



slington college
(इस्लिङ्टन कलेज)

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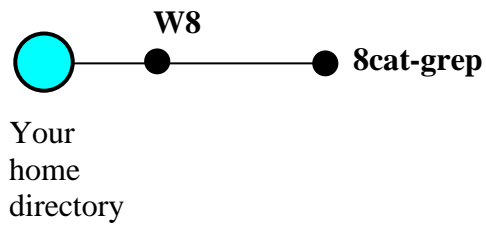
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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated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

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



- Creating a directory “W8” and subdirectory inside “W8” that is “8cat-grep”.

```
dikshya@DESKTOP-FL3C4R0:~$ mkdir -p W8/8cat-grep
```

- Tree command to show directory and subdirectory in a branch structure.

```
16 directories, 9 files
dikshya@DESKTOP-FL3C4R0:~$ tree W8
W8
├── 8cat-grep

2 directories, 0 files
dikshya@DESKTOP-FL3C4R0:~$
```

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

➔ Changing home directory to “8cat-grep” directory

```
dikshya@DESKTOP-FL3C4R0:~$ cd W8/8cat-grep
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

3. Using the **cat** utility, create two files

File testa	File testb
------------	------------

Kkkll	KKKKK
-------	-------

lllmm	LLLLL
-------	-------

oo-oo	MMMMM
-------	-------

mmmdd	DDDDD
-------	-------

dddkk	
-------	--

➔ Creating file “testa” and putting contents inside it. And the second command shows if “testa” contains any contain.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ cat > testa
Kkkll
lllmm
oo-oo
mmmdd
dddkk
^C
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ cat testa
Kkkll
lllmm
oo-oo
mmmdd
dddkk
```

- ➔ Creating file “testb” and putting contents inside it. And the second command shows if “testb” contains any contain.

```
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ cat > testb
KKKKK
LLLLL
MMMMM
DDDDD
^C
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ cat testb
KKKKK
LLLLL
MMMMM
DDDDD
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ _
```

- ➔ Tree command to show the the newly created files in a branch.

```
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ tree
.
├── testa
└── testb

1 directory, 2 files
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$
```

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

- **grep ll testa**

➔ This command searches “ll” in the file “testa” and prints the lines that contains “ll” in it.

```
1 directory, 2 files
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep ll testa
Kkkll
lllmm
```

- **grep -v ll testa**

➔ This command searches “ll” in the file “testa” and “-v” option inverts the match, so it searches for lines that do not contain “ll” in the file “testa” and prints it.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep -v ll testa
oo-oo
mmdd
dddkk
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

- **grep -n ll testa**

➔ This command searches “ll” in the file “testa” and option “-n” displays the numbers of the line which contains “ll” on it.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep -n ll testa
1:Kkkll
2:lllmm
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

- **grep -l ll ***

➔ This command searches “ll” in whole directory and option “-l” prints only the names of directory where “ll” is found.

```
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ grep -l ll *
testa
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$
```

- **grep -i ll ***

➔ This command searches “ll” in the directory “8cat-grep” and option “-i” makes the search case-insensitive hence it prints line containing both “ll” and “LL”.

```
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ grep -i ll *
testa:Kkkll
testa:lllmm
testb:LLLLL
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$
```

- **grep -i LL ***

➔ This command searches “ll” in the directory “8cat-grep” and option “-i” makes the search case-insensitive hence it prints line containing both “ll” and “LL”.

```
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$ grep -i LL *
testa:Kkkll
testa:lllmm
testb:LLLLL
dikshya@DESKTOP-FL3C4R0:~/w8/8cat-grep$
```

- **grep -c ll ***

➔ This command searches “ll” in the directory “8cat-grep” directory and option “-c” counts the number of lines that has “ll” in it.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep -c ll *
testa:2
testb:0
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

- **grep '^K' testa testb**

➔ This command searches for lines in “testa” and “testb” that starts with “K”.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep '^K' testa testb
testa:Kkkll
testb:KKKKK
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

- **grep -n '^' testa**

➔ This command searches for lines in “testa” that starts with the beginning of line hence, it prints all lines in “testa” along with line number.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ grep -n '^' testa
1:Kkkll
2:lllmm
3:oo-oo
4:mmmdd
5:dddkk
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

5. Define the **lsal** alias for **ls -al** command.

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

Use it in your home directory.

