

## COMMAND UTILITIES

1. Which command is used to know the current working directory?

Ans. `pwd`

2. How would you find out its contents?

Ans. using `ls` command

3. Identify the commands with inputs to do the following

a. create a directory `d1`

Ans. `mkdir d1`

b. create a subdirectory `d2` in `d1`

Ans. `cd d1`

`Mkdir d2`

c. change to directory `d2`

Ans. `cd d2`

d. create an empty file "`f1.txt`"

Ans. `touch f1.txt`

e. display the contents of "`f1.txt`"

Ans. `cat f1.txt`

f. view the contents of `d1` from current directory `d2`

```
pooja@LAPTOP-466VHPQE: ~/d1
pooja@LAPTOP-466VHPQE:~$ mkdir d1
pooja@LAPTOP-466VHPQE:~$ cd d1
pooja@LAPTOP-466VHPQE:~/d1$ mkdir d2
pooja@LAPTOP-466VHPQE:~/d1$ cd d2
pooja@LAPTOP-466VHPQE:~/d1/d2$ pwd
/home/pooja/d1/d2
pooja@LAPTOP-466VHPQE:~/d1/d2$ touch f1.txt
pooja@LAPTOP-466VHPQE:~/d1/d2$ ls -l f1.txt
-rw-r--r-- 1 pooja pooja 0 Nov 3 22:18 f1.txt
pooja@LAPTOP-466VHPQE:~/d1/d2$ cat f1.txt
pooja@LAPTOP-466VHPQE:~/d1/d2$ cd ..
pooja@LAPTOP-466VHPQE:~/d1$ ls -l
total 0
drwxr-xr-x 1 pooja pooja 4096 Nov 3 22:18 d2
pooja@LAPTOP-466VHPQE:~/d1$ ls
d2
pooja@LAPTOP-466VHPQE:~/d1$
```

4. Use the ls command with its options. How will you identify directories from the listing?

Ans. ls , ls -r, ls -l, ls -ln, ls -a, ls -R, ls -F, ls -I, ls -n

ls -d \*/ this command will list only directories

```
pooja@LAPTOP-466VHPQE: ~
pooja@LAPTOP-466VHPQE:~$ ls
BTCGWorkspace d1 hello.c
pooja@LAPTOP-466VHPQE:~$ ls -r
hello.c d1 BTCGWorkspace
pooja@LAPTOP-466VHPQE:~$ ls -l
total 0
drwxr-xr-x 1 pooja pooja 4096 Nov 3 22:00 BTCGWorkspace
drwxr-xr-x 1 pooja pooja 4096 Nov 3 22:17 d1
-rw-r--r-- 1 pooja pooja 59 Nov 3 21:09 hello.c
pooja@LAPTOP-466VHPQE:~$ ls -ln
total 0
drwxr-xr-x 1 1000 1000 4096 Nov 3 22:00 BTCGWorkspace
drwxr-xr-x 1 1000 1000 4096 Nov 3 22:17 d1
-rw-r--r-- 1 1000 1000 59 Nov 3 21:09 hello.c
pooja@LAPTOP-466VHPQE:~$ ls -a
. . . bash_history .bash_logout .bashrc .landscape .motd_shown .profile .sudo_as_admin_successful .viminfo BTCGWorkspace d1 hello.c
pooja@LAPTOP-466VHPQE:~$ ls -R
.:
BTCGWorkspace d1 hello.c
./BTCGWorkspace:
Assignments Classwork README.md assign-1.txt gitCmds.sh
./BTCGWorkspace/Assignments:
readme.txt
./BTCGWorkspace/Classwork:
day01 day02 day03 day04 readme.txt theoryArray.txt
./BTCGWorkspace/Classwork/day01:
bin inc script src
./BTCGWorkspace/Classwork/day01/bin:
app1
./BTCGWorkspace/Classwork/day01/inc:
common.h
./BTCGWorkspace/Classwork/day01/script:
Makefile
./BTCGWorkspace/Classwork/day01/src:
prog01.c
```

```
pooja@LAPTOP-466VHPQE: ~  
./BTCGWorkspace/Classwork/day03/script:  
Makefile  
./BTCGWorkspace/Classwork/day03/src:  
prog01.c prog02.c prog03.c prog04.c prog05.c  
./BTCGWorkspace/Classwork/day04:  
TutroialMake bin inc script src valRpt.txt  
./BTCGWorkspace/Classwork/day04/TutroialMake:  
bin inc readme.txt script src  
./BTCGWorkspace/Classwork/day04/TutroialMake/bin:  
TestName  
./BTCGWorkspace/Classwork/day04/TutroialMake/inc:  
common.h  
./BTCGWorkspace/Classwork/day04/TutroialMake/script:  
Makefile  
./BTCGWorkspace/Classwork/day04/TutroialMake/src:  
main.c nameUtility.c  
./BTCGWorkspace/Classwork/day04/bin:  
prog01 prog02 prog03  
./BTCGWorkspace/Classwork/day04/inc:  
common.h  
./BTCGWorkspace/Classwork/day04/script:  
Makefile  
./BTCGWorkspace/Classwork/day04/src:  
config.c prog01.c prog02.c prog03.c prog04.c  
./d1:  
d2  
./d1/d2:  
f1.txt  
pooja@LAPTOP-466VHPQE:~$ ls -F  
BTCGWorkspace/ d1/ hello.c  
pooja@LAPTOP-466VHPQE:~$  
pooja@LAPTOP-466VHPQE:~$ ls -n  
total 0  
drwxr-xr-x 1 1000 1000 4096 Nov 3 22:00 BTCGWorkspace  
drwxr-xr-x 1 1000 1000 4096 Nov 3 22:17 d1  
-rw-r--r-- 1 1000 1000 59 Nov 3 21:09 hello.c  
pooja@LAPTOP-466VHPQE:~$  
pooja@LAPTOP-466VHPQE:~$ ls -d */  
ls: invalid option -- '*'  
Try 'ls --help' for more information.  
pooja@LAPTOP-466VHPQE:~$ ls -d */  
BTCGWorkspace/ d1/  
pooja@LAPTOP-466VHPQE:~$
```

