SM Lab Assignment - 3

mkdir - This is used for making directories.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ mkdir lab_3

Mkdir can also be used to create multiple directories in single line

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ mkdir lab_3.1 lab_3.2

cd - change directory

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ cd lab_3

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3

cd .. - this is used to go back to the previous directory.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cd ..

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$

cd . - we stay at the same directory

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ cd .

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$

cd ../.. - this is used to go back previous two levels

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cd ../..

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects$

man - reference manual

This gives us information about a particular command.

man <command>

q has to be pressed to get out of the manual page.

cat - concatenate files and prints output

1. Creating new file:

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat>file1

This is a test file.

ctrl + d - saves file

2. Viewing contents of existing file:

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat file1
This is a test file.
Or
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat<file1
This is a test file.
   3. Appending existing file:
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$
cat>>file1
Test1
ctrl + d - saves file
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat file1
This is a test file.
Test1

touch - creates multiple empty files in a single line
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ touch
test1 test2
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls
file1 test1 test2

ls - list directory contents
ls -l (long)
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -l
total 4
-rw-rw-r-- 1 akshala akshala 27 Sep 2 13:30 file1
-rw-rw-r-- 1 akshala akshala 0 Sep 2 13:34 test1
-rw-rw-r-- 1 akshala akshala 0 Sep 2 13:34 test2
ls -a (all: shows hidden files as well) The files displayed in blue are hidden.
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -a
. .. file1 test1 test2
ls -r (arranged in reverse order)
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -rt
file1 test2 test1

ls -R (recursively)

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -R

.:

file1 test1 test2

ls -h (human readable)

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -h

file1 test1 test2

ls -i (show inode number)

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -i

18350092 file1   18350093 test1   18350095 test2

ls -t (arranged according to time)

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -t

test1 test2 file1

ls -s (arranged according to size)

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ ls -s

total 4

4 file1   0 test1   0 test2

cp - copies the file from source to destination

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cp file1 test1

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test1

This is a test file.

Test1

cp -r - copying recursively. This is used to copy a directory.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ cp -r lab_3 lab_3.2

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ cd lab_3.2

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3.2$ ls

lab_3

cp -v - provides verbose output

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cp -v file1 test1

'file1' -> 'test1'

cp -f - copies forcefully

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cp -f test1 test2

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test2
This is a test file.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test1
This is a test file.

mv - moves file or directory from one location to another. This is also used for renaming a file.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ mv test1 test2

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test2
This is a test file.
Test1

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test1
cat: test1: No such file or directory

mv -v - gives verbose output

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ mv -v file1 file2

'file1' -> 'file2'

rm - deletes file or directory

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ rm file1

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat file1
cat: file1: No such file or directory

rm -i - this is interactive i.e. it asks us before deleting the file

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ rm -i test2

rm: remove regular file 'test2'? y

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test2
cat: test2: No such file or directory

rm -r - this is deleting recursively. It is used to delete a directory.

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ rm -r lab_3.1/
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ cd lab_3.1
bash: cd: lab_3.1: No such file or directory

rm -f - removes forcefully

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ rm -f test2
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cat test2
cat: test2: No such file or directory

pwd - shows the present working directory

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ pwd
/home/akshala/MyProjects/IIITD/lab_3

date - prints system date and time

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ date
Sun Sep 2 14:03:11 IST 2018

cal - prints calendar of the particular month

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ cal
*   September 2018*
Su Mo Tu We Th Fr Sa
*   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

cal <year> - prints calendar of that year

cal <month> <year> - prints calendar of that month and year

who - shows who all are currently logged in to the system

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ who
akshala tty7   2018-09-01 10:07 (:0)

whoami - prints current username

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ whoami
akshala

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finger - user information lookup window

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ finger

Login   Name   Tty   Idle Login Time Office   Office Phone

akshala   Akshala Bhatnagar   tty7   1d Sep 1 10:07 (:0)

uptime - tells how long the server has been running and how many users are logged in

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ uptime

14:13:43 up 1 day, 4:06, 1 user, load average: 0.99, 0.75, 0.68

which <command> or whereis <command> - show the location of the coding file of command

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ which ls

/bin/ls

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ whereis ls

ls: /bin/ls /usr/share/man/man1/ls.1.gz

tty - shows the terminal position

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ tty

/dev/pts/3

df - shows the disk space usage in the system

akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ df

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
udev	4011816	0	4011816	0%	/dev
tmpfs	808304	50488	757816	7%	/run
/dev/sda5	464176920	6523076	434051976	2%	/
tmpfs	4041508	88320	3953188	3%	/dev/shm
tmpfs	5120	4	5116	1%	/run/lock
tmpfs	4041508	0	4041508	0%	/sys/fs/cgroup
/dev/sda2	98304	29096	69208	30%	/boot/efi
tmpfs	808304	76	808228	1%	/run/user/1000
/dev/loop0	90112	90112	0	100%	/snap/core/5328
/dev/loop1	128	128	0	100%	/snap/hello/20
/dev/loop2	128	128	0	100%	/snap/hello/29

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/dev/sda4   496118780 85919980 410198800 18%
/media/akshala/BCC85FA2C85F59AA

du - shows the estimate file space usage
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ tty
/dev/pts/3

clear - all the commands on the terminal are wiped out

file - determines the type of the file
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD$ file lab_3
lab_3: directory
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects/IIITD/lab_3$ file file1
file1: ASCII text

Meta character or Wild card character * - It matches 0 or more characters in a given file
<command> <character>* - performs commands on file starting with given character
akshala@akshala-HP-Laptop-15-bs1xx:~$ ls a*
A
<command> <character1>*<character2> - performs command on file starting with character1 and ending with character2
akshala@akshala-HP-Laptop-15-bs1xx:~$ ls M*s
codeForces IIITD lesson1.html millionSort.py Practice Lab proconJunior
<command> *<character> - performs command on files ending with given character
akshala@akshala-HP-Laptop-15-bs1xx:~/MyProjects$ ls *s
anton_and_danik.py next_round.py theatreSquare.py way_too_long.cpp
Div 3   stringTask.py translation.py way_too_long.py