➔ Defining lsal alias for ls -al command.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ alias lsal='ls -al'
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ lsal
total 0
drwxr-xr-x 1 dikshya dikshya 512 Dec 18 10:27 .
drwxr-xr-x 1 dikshya dikshya 512 Dec 18 10:18 ..
-rw-r--r-- 1 dikshya dikshya  30 Dec 18 10:24 testa
-rw-r--r-- 1 dikshya dikshya  24 Dec 18 10:27 testb
```

➔ Checking the alias.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ alias
alias ls='ls --color=auto'
alias lsal='ls -al'
alias lsl='ls -l'
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```

6. Remove the alias.

Show that your system does not store it.

➔ Removing the alias and checking i.

```
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ unalias lsal
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$ alias
alias ls='ls --color=auto'
alias lsl='ls -l'
dikshya@DESKTOP-FL3C4R0:~/W8/8cat-grep$
```


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

Show that the system still keep this your alias.

➔ Editing the .bashrc file.

```
dikshya@DESKTOP-FL3C4R0: ~$ nano .bashrc
```

➔ Putting alias in the system by going inside .bashrc file.

```
GNU nano 7.2 .bashrc *

# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# If not running interactively, don't do anything
alias lsal='ls -al'

case $- in
  *i*) ;;
  *) return;;
esac
```

➔ Refreshing the .bashrc file and then checking the alias.

```
dikshya@DESKTOP-FL3C4R0:~$ nano .bashrc
dikshya@DESKTOP-FL3C4R0:~$ . .bashrc
dikshya@DESKTOP-FL3C4R0:~$ alias
alias ls='ls --color=auto'
alias lsal='ls -al'
alias lsl='ls -l'
dikshya@DESKTOP-FL3C4R0:~$
```

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

alias nwho='getent passwd|wc -l'

➔ Defining the nwho alias for the number of system file at UNIX computers.

```
dikshya@DESKTOP-FL3C4R0:~$ alias nwho='getent passwd|wc -l'
dikshya@DESKTOP-FL3C4R0:~$ nwho
```

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

➔ Command nwho to check the number of system file at UNIX computers.

```
dikshya@DESKTOP-FL3C4R0:~$ nwho
20
dikshya@DESKTOP-FL3C4R0:~$
```

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

➔ Checking the history of used commands.

```
dikshya@DESKTOP-FL3C4R0:~$ nano .bash_history
```

```
GNU nano 7.2 .bash_history
whoami
who
finger dikshya
date
ls
ls -a
ls -a -l
cat /etc/passwd
echo "This is a one-line file" > test1
cat > test2
ls -a -l
ls
cat -test1
cat > test1
cat test1
cat test2
echo "This is one-line file" > test1
cat test1
cat test2
cat > test2
cat test2
cat test1 test2
exit
script a1script
mkdir Laptop/HP
mkdir Laptop
mkdir Laptop/HP
mkdir Laptop/Dell
ls
ls Laptop
mkdir Laptop/Dell/File1
mkdir Laptop/Dell/File2
ls Laptop/Dell
sudo-api-get install tree
sudo-apt-get install tree
sudo apt-get install toilet
toilet "Dikshya"
sudo-api-get install sl
sudo-apt-get install sl
sudo apt-get install sl
sl
clear
mkdir Computing
mkdir/Computing/C1
ls
```

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

`fc -r`

➔ Re-executing the recently used last one command.

```
dikshya@DESKTOP-FL3C4R0:~$ fc -r
nano .bash_history
dikshya@DESKTOP-FL3C4R0:~$ █
```

```
GNU nano 7.2 /tmp/bash-fc.RjGPHM
nano .bash_history
```

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

`!-3`

➔ Re-executing the last three commands that are used recently.

```
dikshya@DESKTOP-FL3C4R0:~$ !-3
ls
alscript alscript Computing Laptop test1 test2 W7 W8
dikshya@DESKTOP-FL3C4R0:~$ █
```

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

fc -e- l

➔ Reexecuting the last command that begins with "l".

```
dikshya@DESKTOP-FL3C4R0:~$ fc -e- l
ls
alscript alscript Computing Laptop test1 test2 W7 W8
dikshya@DESKTOP-FL3C4R0:~$
```