# LINUX COMMANDS TASK 02 (10-02-25)

1) **Create a zero byte file (Name it as sample):**

```
narendar@ubuntu:~/Desktop$ touch file1
narendar@ubuntu:~/Desktop$ ls
file1
```

2) **Create a directory:**

```
narendar@ubuntu:~/Desktop$ mkdir dirc1
narendar@ubuntu:~/Desktop$ ll
total 12
drwxr-xr-x  3 narendar narendar 4096 Feb 10 13:18 ./
drwxr-x--- 16 narendar narendar 4096 Feb 10 09:43 ../
drwxrwxr-x  2 narendar narendar 4096 Feb 10 13:18 dirc1/
-rw-rw-r--  1 narendar narendar    0 Feb 10 13:14 file1
narendar@ubuntu:~/Desktop$
```

3) **Create a directory(abc), inside abc create directory(z), inside Z create another directory(y):**

```
narendar@ubuntu:/$ mkdir abc
mkdir: cannot create directory 'abc': Permission denied
narendar@ubuntu:/$ sudo mkdir abc
narendar@ubuntu:/$ cd abc
narendar@ubuntu:/abc$ mkdir z
mkdir: cannot create directory 'z': Permission denied
narendar@ubuntu:/abc$ sudo mkdir z
narendar@ubuntu:/abc$ ls
z
narendar@ubuntu:/abc$ cd /abc/z
narendar@ubuntu:/abc/z$ mkdir y
mkdir: cannot create directory 'y': Permission denied
narendar@ubuntu:/abc/z$ sudo mkdir y
narendar@ubuntu:/abc/z$ ls
y
narendar@ubuntu:/abc/z$ cd .. / ..
bash: cd: too many arguments
narendar@ubuntu:/abc/z$ cd ../..
narendar@ubuntu:/$ cd abc
narendar@ubuntu:/abc$ ls
z
narendar@ubuntu:/abc$ cd /abc/z
narendar@ubuntu:/abc/z$ ls
y
```

4) **echo "hello world" and store that in sample file which we created at task1:**

```
narendar@ubuntu:/$ sudo -i
root@ubuntu:~# touch file1
root@ubuntu:~# echo "hello world" > file1
root@ubuntu:~# cat file1
hello world
root@ubuntu:~#
```

5) give permissions to "sample" file (owner-read and write, user-execute, other, read, write and execute permission) :

```
root@ubuntu:~# chmod 617 file1
root@ubuntu:~# ll
total 52
drwx------   6 root      root 4096 Feb 10 06:18 ./
drwxr-xr-x 24 root      root 4096 Feb 10 13:41 ../
-rw-------   1 root      root 1709 Feb 10 09:39 .bash_history
-rw-r--r--   1 root      root 3106 Apr 22  2024 .bashrc
drwx------   2 root      root 4096 Aug 27 15:39 .cache/
drwx------   3 root      root 4096 Feb  9 11:28 .config/
-rw---xrwx   1 narendar root   12 Feb 10 13:47 file1*
-rw-r--r--   1 narendar root    0 Feb  9 11:22 file2
-rw-------   1 root      root   20 Feb 10 06:18 .lesshst
-rw-r--r--   1 root      root  161 Apr 22  2024 .profile
drwx------   6 root      root 4096 Feb  4 06:21 snap/
drwx------   2 root      root 4096 Feb  4 06:21 .ssh/
-r-xr-xr-x   1 root      root 7049 Feb  4 06:20 vboxpostinstall.sh*
root@ubuntu:~#
```

6) create a bash script file in "Z" directory created in task3.(Name of script: myscript.sh)

Sample script:

#!/bin/bash

echo "my path cd abc/a/b/c"

```
[ec2-user@ip-192-168-0-26 ~]$ sudo -i
[root@ip-192-168-0-26 ~]# vi myscript.bash
[root@ip-192-168-0-26 ~]# chmod 777 myscript.bash
[root@ip-192-168-0-26 ~]# ./myscript.bash
my path cd abc/a/b/c
[root@ip-192-168-0-26 ~]# cat myscript.bash

 #!/bin/bash
 echo "my path cd abc/a/b/c"

[root@ip-192-168-0-26 ~]#
```

6) give full permissions myscript.sh:

```
[root@ip-192-168-0-26 ~]# vi myscript.bash
[root@ip-192-168-0-26 ~]# chmod 777 myscript.bash
```

### 7) create a soft link to myscript.sh:

```
[root@ip-192-168-0-26 ~]# ln -s /root/myscript.bash
ln: failed to create symbolic link './myscript.bash': File exists
[root@ip-192-168-0-26 ~]# ln -s /root/to/myscript.bash
ln: failed to create symbolic link './myscript.bash': File exists
[root@ip-192-168-0-26 ~]# 
```