5. Use ls to do the following

a. List files with single character names.

Ans. `ls single_char_name*`

b. List hidden files also. [ Note : Hidden files are files having name started with a “.” ]

Ans. `ls -a`

c. Suppose there are files `tb1.1`, `tb2.1`, `tb3.1`, ....`tb10.1`. Write command to list all the files [Hint: use wild card characters]

Ans. `ls *.1`

6. Write the command to list all files in descending order of their size.

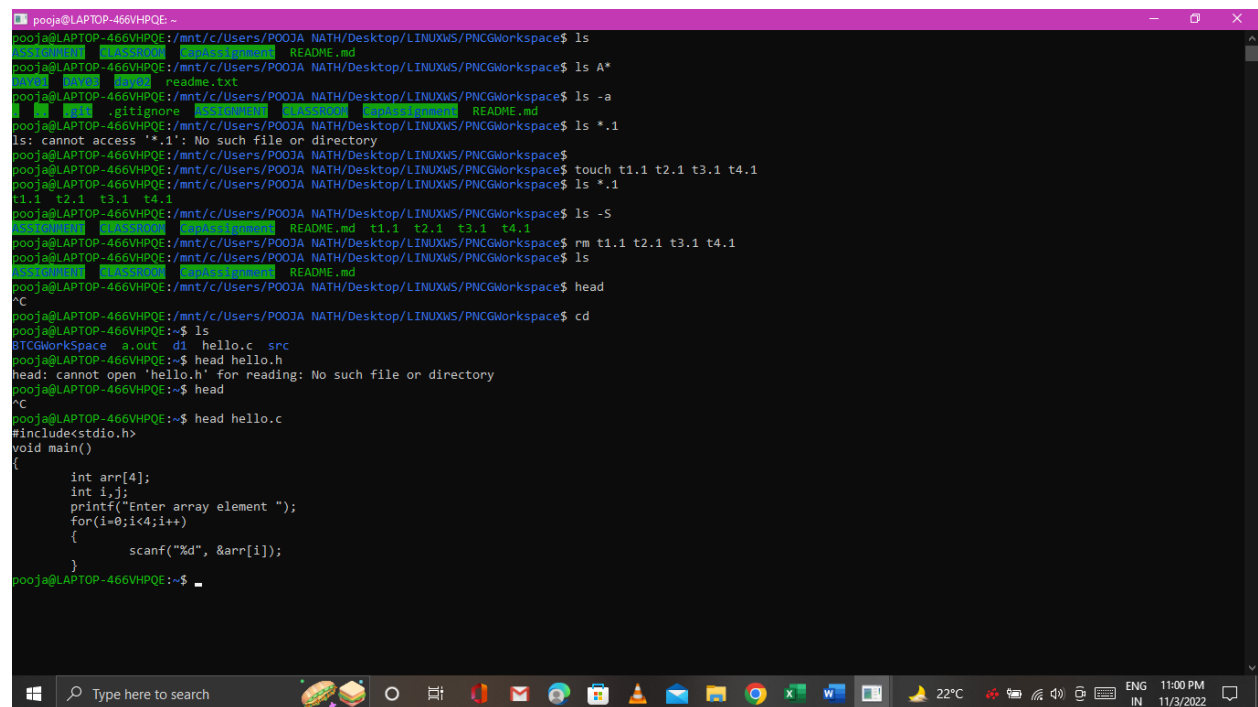
Ans. `ls -S`

7. Suppose there are files `temp1`, `temp2`, `temp3`. Write command to remove the files without listing them explicitly

Ans. `rm temp1 temp2 temp 3`

8. Which command is used to list top few lines in the file?

Ans. `head`



```
pooja@LAPTOP-466VHPQE:~$ ls
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls -a
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls *.1
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls -S
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ touch t1.1 t2.1 t3.1 t4.1
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls *.1
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls -S
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ rm t1.1 t2.1 t3.1 t4.1
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ ls
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ head
^C
pooja@LAPTOP-466VHPQE:~/NATH/Desktop/LINUXWS/PNCGWorkspace$ cd
pooja@LAPTOP-466VHPQE:~$ ls
BTCGWorkspace a.out d1 hello.c src
pooja@LAPTOP-466VHPQE:~$ head hello.h
head: cannot open 'hello.h' for reading: No such file or directory
pooja@LAPTOP-466VHPQE:~$ head
^C
pooja@LAPTOP-466VHPQE:~$ head hello.c
#include<stdio.h>
void main()
{
    int arr[4];
    int i,j;
    printf("Enter array element ");
    for(i=0;i<4;i++)
    {
        scanf("%d", &arr[i]);
    }
}
pooja@LAPTOP-466VHPQE:~$
```

9. Create a directory “testdir”

Ans.

10. Use cp command to do the following

a. Copy the file tb1.1 (created above) in the same directory.

Ans. cp ./tb1.1 ./testdir

b. Write a command to copy all the files i.e tb1.1,tb2.1,tb3.1,.....tb10.1 in a new directory –“new”

Ans. cp \*.1 new

c. Create a subdirectory in new in named“new1”.

Ans. mkdir new1

d. Write a command to copy selectively only tb2.1, tb6.1, tb7.1 and tb10.1 in the directory new1.

