

## Lab 1 Brandon Fowler

1. Capture a detailed list of ALL files and directories, including dot files, in the /lib directory. By editing your text file, indicated which lines refer to: files, directories and links. – You don't need to do this for all the files, just a few to illustrate you understand the difference. (2 of each)

```

huntersike@ubuntu:/lib$ ls -l
total 736
(This is a Directory)drwxr-xr-x  2 root root   1024 Oct 17 02:28 apparmor
(This is a directory)drwxr-xr-x  2 root root   3072 Oct 17 02:29 brltty
(This is a Link)lrwxrwxrwx   1 root root     21 Oct 17 02:30 cpp ->
/etc/alternatives/cpp
drwxr-xr-x  3 root root   1024 Oct 17 02:28 crda
drwxr-xr-x 53 root root   6144 Oct 17 02:29 firmware
drwxr-xr-x  2 root root   1024 Oct 17 02:28 hdparm
drwxr-xr-x  2 root root   1024 Oct 17 02:26 init
(This is a File)-rwxr-xr-x   1 root root  72184 Sep 27  2012 klibc
mYFhAN0tcdgrJ6uSmDbFyxKe3NQ.so
(This is a link)lrwxrwxrwx   1 root root     22 Aug 21  2012 libcryptsetup.so.4
-> libcryptsetup.so.4.2.0
(This is a File)-rw-r--r--   1 root root 101224 Aug 21  2012
libcryptsetup.so.4.2.0
lrwxrwxrwx   1 root root     17 Sep 18  2012 libip4tc.so.0 -> libip4tc.so.0.0.0
-rw-r--r--   1 root root  27360 Sep 18  2012 libip4tc.so.0.0.0
lrwxrwxrwx   1 root root     17 Sep 18  2012 libip6tc.so.0 -> libip6tc.so.0.0.0
-rw-r--r--   1 root root  31488 Sep 18  2012 libip6tc.so.0.0.0
lrwxrwxrwx   1 root root     16 Sep 18  2012 libiptc.so.0 -> libiptc.so.0.0.0
-rw-r--r--   1 root root   5808 Sep 18  2012 libiptc.so.0.0.0
lrwxrwxrwx   1 root root     18 Jun 13  2012 libnewt.so.0.52 ->
libnewt.so.0.52.11
-rw-r--r--   1 root root  93984 Jun 13  2012 libnewt.so.0.52.11
-rw-r--r--   1 root root  10408 Oct  8 09:11 libnss_mdns4_minimal.so.2
-rw-r--r--   1 root root  14520 Oct  8 09:11 libnss_mdns4.so.2
-rw-r--r--   1 root root  10408 Oct  8 09:11 libnss_mdns6_minimal.so.2
-rw-r--r--   1 root root  14520 Oct  8 09:11 libnss_mdns6.so.2
-rw-r--r--   1 root root  14504 Oct  8 09:11 libnss_mdns_minimal.so.2
-rw-r--r--   1 root root  14520 Oct  8 09:11 libnss_mdns.so.2
lrwxrwxrwx   1 root root     27 Aug 16  2012 libply-boot-client.so.2 ->
libply-boot-client.so.2.0.0
-rw-r--r--   1 root root  22720 Aug 16  2012 libply-boot-client.so.2.0.0
lrwxrwxrwx   1 root root     15 Aug 16  2012 libply.so.2 -> libply.so.2.0.0
-rw-r--r--   1 root root  97376 Aug 16  2012 libply.so.2.0.0
lrwxrwxrwx   1 root root     27 Aug 16  2012 libply-splash-core.so.2 ->
libply-splash-core.so.2.0.0
-rw-r--r--   1 root root  76736 Aug 16  2012 libply-splash-core.so.2.0.0
lrwxrwxrwx   1 root root     31 Aug 16  2012 libply-splash-graphics.so.2 ->
libply-splash-graphics.so.2.0.0
-rw-r--r--   1 root root  39544 Aug 16  2012 libply-splash-graphics.so.2.0.0
lrwxrwxrwx   1 root root     19 Sep 18  2012 libxtables.so.7 ->
libxtables.so.7.0.0
-rw-r--r--   1 root root  47872 Sep 18  2012 libxtables.so.7.0.0
drwxr-xr-x  2 root root   1024 Oct 17 02:28 linux-sound-base
drwxr-xr-x  2 root root   1024 Oct 17 02:26 lsb
drwxr-xr-x  3 root root   1024 Oct 17 02:28 modules
drwxr-xr-x  4 root root   1024 Oct 17 02:29 plymouth
drwxr-xr-x  3 root root   1024 Oct 17 02:30 recovery-mode
drwxr-xr-x  2 root root   1024 Oct 17 02:26 resolvconf
drwxr-xr-x  2 root root   1024 Oct 17 02:29 security
drwxr-xr-x  3 root root   1024 Oct 11 01:17 systemd
drwxr-xr-x 15 root root   1024 Oct  4 05:26 terminfo
drwxr-xr-x  5 root root   1024 Oct 17 02:29 udev

