissa  56 Mar 11 11:00 out.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 11:18 output
-rw-r--r-- 1 deanissa deanissa 1507 Mar 21 09:46 pass
drwxr-xr-x 1 deanissa deanissa 512 Mar 21 09:44 play
drwxr-xr-x 1 deanissa deanissa 512 Mar 28 08:51 quiz
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 12:44 rmdirerror.txt
-rw-r--r-- 1 deanissa deanissa  13 Mar 11 11:09 surat
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 thelinux
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:41 urut.txt
drwx----- 1 deanissa deanissa 512 May 16 12:07 xdir
-rw----- 1 deanissa deanissa  0 May 16 12:07 xfiles
-rw-r--r-- 3 deanissa deanissa  17 Mar 17 11:06 z
```



```

deanissa@DESKTOP-9U498E1:~$ umask 077
deanissa@DESKTOP-9U498E1:~$ touch xfiles
deanissa@DESKTOP-9U498E1:~$ mkdir xdir
mkdir: cannot create directory 'xdir': File exists
deanissa@DESKTOP-9U498E1:~$ ls -l
total 20
drwxr-xr-x 1 deanissa deanissa 512 Mar  7 12:48 backup
-rw-r--r-- 1 deanissa deanissa  41 Mar 11 11:04 baru
lrwxrwxrwx 1 deanissa deanissa  1 Mar 17 11:09 bye.txt -> z
-rw-r--r-- 1 deanissa deanissa  40 Mar 27 20:13 dea.txt
-rw-r--r-- 1 deanissa deanissa  56 Mar 27 20:15 errordea.txt
-rw-r--r-- 1 deanissa deanissa 1854 Apr 18 09:36 evaluasi
-rwxr-x--x 1 deanissa deanissa  6 May 18 20:21 f1
-rw--w-r-- 1 deanissa deanissa  806 May 18 20:11 f2
-r---wx--- 1 deanissa deanissa  806 May 18 20:11 f3
-rw-r----- 1 deanissa deanissa  0 May 18 20:41 file_baru
-rw-r--r-- 3 deanissa deanissa  17 Mar 17 11:06 halo.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 21 09:56 hello.txt
-rw-r--r-- 1 deanissa deanissa  45 Mar 11 12:14 kelas.txt
-rw-r--r-- 1 deanissa deanissa  31 Mar 11 12:12 kelas1.txt
-rw-r--r-- 1 deanissa deanissa  14 Mar 11 12:13 kelas2.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latihan2
drwxr-xr-x 1 deanissa deanissa 512 Mar 11 12:44 latuhan2
-rw-r--r-- 1 deanissa deanissa  12 Mar 11 12:36 list
-rw-r--r-- 1 deanissa deanissa  12 Mar 11 12:38 list_direktori.tct
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:33 list_direktori.txt
drwxr-xr-x 1 deanissa deanissa 512 Mar 17 11:09 mydir
-rw-r--r-- 1 deanissa deanissa 344 Mar 17 11:15 myerror.txt
-rw-r--r-- 1 deanissa deanissa  0 May 18 20:41 myfile
-rw-r--r-- 1 deanissa deanissa  52 Mar 11 10:55 mylife.txt
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 mylinux
-rw-r--r-- 1 deanissa deanissa  20 Mar 11 11:17 out
-rw-r--r-- 1 deanissa deanissa  56 Mar 11 11:00 out.txt
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 11:18 output
-rw-r--r-- 1 deanissa deanissa 1507 Mar 21 09:46 pass
drwxr-xr-x 1 deanissa deanissa 512 Mar 21 09:44 play
drwxr-xr-x 1 deanissa deanissa 512 Mar 28 08:51 quiz
-rw-r--r-- 1 deanissa deanissa  0 Mar 11 12:44 rmdirerror.txt
-rw-r--r-- 1 deanissa deanissa  13 Mar 11 11:09 surat
drwxr-xr-x 1 deanissa deanissa 512 Apr 18 10:21 thelinux
-rw-r--r-- 1 deanissa deanissa 126 Mar 11 12:41 urut.txt
drwx----- 1 deanissa deanissa 512 May 16 12:07 xdir
-rw----- 1 deanissa deanissa  0 May 18 20:45 xfiles

```