### 9) find the file "sample" and capture the output in same file:

```
narendar@ubuntu:/$ sudo -i
[sudo] password for narendar:
root@ubuntu:~# ls
alphabet  file1  file2  mytask  snap  vboxpostinstall.sh
root@ubuntu:~# find -type f -name file1 | tee -a file1
./file1
root@ubuntu:~# cat file1
hello world
./file1
root@ubuntu:~# 
```

### 10)create a file"alphabet" and enter a,b,c,d,e,f,g,a,b and save the file:

```
root@ubuntu:~# vi alphabet
root@ubuntu:~# ls
alphabet  file1  file2  snap  vboxpostinstall.sh
root@ubuntu:~# cat alphabet
a
b
c
d
e
f
g
a
b

root@ubuntu:~# 
```

### 11) grep the keyword small a in file alphabet:

```
root@ubuntu:~# grep a alphabet
a
a
root@ubuntu:~# 
```

**12) grep the keyword capital A in file alphabet:**

```
root@ubuntu:~# grep -i A alphabet
a
a
root@ubuntu:~#
```

**13) create a script name "demo.sh".**

**Sample script:**

 **#!/bin/bash**

 **echo "my demo"**

**sleeep "60"**

```
naren@narendar MINGW64 ~
$ nano demo.sh

naren@narendar MINGW64 ~
$ chmod +x demo.sh

naren@narendar MINGW64 ~
$ ./demo.sh
./demo.sh: line 1: y: command not found
my demo
```

**14) open one gitbash terminal and check for demo.sh process:**

```
root@ubuntu:~# ps -ef | grep demo.sh
root        40450    39830  0 15:04 pts/1     00:00:00 grep --color=auto demo.sh
root@ubuntu:~# su narendar
narendar@ubuntu:/root$ ps -ef | grep demo.sh
narendar    40464    40454  0 15:05 pts/1     00:00:00 grep --color=auto demo.sh
narendar@ubuntu:/root$
```

**15) rerun the demo.sh terminal and kill the process from anaother gitbash terminal:**

..

**16) check the user id of pc:**

```
naren@narendar MINGW64 ~
$ whoami
naren
```

```
C:\Users\naren>whoami
narendar\naren
```

**17) check the username of pc:**

```
C:\Users\naren>echo %USERNAME%
naren
```

**18) check the operating system of pc:**

```
naren@narendar MINGW64 ~
$ cmd.exe /c ver

Microsoft Windows [Version 10.0.22631.4751]
```

**19) check the free space available of pc:**

```
naren@narendar MINGW64 ~
$ df -h
Filesystem              Size  Used Avail Use% Mounted on
C:/Program Files/Git    476G   89G  388G  19% /
D:                      5.8G  5.8G     0 100% /d
```

**20) check the cpu utilisation of pc:**

```
naren@narendar MINGW64 ~
$ wmic cpu get loadpercentage
LoadPercentage
3
```

**21) create a directory with any name and tar that directory:**

```
narendar@ubuntu:~/Desktop$ cd
narendar@ubuntu:~$ mkdir test_tar
narendar@ubuntu:~$ cd test_tar/
narendar@ubuntu:~/test_tar$ touch a b c d e f
narendar@ubuntu:~/test_tar$ ls
a   b   c   d   e   f
narendar@ubuntu:~/test_tar$ tar cvf techie.tar test_tar/_
tar: test_tar/_: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors
narendar@ubuntu:~/test_tar$ tar cvf techie.tar test_tar/
tar: test_tar: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors
narendar@ubuntu:~/test_tar$ cd ..
narendar@ubuntu:~$ tar cvf techie.tar test_tar/
test_tar/
test_tar/techie.tar
test_tar/c
test_tar/a
test_tar/b
test_tar/e
test_tar/d
test_tar/f
narendar@ubuntu:~$ sudo cp techie.tar /opt/
[sudo] password for narendar:
narendar@ubuntu:~$ cd /opt/
narendar@ubuntu:/opt$ ls
techie.tar
```

**22) now remove the directory and untar the tar file created in step 21:**

```
narendar@ubuntu:~$ sudo cp techie.tar /opt/
[sudo] password for narendar:
narendar@ubuntu:~$ cd /opt/
narendar@ubuntu:/opt$ ls
techie.tar
narendar@ubuntu:/opt$ sudo tar xvf techie.tar
test_tar/
test_tar/techie.tar
test_tar/c
test_tar/a
test_tar/b
test_tar/e
test_tar/d
test_tar/f
narendar@ubuntu:/opt$ ls
techie.tar   test_tar
narendar@ubuntu:/opt$ cd test_tar
narendar@ubuntu:/opt/test_tar$ ls
a  b  c  d  e  f  techie.tar
```

**23) Execute the below command:**

  **history >> mytask:**

```
root@ubuntu:~# history >> mytask
root@ubuntu:~# ls
alphabet  file1  file2  mytask  snap  vboxpostinstall.sh
root@ubuntu:~#
```