```

```
drwxr-xr-x  2 root root   1024 Oct 17 02:30 ufw
drwxr-xr-x  3 root root   6144 Oct 17 02:28 x86_64-linux-gnu
drwxr-xr-x  2 root root   4096 Oct 17 02:28 xtables
```

2. Capture the command and a detailed listing of the file properties of the .bashrc file in your homedirectory. Add a comment below this capture that explains all the file properties of .bashrc.

```
huntersike@ubuntu:~$ ls -al
-rw-r--r--  1 huntersike huntersike 3637 Apr  3 16:57 .bashrc
User can read and write. Group can read. Other can read. User huntersike.
Contains
3637 files. Last modified on Apr  3 16:57.
```

3. Create a subdirectory called cscd240 in your home directory. Capture the command that created the directory and the output of an ls command that shows that the new directory exists.

```
huntersike@ubuntu:~$ mkdir cscd240
huntersike@ubuntu:~$ ls
cscd240  Documents  examples.desktop  Pictures  Templates
Desktop  Downloads  Music             Public    Videos
```

4. Create another subdirectory inside cscd240 that is named lab1. Capture the command that created the directory and the output of an ls command that shows that the new directory exists.

NOTE: The creation of the directory lab1 must be made from /home/yourhomedirectory

```
huntersike@ubuntu:~/cscd240$ mkdir lab1
huntersike@ubuntu:~/cscd240$ ls
lab1
```

5. With the home directory still as your current working directory, capture the command that copies the .bashrc file from your home directory to a file called orig.bashrc in the lab1 directory.

```
huntersike@ubuntu:~$ cp .bashrc orig.lab1
```

6. Within the home directory, capture a detailed listing of all the files in the lab1 directory.

```
drwxrwxr-x  2 huntersike huntersike 1024 Apr  4 18:48 .
drwxrwxr-x  3 huntersike huntersike 1024 Apr  4 18:48 ..
-rw-r--r--  1 huntersike huntersike 3637 Apr  4 18:47 orig.bashrc
```

7. Change to the lab1 directory capture the change directory command and capture a command that renames the .bashrc in lab1 to my.bashrc.

```
huntersike@ubuntu:~$ cd cscd240/lab1
huntersike@ubuntu:~/cscd240/lab1$ mv orig.bashrc my.bashrc
```

8. Capture a detailed listing of all the files in the lab1 directory.

```
drwxrwxr-x 2 huntersike huntersike 1024 Apr  4 19:10 .
drwxrwxr-x 3 huntersike huntersike 1024 Apr  4 18:48 ..
-rw-r--r-- 1 huntersike huntersike 3637 Apr  4 18:47 my.bashrc
```

9. Starting in your lab1 directory, capture a command that uses a relative pathname to make cscd240 the current working directory.

```
huntersike@ubuntu:~/cscd240/lab1$ cd ../
```

