



 slington college  
(इस्लिङ्टन कलेज)

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**Level 5 – Network Operating Systems**

**Assessment Type**  
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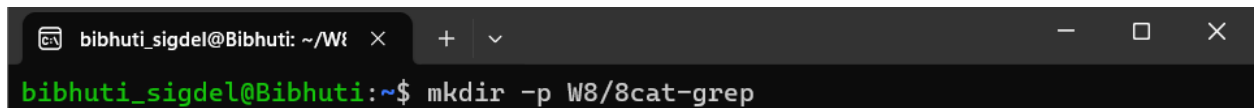
**Word Count (Where Required):**

*I confirm that I understand my coursework needs to be submitted online via MST Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.*

## Aim:

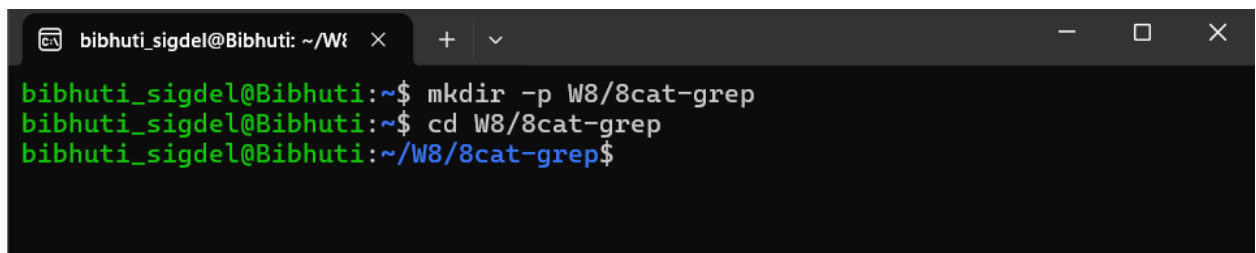
This logbook serves to document and provide context for the practical activities undertaken during Week 8's UNIX Utilities Workshop. Its objective is to highlight the hands-on experience gained through the use of various UNIX commands and utilities for tasks such as text processing, file creation, directory management, and alias configuration.

1. Create the directory structure presented in the figure below.



```
bibhuti_sigdel@Bibhuti: ~/W8/8cat-grep
bibhuti_sigdel@Bibhuti:~$ mkdir -p W8/8cat-grep
```

2. Change to the 8cat-grep directory by one step using a relative pathname.



```
bibhuti_sigdel@Bibhuti: ~/W8/8cat-grep
bibhuti_sigdel@Bibhuti:~$ mkdir -p W8/8cat-grep
bibhuti_sigdel@Bibhuti:~$ cd W8/8cat-grep
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$
```

3. Using the cat utility, create two files

### File testa

Kkkll

lllmm

oo--oo

mmmdd

dddkk

### File testb

KKKKK

LLLLL

MMMMM

DDDDD

```
bibhuti_sigdel@Bibhuti: ~/W8/8cat-grep
bibhuti_sigdel@Bibhuti:~$ mkdir -p W8/8cat-grep
bibhuti_sigdel@Bibhuti:~$ cd W8/8cat-grep
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ cat
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ cat>testa
Kkkll
lllmm
oo-oo
mmdd
dddkk
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ cat>testb
KKKKK
LLLLL
MMMMM
DDDDD
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$
```

4. Give the following commands and explain the results for yourself

- `grep ll testa`
- `grep -v ll testa`
- `grep -n ll testa`
- `grep -l ll *`
- `grep -i ll *`
- `grep -i LL *`
- `grep -c ll *`
- `grep '^K' testa testb`
- `grep -n '^' testa`