Ans. cp ./tb2.1 ./tb6.1 ./tb7.1./tb10.1 ./new1

e. Write a command to copy the entire directory “new” to a directory “newprogs”.  
[Note : use the –R option of “cp” command ]

Ans. cp -r [source] [destination]

```
pooja@LAPTOP-466VHPQE: ~/newprogs
pooja@LAPTOP-466VHPQE:~$ ls
BTGWorkSpace a.out d1 hello.c src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1
pooja@LAPTOP-466VHPQE:~$ mkdir testdir
pooja@LAPTOP-466VHPQE:~$ cp ./tb1.1 ./testdir
pooja@LAPTOP-466VHPQE:~$ cd testdir
pooja@LAPTOP-466VHPQE:~/testdir$ ls
tb1.1
pooja@LAPTOP-466VHPQE:~/testdir$ cd
pooja@LAPTOP-466VHPQE:~$ mkdir new
pooja@LAPTOP-466VHPQE:~$ ls
BTGWorkSpace a.out d1 hello.c new src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1 testdir
pooja@LAPTOP-466VHPQE:~$ cp *.1 ./new
pooja@LAPTOP-466VHPQE:~$ cd new
pooja@LAPTOP-466VHPQE:~/new$ ls
tb1.1 tb2.1 tb3.1 tb4.1 tb5.1
pooja@LAPTOP-466VHPQE:~/new$ cd
pooja@LAPTOP-466VHPQE:~$ mkdir new1
pooja@LAPTOP-466VHPQE:~$ cp ./tb2.1 ./tb4.1 ./new
pooja@LAPTOP-466VHPQE:~$ cp ./tb2.1 ./tb4.1 ./new1
pooja@LAPTOP-466VHPQE:~$ cd new1
pooja@LAPTOP-466VHPQE:~/new1$ ls
tb2.1 tb4.1
pooja@LAPTOP-466VHPQE:~/new1$ mkdir newprogs
pooja@LAPTOP-466VHPQE:~/new1$ cp ./new ./newprogs
cp: cannot stat './new': No such file or directory
pooja@LAPTOP-466VHPQE:~/new1$ rmdir newprogs
pooja@LAPTOP-466VHPQE:~/new1$ ls
tb2.1 tb4.1
pooja@LAPTOP-466VHPQE:~/new1$ cd
pooja@LAPTOP-466VHPQE:~$ mkdir newprogs
pooja@LAPTOP-466VHPQE:~$ ls
BTGWorkSpace a.out d1 hello.c new new1 newprogs src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1 testdir
pooja@LAPTOP-466VHPQE:~$ cp -r new newprogs
pooja@LAPTOP-466VHPQE:~$ cd newprogs
pooja@LAPTOP-466VHPQE:~/newprogs$ ls
new
pooja@LAPTOP-466VHPQE:~/newprogs$
```

11. Find out the difference between

a. ]“mv” & “cp”

Ans. mv command is used to move or rename files and directories. cp command is used to copy files and directories.

b. “rm”, “rmdir”

Ans. rm command is used to remove complete directories including subdirectories and files. Rmdir command removes only empty directory.

c. “mkdir” and “mkdir -p”

Ans. mkdir command is used to create directory. Mkdir -p create directory and if required parent directory.