10. Use the pwd command to indicate the current working directory.

```
huntersike@ubuntu:~/cscd240$ pwd
/home/huntersike/cscd240
```

11. Starting in /usr/bin, (you will have to change to /usr/bin) (Prove you are in /usr/bin with pwd) capture the command using an absolute path that will make your home directory the current working directory. Prove the directory change with pwd.

```
huntersike@ubuntu:/usr/bin$ pwd
/usr/bin
huntersike@ubuntu:/usr/bin$ cd ~
huntersike@ubuntu:~$ pwd
/home/huntersike
```

12. Capture the command and output using rmdir (with no other commands) to delete the lab1 subdirectory. Does it delete the directory? Why or why not. What combination of commands will delete the directory? You don't need to issue the commands.

```
huntersike@ubuntu:~$ rmdir cscd240/lab1
rmdir: failed to remove `cscd240/lab1': Directory not empty
No it did not delete the directory because it is not empty. I would need to use a rm -rf cscd240/lab1 command.
```

13. Using the man page describe what is output by the env command with no arguments.

Outputs information about the environment.

14. Show a shell command that will add the current directory to the PATH (without removing any existing variables from the current value of PATH.)

```
huntersike@ubuntu:~$ PATH=PATH:/~
```

15. Describe what you would have to do to make a change to the Shell permanent.

Edit the .bashrc file directly

16. Explain how to make a Shell change permanent for all sessions including your

current session. (i.e. how do I reload my current session without closing and reopening)

Make the change in .bashrc then enter the command: `. .profile`

17. Capture the output from the echo "Current time and date is `date`" command.

```
huntersike@ubuntu:~$ echo "Current time and date is `date`"
Current time and date is Thu Apr  4 20:30:39 PDT 2013
```

18. Issue the date command and capture its output. Now, capture the output from the echo 'Current time and date is `date`' command. Note that the ` character is an accent NOT an apostrophe '. Explain why the output is different in particular to the single and double quotes. Also explain what the ` character does.

```
huntersike@ubuntu:~$ date
Thu Apr  4 20:33:04 PDT 2013
huntersike@ubuntu:~$ echo "Current time and date is `date`"
Current time and date is Thu Apr  4 20:30:39 PDT 2013
The accents identify the word date as a command inside of the quotes. So that command is executed first on the inside, then the entire line is outputted as a string.
```

19. Create a symbolic link called almost that links to the lab1 directory. Capture the output

```
huntersike@ubuntu:~$ ln -s cscd240/lab1 almost
huntersike@ubuntu:~$ ls -al
lrwxrwxrwx  1 huntersike huntersike  12 Apr  4 20:46 almost -> cscd240/lab1
```

20. Change to almost and capture the output.

```
huntersike@ubuntu:~$ cd almost
huntersike@ubuntu:~/almost$ pwd
/home/huntersike/almost
```

21. Use "help" to get information on how to use the alias command.

- What information is provided in from "help"?
- When do should you use "help" compared to when you should use "man

The information provided is a description of the uses for the alias command. Use help when you want to know what a command does, and man when you want to know how to use a command.

22. Create an alias named LA that is `ls -al`. Capture the output and show it worked.

```
huntersike@ubuntu:~$ alias LA=`ls -al`
huntersike@ubuntu:~$ LA
The program 'total' is currently not installed. You can install it by typing:
sudo apt-get install radiance
drwxr-xr-x: command not found
drwxr-xr-x: command not found
bash: cscd240/lab1: Is a directory
-rw-----: command not found
-rw-r--r--: command not found
-rw-r--r--: command not found
```

```

drwx-----: command not found
drwx-----: command not found
drwx-----: command not found
drwxrwxr-x: command not found
drwx-----: command not found
drwxr-xr-x: command not found
-rw-r--r--: command not found
drwxr-xr-x: command not found
drwxr-xr-x: command not found
-rw-r--r--: command not found
drwx-----: command not found
drwxr-xr-x: command not found
-rw-----: command not found
drwxrwxr-x: command not found
-rw-rw-r--: command not found
-rw-----: command not found
-rw-r--r--: command not found
drwxr-xr-x: command not found
drwx-----: command not found
drwx-----: command not found
drwxr-xr-x: command not found
-rw-r--r--: command not found
drwxr-xr-x: command not found
-rw-r--r--: command not found
drwxr-xr-x: command not found
drwx-----: command not found
-rw-----: command not found
drwxr-xr-x: command not found
drwxr-xr-x: command not found
-rw-----: command not found
-rw-----: command not found
-rw-----: command not found

