

Lab2. Linux Commands

\$ who

this command is used for seeing who is on the system with you

cmd1 | cmd2 (Pipes)

using pipes, the output of the command1 can be used as input for command2

\$ who | sort : sorted list of the names who is on the system

\$ who | wc -l : find out how many users are logged on

\$ man

this command is used for getting help about the specified command usage.

\$ man cat : displays the cat command usage information

B4. File System Security

In unix each file and directory has associated access rights which may be found by typing **ls -l** or **ls lg**.

```
-rwxrw-r-- 1 ee51ab beng95 2450 feb10 11:50 file1
```



Access rights

File size

Creation date

File name

Owner of the file

Group of the file

Access rights:

directory	Owner	Group	Others
-	rwX	rw-	r--
d	rw-	rw-	r--

first column indicates that it is directory or file. If it is directory, **d** is present otherwise it is empty,

next 3 column groups indicate the file permissions of the owner of the file or directory, group of people to whom the file or directory belongs and other users respectively.

on file:

r : read and copy the file

w : change the file

x : execute a file

on directory:

r : allows users to list files in the directory

w : allows users to delete files from the directory or move files into it

x : allows to access files in the directory

\$ chmod (change mode)

this command is used for changing access rights of the file or directory

\$ chmod go -rwx biglist : remove read, write and execute permissions on the file biglist for the group and others.

\$ chmod a+rw bigfile : add read and write permission on the file bigfile for all users

\$chmod 500 list1 : gives read and execute permission to the owner and removes rest of the permissions

- r-x --- ---

- 101 000 000 (=5 0 0)

C. Processes and Jobs

A process is an executing program identified by a unique PID (process identifier). It can be in background, in foreground or be suspended.

\$ ps

this command is used for seeing information about the processes.

\$ps -aux : used for seeing the processes in details

&

this symbol is used for working the process on the background.

█

Sort command is worked on the background .

[1] à indicates the PID number, 770 à indicates the process id0

```
$ sort list > sortedlist &
```

```
[1] 770
```

\$ bg

this command is used for background a current foreground process.

\$ fg

this command is used for foreground a background or suspended process

This is used for background a current working process

```
$ sleep 100
```

```
^Z
```

```
# bg
```

\$ jobs

this command is used for listing suspended and background processes

```
$ jobs
```

Lists the background and suspended processes then restarts the suspended process sleep 100.

[1] Suspended sleep 100

[2] running netscape

[3] running nedit

\$ fg 1

^Z

this is used for suspending a job

^C

this is used for killing a job

\$ kill

this command is used for killing suspended or background process



sleep 100 jobs is killed. If the process refuses to be killed, -9 option is used (\$ kill -9 20077)

\$ ps

PID	TTY	STAT	TIME	COMMAND
-----	-----	------	------	---------

20077	pts/5	S	0:05	sleep 100
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21357 pts/5 T 0:00 netscape

\$ kill 20077