12. Use a single command rmdir once to remove “testdir” and all its sub directories and files created above.

Ans. it can be deleted using rm -r testdir

```
pooja@LAPTOP-466VHPQE: ~  
pooja@LAPTOP-466VHPQE:~$ ls  
BTGWorkSpace a.out d1 hello.c src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1  
pooja@LAPTOP-466VHPQE:~$ mkdir testdir  
pooja@LAPTOP-466VHPQE:~$ cp ./tb1.1 ./testdir  
pooja@LAPTOP-466VHPQE:~$ cd testdir  
pooja@LAPTOP-466VHPQE:~/testdir$ ls  
tb1.1  
pooja@LAPTOP-466VHPQE:~/testdir$ cd  
pooja@LAPTOP-466VHPQE:~$ mkdir new  
pooja@LAPTOP-466VHPQE:~$ ls  
BTGWorkSpace a.out d1 hello.c new src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1 testdir  
pooja@LAPTOP-466VHPQE:~$ cp *.1 ./new  
pooja@LAPTOP-466VHPQE:~$ cd new  
pooja@LAPTOP-466VHPQE:~/new$ ls  
tb1.1 tb2.1 tb3.1 tb4.1 tb5.1  
pooja@LAPTOP-466VHPQE:~/new$ cd  
pooja@LAPTOP-466VHPQE:~$ mkdir new1  
pooja@LAPTOP-466VHPQE:~$ cp ./tb2.1 ./tb4.1 ./new  
pooja@LAPTOP-466VHPQE:~$ cp ./tb2.1 ./tb4.1 ./new1  
pooja@LAPTOP-466VHPQE:~$ cd new1  
pooja@LAPTOP-466VHPQE:~/new1$ ls  
tb2.1 tb4.1  
pooja@LAPTOP-466VHPQE:~/new1$ mkdir newprogs  
pooja@LAPTOP-466VHPQE:~/new1$ cp ./new ./newprogs  
cp: cannot stat './new': No such file or directory  
pooja@LAPTOP-466VHPQE:~/new1$ rmdir newprogs  
pooja@LAPTOP-466VHPQE:~/new1$ ls  
tb2.1 tb4.1  
pooja@LAPTOP-466VHPQE:~/new1$ cd  
pooja@LAPTOP-466VHPQE:~$ mkdir newprogs  
pooja@LAPTOP-466VHPQE:~$ ls  
BTGWorkSpace a.out d1 hello.c new new1 newprogs src tb1.1 tb2.1 tb3.1 tb4.1 tb5.1 testdir  
pooja@LAPTOP-466VHPQE:~$ cp -r new newprogs  
pooja@LAPTOP-466VHPQE:~$ cd newprogs  
pooja@LAPTOP-466VHPQE:~/newprogs$ ls  
new  
pooja@LAPTOP-466VHPQE:~/newprogs$ cd  
pooja@LAPTOP-466VHPQE:~$ rmdir testdir  
rmdir: failed to remove 'testdir': Directory not empty  
pooja@LAPTOP-466VHPQE:~$ rm -r testdir  
pooja@LAPTOP-466VHPQE:~$
```

13. Which command is used to get the manual information of a command?

Ans. man command

14. If you are not able to change to a directory what could be the likely cause?

Ans. may be the path provided is wrong or directory name provided is wrong

15. Explain the differences among the following commands: a. cd /

b. cd ..

Ans. move to the parent directory of current directory

c. cd

Ans. move to the root directory

d. cd ../../

Ans. suppose you are at src directory : /root/new/src

Now to move 2 level up to root directory we will do cd ../../

```
pooja@LAPTOP-466VHPQE: ~  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU$ ls  
FASTTRACK  NATH  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU$ cd FASTTRACK  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK$ ls  
ARRAY Makefile 100100 arrayR.c emp.c emp.out empname.c ques2.c  
001 SNew.c 100100 a.out emp emp.h empmain.c ques1.c tags  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK$ cd ARRAY  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK/ARRAY$ ls  
array1.c array_ex.c array_pointer array_pointer.c array_pointer.h array_pointer_main.c makefile  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK/ARRAY$ mkdir 11  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK/ARRAY$ cd 11  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK/ARRAY/11$ cd ..  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU/FASTTRACK/ARRAY$ cd ../../  
pooja@LAPTOP-466VHPQE:~/mnt/c/Users/POOJA NATH/Desktop/UBUNTU$ cd  
pooja@LAPTOP-466VHPQE:~$
```