```

23. Capture the command to redirect your output from #17 to a file named date.txt.

```
huntersike@ubuntu:~$ echo "Current time and date is `date`" > date.txt
```

24. Issue the more or less command on date.txt and capture the output.

```
huntersike@ubuntu:~$ less date.txt
Current time and date is Thu Apr  4 21:22:41 PDT 2013
```

25. Capture the long listing of date.txt.

```
-rw-rw-r-- 1 huntersike huntersike  54 Apr  4 21:22 date.txt
```

26. Modify date.txt to add executable privileges to date.txt for the owner, Capture the command and proof that the permissions were changed. No other permissions will be changed. You must do this with the octal values.

```
huntersike@ubuntu:~$ chmod 764 date.txt
-rwxrw-r-- 1 huntersike huntersike  54 Apr  4 21:22 date.txt
```

27. Modify date.txt to remove w from the group. Capture the command and proof that the permissions were changed. No other permissions will be changed. You must do this without

using the octal values.

```
huntersike@ubuntu:~$ chmod g-w date.txt
-rwxr--r-- 1 huntersike huntersike 54 Apr 4 21:22 date.txt
```

28. Capture the command to create a tar file named date.tgz that contains date.txt. Capture the ls command to show the tar file was created.

```
huntersike@ubuntu:~$ tar cvfz date.tgz date.txt
huntersike@ubuntu:~$ ls
almost  date.txt  Downloads      Music      Public
cscd240 Desktop  examples.desktop orig.lab1  Templates
date.tgz Documents lab1           Pictures   Videos
```

29. Capture the command to create a zip file named date.zip that contains date.txt. Capture the ls command to show the zip file was created.

```
huntersike@ubuntu:~$ zip date.zip date.txt
huntersike@ubuntu:~$ ls
almost  date.txt  Documents      lab1      Pictures  Videos
cscd240 date.zip  Downloads      Music     Public
date.tgz Desktop  examples.desktop orig.lab1  Templates
```

30. Change directory so you are working from within the lab1 directory. Once in the directory:

- Capture the command that will create 6 files using the touch command. The files will be named test, test1, test21, test3, something, nothing.
- Capture the use of PICO to add text to the file test1.
- Capture the long listing of test1 to show the size changed.
- Capture the ls command using metacharacters that will print all files named test followed by a single digit.

```
huntersike@ubuntu:~/cscd240/lab1$ touch test test1 test21 test3 something
nothing
```

```
huntersike@ubuntu:~/cscd240/lab1$ pico test1
```

```
-rw-rw-r-- 1 huntersike huntersike 13 Apr 4 22:11 test1
```

```
huntersike@ubuntu:~/cscd240/lab1$ ls test?
test1 test3
```

