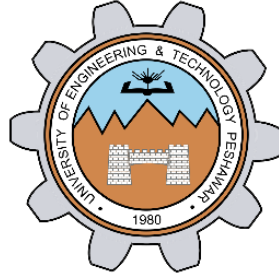


LAB NO 01
UNIX COMMANDS OVERVIEW



Fall 2024
CSE-302L Systems Programming Lab

Submitted by:

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LAB NO 01 UNIX COMMAND OVERVIEW

Task 1

1. Read the man pages for the following commands (write man [command] on terminal, press q to exit man):
 1. script
 2. finger, who, w
 3. touch
 4. top
 5. mkdir
 6. umask: umask [value] (shell built in command)
 7. text utilities: sort, uniq, tr, expand, unexpand, cut.
 8. gcc
 9. history
 10. grep
 11. awk
 12. Ps
 13. echo

Code:

```
hassan@hassan-HP-ProBook-4740s:~$ umask
0002
hassan@hassan-HP-ProBook-4740s:~$ man sought
No manual entry for sought
hassan@hassan-HP-ProBook-4740s:~$ man sort
hassan@hassan-HP-ProBook-4740s:~$ man cut
hassan@hassan-HP-ProBook-4740s:~$ who dr
hassan@hassan-HP-ProBook-4740s:~$ dr
dr: command not found
hassan@hassan-HP-ProBook-4740s:~$ man tr
hassan@hassan-HP-ProBook-4740s:~$ tr "hassan" "a"
^C
hassan@hassan-HP-ProBook-4740s:~$ who |tr "hassan" "hzj"
hjjjjj   :0                2024-10-01 10:03 (:0)
hassan@hassan-HP-ProBook-4740s:~$ echo "Hello" >file1.txt
hassan@hassan-HP-ProBook-4740s:~$ tr "A-Z" "a-z" file1.txt
tr: extra operand 'file1.txt'
Try 'tr --help' for more information.
hassan@hassan-HP-ProBook-4740s:~$ tr 'A-Z' 'a-z' file1.txt
tr: extra operand 'file1.txt'
Try 'tr --help' for more information.
hassan@hassan-HP-ProBook-4740s:~$ chmod 777 file1.txt
hassan@hassan-HP-ProBook-4740s:~$ tr 'A-Z' 'a-z' file1.txt
tr: extra operand 'file1.txt'
Try 'tr --help' for more information.
hassan@hassan-HP-ProBook-4740s:~$ cat file1.txt | tr 'A-Z' 'a-z'
hello
```

```

hassan@hassan-HP-ProBook-4740s:~$ ps
  PID TTY          TIME CMD
  8434 pts/0    00:00:00 bash
 10497 pts/0    00:00:00 ps
hassan@hassan-HP-ProBook-4740s:~$ ps -l
 F S   UID        PID      PPID  C PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
 0 S   1000        8434      8381  0  80   0  -  4812 do_wai pts/0    00:00:00 bash
 4 R   1000       10527      8434  0  80   0  -  5012 -      pts/0    00:00:00 ps
hassan@hassan-HP-ProBook-4740s:~$ man unique
No manual entry for unique
hassan@hassan-HP-ProBook-4740s:~$ man uniq
hassan@hassan-HP-ProBook-4740s:~$ man7.org
man7.org: command not found
hassan@hassan-HP-ProBook-4740s:~$ man 7.org
No manual entry for 7.org
(Alternatively, what manual page do you want from section 7.org?)
For example, try 'man man'.
hassan@hassan-HP-ProBook-4740s:~$ who expand
hassan@hassan-HP-ProBook-4740s:~$ man expand
hassan@hassan-HP-ProBook-4740s:~$ unexpand file1.txt
Hello
hassan@hassan-HP-ProBook-4740s:~$ file1.txt
file1.txt: command not found
hassan@hassan-HP-ProBook-4740s:~$ ./file1.txt
./file1.txt: line 1: Hello: command not found
hassan@hassan-HP-ProBook-4740s:~$ nano file1.txt
hassan@hassan-HP-ProBook-4740s:~$ unexpand file1.txt
Hello I am Hassan
hassan@hassan-HP-ProBook-4740s:~$ expand file1.txt
Hello I am Hassan

```

```

hassan@hassan-HP-ProBook-4740s: ~/SPLAB
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ mkdir lab1
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ touch file1.txt
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ man ln
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ ln file1.txt link1
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ ln -s file1.txt link2
ln -s: command not found
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ ln -s file1.txt link2
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ ls -l
total 4
-rw-rw-r-- 2 hassan hassan  0 Oct  3 00:52 file1.txt
drwxrwxr-x 2 hassan hassan 4096 Oct  3 00:52 lab1
-rw-rw-r-- 2 hassan hassan  0 Oct  3 00:52 link1
lrwxrwxrwx 1 hassan hassan  9 Oct  3 00:55 link2 -> file1.txt
hassan@hassan-HP-ProBook-4740s:~/SPLAB$

```

Task 2

In your home directory create the subdirectory cse302 labs/lab1 . (Use multiple mkdir commands or consult the -p option for mkdir in the man page for mkdir).

1. cd cse302/labs/lab1
2. Copy or create a file named myfile into cse302 labs/lab1 (if you create it, type something into it). For information on how to create a quick empty file, man touch.
3. Create a soft link soft link and a hard link hard link to that file.
4. Based on the output returned by stat and ls commands (using all relevant options), explain in detail (but briefly) the differences between the three files.

Code:

```
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ who
hassan    :0                2024-10-01 10:03 (:0)
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ sudo nano u/profile
[sudo] password for hassan:
```

Task 6

List the usernames and names of the people logged on the list returned should be sorted and should have the following format:

- 1 <username1> <Time>
- 2 <username2> <Time>
- 3 <username3> <Time>

Hint: use the “nl” command to number lines.

Code:

```
hassan@hassan-HP-ProBook-4740s:~/SPLAB$ w | awk {'print "<$1"><$4">"'} | nl
 1 <01:15:53><day,>
 2 <USER><LOGIN@>
 3 <hassan><Tue10>
hassan@hassan-HP-ProBook-4740s:~/SPLAB$
```

CSE 302L: SYSTEMS PROGRAMMING LAB

LAB ASSESSMENT RUBRICS

Criteria & Point Assigned	Outstanding 2	Acceptable 1.5	Considerable 1	Below Expectations 0.5	Score
Attendance and Attentiveness in Lab PLO08	Attended in proper Time and attentive in Lab	Attended in proper Time but not attentive in Lab	Attended late but attentive in Lab	Attended late not attentive in Lab	
Capability of writing Program/ Algorithm/Drawing Flow Chart PLO1, PLO2, PLO3, PLO5,	Right attempt/ no errors and well formatted	Right attempt/ no errors but not well formatted	Right attempt/ minor errors and not well formatted	Wrong attempt	
Result or Output/ Completion of target in Lab PLO9,	100% target has been completed and well formatted.	75% target has been completed and well formatted.	50% target has been completed but not well formatted.	None of the outputs are correct	
Overall, Knowledge PLO10,	Demonstrates excellent knowledge of lab	Demonstrates good knowledge of lab	Has partial idea about the Lab and procedure followed	Has poor idea about the Lab and procedure followed	
Attention to Lab Report PLO4,	Submission of Lab Report in Proper Time i.e., in next day of lab., with proper documentation.	Submission of Lab Report in proper time but not with proper documentation.	Late Submission with proper documentation.	Late Submission Very poor documentation	

Instructor:

Name: _____

Signature: _____