

# LAB 4

## QUESTION 1

```
prana2@cis106:/$ cd
prana2@cis106:~$ cd Downloads/
prana2@cis106:~/Downloads$ cd ../../
prana2@cis106:/home$ pwd
/home
prana2@cis106:/home$ cd
prana2@cis106:~$ cd ~/Documents
prana2@cis106:~/Documents$ cd
prana2@cis106:~$ cd ~/Documents
prana2@cis106:~/Documents$ pwd
/home/prana2/Documents
prana2@cis106:~/Documents$
```

## QUESTION 2

```
1: prana2@cis106: ~/lab4files
prana2@cis106:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 prana2 prana2 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 prana2 prana2 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 prana2 prana2 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 prana2 prana2 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 prana2 prana2 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 prana2 prana2 135K Feb 22 2022 website.html
-rw-rw-r-- 1 prana2 prana2 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 prana2 prana2 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 prana2 prana2 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 prana2 prana2 76 Feb 22 2022 helloWorld.c

prana2@cis106:~/lab4files$ ls -lhs --numeric-uid-gid --inode ~/lab4files
total 6.5M
2249938 -rw-rw-r-- 1 1000 1000 2.5M Feb 22 2022 Linux.pdf
2249941 -rw-rw-r-- 1 1000 1000 2.1M Feb 22 2022 Ubuntu.pdf
2249943 -rw-rw-r-- 1 1000 1000 747K Feb 22 2022 document.docx
2249944 -rw-rw-r-- 1 1000 1000 726K Feb 22 2022 globe.avi
2249942 -rw-rw-r-- 1 1000 1000 278K Feb 22 2022 csvfile.csv
2249947 -rw-rw-r-- 1 1000 1000 135K Feb 22 2022 website.html
2249940 -rw-rw-r-- 1 1000 1000 42K Feb 22 2022 Tux.png
2249939 -rw-rw-r-- 1 1000 1000 20K Feb 22 2022 countries.json
2249946 -rw-rw-r-- 1 1000 1000 8.5K Feb 22 2022 sample.xls
2249945 -rw-rw-r-- 1 1000 1000 76 Feb 22 2022 helloWorld.c

prana2@cis106:~/lab4files$ ls -lXr ~/lab4files
total 6580
-rw-rw-r-- 1 prana2 prana2 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 prana2 prana2 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 prana2 prana2 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 prana2 prana2 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 prana2 prana2 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 prana2 prana2 137453 Feb 22 2022 website.html
-rw-rw-r-- 1 prana2 prana2 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 prana2 prana2 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 prana2 prana2 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 prana2 prana2 742478 Feb 22 2022 globe.avi

prana2@cis106:~/lab4files$
```

```
-N, --literal
    print entry names without
    quoting

-o
    like -l, but do not list
    group information

-p, --indicator-style=slash
    append / indicator to direc-
    tories

-q, --hide-control-chars
    print ? instead of nongraphic
    characters

--show-control-chars
    show nongraphic characters
    as-is (the default, unless
    program is 'ls' and output is
    a terminal)

-Q, --quote-name
    enclose entry names in double
    quotes

--quoting-style=WORD
    use quoting style WORD for
    entry names: literal, locale,
    shell, shell-always,
    shell-escape, shell-es-
    cape-always, c, escape (over-
    rides QUOTING_STYLE environ-
    ment variable)

-r, --reverse
    reverse order while sorting

Manual page ls(1) line 161/353 55% (press h for help or q to quit)
```

## QUESTION 3

lab4\_scriptog.sh  
lab4\_scriptog.sh

lab4.md  
lab4\_scriptog.sh  
lab4\_q4.sh

```
1 #!/bin/bash
2 down="$HOME/Downloads"
3 cis="$HOME/cis106"
4 msg1="The current directory is: "
5 msg2="\nAll files (including files in)"
6
7 echo "the current user is $USER. It's home directory is $HOME"
8 cd $down
9 echo $msg1
10 pwd
11 cd $cis
12 echo $msg1
13 pwd
14 echo -e "$msg2 /\n"
15 ls -lA / --color=auto /
16
17 echo -e "$msg2 $HOME"
18 ls -lA / --color=auto $HOME
19
20 echo -e "$msg2 $down"
21 ls -lA / --color=auto $down
22
23
24 echo -e "$msg2 $cis"
25 ls -lA / --color=auto $cis
26
```

prana2@cis106: ~/scripts

prana2@cis106: ~/scripts

```
prana2@cis106:~/scripts$ bash lab4_scriptog.sh
the current user is prana2. It's home directory is /home/prana2
The current directory is:
/home/prana2/Downloads
The current directory is:
/home/prana2/cis106

All files (including files in) /
/:
bin, bin.usr-is-merged, boot, cdrom, dev, etc, home, lib, lib64,
lib.usr-is-merged, lost+found, media, mnt, opt, proc, root, run, sbin,
sbin.usr-is-merged, snap, srv, swap.img, sys, tmp, usr, var

All files (including files in) /home/prana2
/home/prana2:
.:
bin, bin.usr-is-merged, boot, cdrom, dev, etc, home, lib, lib64,
lib.usr-is-merged, lost+found, media, mnt, opt, proc, root, run, sbin,
sbin.usr-is-merged, snap, srv, swap.img, sys, tmp, usr, var

All files (including files in) /home/prana2/Downloads
/home/prana2/Downloads:
.:
bash_history, bash_logout, bashrc, bobsburgers, c++, .cache, cis106, .config,
Desktop, Documents, .dotnet, Downloads, error_librewolfinstaller.log,
.gitconfig, .gnupg, lab4Files, .lessht, .lessht, .local, Music, Pictures,
.pki, .profile, Public, .python_history, scripts, snap, .ssh,
.sudo_as_admin_successful, Templates, typescript, Videos, .viminfo, .vscode,
.wget-hsts
```

QUESTION 4 [CHALLENGE QUESTION]

- [script source code](#)

```
prana2@cis106:~/scripts$ bash lab4_q4.sh
changing to: /home/prana2/Pictures
changing to: /home/prana2/Videos
current PWD: /home/prana2/Videos
Previous PWD: /home/prana2/Pictures

Long list of /home/prana2/cis106
total 24
drwxrwxr-x 3 prana2 prana2 4096 2024-09-25 22:14 'cheat sheets'
drwxrwxr-x 2 prana2 prana2 4096 2024-09-25 22:10 'final exam '
drwxrwxr-x 2 prana2 prana2 4096 2024-09-25 22:10 'final project '
drwxrwxr-x 6 prana2 prana2 4096 2024-10-21 02:34 labs
drwxrwxr-x 4 prana2 prana2 4096 2024-09-26 00:36 notes
drwxrwxr-x 6 prana2 prana2 4096 2024-10-20 18:52 weekreport
SHELL=/bin/bash
SESSION_MANAGER=local/cis106:@/tmp/.ICE-unix/3353,unix/cis106:/tmp/.ICE-unix/3353
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
GNOME_SHELL_SESSION_MODE=ubuntu
SSH_AUTH_SOCK=/run/user/1000/keyring/ssh
MEMORY_PRESSURE_WRITE=c29tZSAyMDAwMDAgMjAwMDAwMAA=
XMODIFIERS=@im=ibus
DESKTOP_SESSION=ubuntu
GTK_MODULES=gail:atk-bridge
PWD=/home/prana2/Videos
XDG_SESSION_DESKTOP=ubuntu
LOGNAME=prana2
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=4012
XAUTHORITY=/run/user/1000/.mutter-Xwaylandauth.CSN1V2
HOME=/home/prana2
USERNAME=prana2
```