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep ll testa
Kkkll
lllmm
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -v ll testa
oo-oo
mmdd
dddkk
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -n ll testa
1:Kkkll
2:lllmm
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -l ll *
testa
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -i ll *
testa:Kkkll
testa:lllmm
testb:LLLLL
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -i LL *
testa:Kkkll
testa:lllmm
testb:LLLLL
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -c ll *
testa:2
testb:0
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep '^K' testa testb
testa:Kkkll
testb:KKKKK
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ grep -n '^' testa
1:Kkkll
2:lllmm
3:oo-oo
4:mmdd
5:dddkk
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$

```

##### 5. Define the ls alias for ls -al command

Show that your system stores it giving the alias command (without arguments).

Use it in your home directory.

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias lsal='ls -al'
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
total 16
drwxr-xr-x 2 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:18 .
drwxr-xr-x 3 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:15 ..
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 30 Dec 23 09:18 testa
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 24 Dec 23 09:19 testb
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$

```

## 6. Remove the alias.

Show that your system does not store it.

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ unalias lsal
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
-bash: lsal: command not found
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$

```

## 7. Define this alias again preserving it for the next session

Show that the system still keep this your alias.

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ nano ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ source ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias lsal='ls -al'
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
-bash: lsal: command not found
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
total 16
drwxr-xr-x 2 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:18 .
drwxr-xr-x 3 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:15 ..
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 30 Dec 23 09:18 testa
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 24 Dec 23 09:19 testb

```

## 8. Define the nwho alias for the number of system file at UNIX computers.

alias nwho='getent passwd|wc -l'

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ nano ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ source ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias lsal='ls -al'
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
total 16
drwxr-xr-x 2 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:18 .
drwxr-xr-x 3 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:15 ..
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 30 Dec 25 19:20 testa
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 24 Dec 25 19:20 testb
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias nwwho='getent passwd|wc -l'

```

9. Give the command `nwho`. Compare the figure displayed with ones got by your UNIX-mates.

```

bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ nano ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ source ~/.bashrc
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias lsal='ls -al'
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ lsal
total 16
drwxr-xr-x 2 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:18 .
drwxr-xr-x 3 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:15 ..
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 30 Dec 25 19:20 testa
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel 24 Dec 25 19:20 testb
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ alias nwwho='getent passwd|wc -l'
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ nwwho
20
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$

```

10. List your last commands executed giving the `history` command.

```
bibhuti_sigdel@Bibhuti: ~/W8/8cat-grep$ history
20
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ history
 1  mkdir class
 2  ls
 3  cd class
 4  cd..
 5  rm -r class
 6  mkdir class
 7  mkdir os
 8  ls
 9  help
10  script alscript
11  whoami
12  date
13  ls
14  ls -a
15  ls -a -l
16  cat /etc/passwd
17  echo "This is a one-line file"
18  echo "This is a one-line file" > test1
19  cat > test2
20  cat test1 test2 > test3
21  mkdir -p Nepal/{Bagmati/{Kathmandu,Rasuwa},Gandaki/{Kaski,Gorkha}
22  tree
23  sudo apt install tree
24  tree
25  mkdir -p Laptop/{HP,Dell}
26  ls
27  rm -r Laptop
28  tree Laptop
29  ls
30  rm -r os
31  ls
32  rm -r test1 test2 test3
33  ls'
34  ls
35  rm -r Nepal
36  ls
37  rm -r class
38  ls
39  pwd
40  mkdir -p Laptop/{HP,Dell}
41  ls
```

11. Re-execute the last but one command using the redo (r) command and the number of the event.

fc -r

```
bibhuti_sigdel@Bibhuti: ~/Wt x + v
GNU nano 7.2 /tmp/bash-fc.iqWxje
fc-r

[ Read 1 line ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify
```

12.Re-execute the command given three commands ago using the negative integer.

!-3



```
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ !-3
nwho
20
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ |
```

13. Re-execute the last command which name begins with 'l'.

fc -e- l

```
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ fc -e- l
lsal
total 16
drwxr-xr-x 2 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:18 .
drwxr-xr-x 3 bibhuti_sigdel bibhuti_sigdel 4096 Dec 23 09:15 ..
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel  30 Dec 23 09:18 testa
-rw-r--r-- 1 bibhuti_sigdel bibhuti_sigdel  24 Dec 23 09:19 testb
bibhuti_sigdel@Bibhuti:~/W8/8cat-grep$ |
```