31. With your home directory as your current working directory complete the following:

- Create a symbolic link called myTest which refers to test1 in the lab1 directory
- Capture a long listing of all the files in your home directory.

```
huntersike@ubuntu:~$ ln -s cscd240/lab1 myTest
```

```
drwxr-xr-x 22 huntersike huntersike 1024 Apr 4 22:20 .
drwxr-xr-x 3 root          root      1024 Apr 3 16:57 ..
lrwxrwxrwx 1 huntersike huntersike 12 Apr 4 20:46 almost -> cscd240/lab1
-rw----- 1 huntersike huntersike 2641 Apr 4 21:18 .bash_history
-rw-r--r-- 1 huntersike huntersike 220 Apr 3 16:57 .bash_logout
-rw-r--r-- 1 huntersike huntersike 3637 Apr 3 16:57 .bashrc
```

```

drwx----- 15 huntersike huntersike 1024 Apr 4 19:43 .cache
drwx----- 3 huntersike huntersike 1024 Apr 4 00:16 .compiz
drwx----- 15 huntersike huntersike 1024 Apr 4 19:43 .config
drwxrwxr-x 3 huntersike huntersike 1024 Apr 4 18:48 cscd240
-rw-rw-r-- 1 huntersike huntersike 175 Apr 4 21:56 date.tgz
-rwxr--r-- 1 huntersike huntersike 54 Apr 4 21:22 date.txt
-rw-rw-r-- 1 huntersike huntersike 220 Apr 4 22:04 date.zip
drwx----- 3 huntersike huntersike 1024 Apr 4 00:00 .dbus
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 22:17 Desktop
-rw-r--r-- 1 huntersike huntersike 25 Apr 4 17:24 .dmrc
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Documents
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 17:26 Downloads
-rw-r--r-- 1 huntersike huntersike 8445 Apr 3 16:57 examples.desktop
drwx----- 3 huntersike huntersike 1024 Apr 4 17:24 .gconf
drwxr-xr-x 3 huntersike huntersike 1024 Apr 4 00:01 .gnome2
-rw----- 1 huntersike huntersike 0 Apr 4 00:16 .goutputstream-PMSUW
drwxrwxr-x 2 huntersike huntersike 1024 Apr 4 19:41 .gstreamer-0.10
-rw-rw-r-- 1 huntersike huntersike 162 Apr 4 17:24 .gtk-bookmarks
-rw----- 1 huntersike huntersike 954 Apr 4 17:24 .ICEauthority
-rw-r--r-- 1 huntersike huntersike 3637 Apr 4 18:46 lab1
drwxr-xr-x 3 huntersike huntersike 1024 Apr 4 00:00 .local
drwx----- 3 huntersike huntersike 1024 Apr 4 00:01 .mission-control
drwx----- 4 huntersike huntersike 1024 Apr 4 00:03 .mozilla
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Music
lrwxrwxrwx 1 huntersike huntersike 12 Apr 4 22:20 myTest -> cscd240/lab1
-rw-r--r-- 1 huntersike huntersike 3637 Apr 4 19:00 orig.lab1
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Pictures
-rw-r--r-- 1 huntersike huntersike 675 Apr 3 16:57 .profile
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Public
drwx----- 2 huntersike huntersike 1024 Apr 4 17:24 .pulse
-rw----- 1 huntersike huntersike 256 Apr 4 00:00 .pulse-cookie
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Templates
drwxr-xr-x 2 huntersike huntersike 1024 Apr 4 00:00 Videos
-rw----- 1 huntersike huntersike 51 Apr 4 17:24 .Xauthority
-rw----- 1 huntersike huntersike 8219 Apr 4 21:23 .xsession-errors
-rw----- 1 huntersike huntersike 3312 Apr 4 17:16 .xsession-errors.old

```

32. Explain when and why one would ever use the sudo command? Is the sudo command ever issued behind the scenes by the operating system? Justify your answer.

One would use the sudo command to gain access temporarily to the administrative privileges of the super user. The operating system shouldn't need to use sudo behind the scenes since it can just have root access.

33. Capture the command echo \$SHELL.

- What shell are you using?
- Capture the command required to install ksh
- Capture the command to switch to ksh
- Capture the command echo \$SHELL.
- What shell are you using? Why is the shell different than you expected?
- Capture the command to leave ksh

```

huntersike@ubuntu:~$ echo $SHELL
/bin/bash

```

I am using the bash shell.

```

huntersike@ubuntu:~$ sudo apt-get install ksh

```

```
huntersike@ubuntu:~$ ksh
```

```
$ echo $SHELL
```

I am now using the Korn shell. The command line looks different, and the up arrow doesn't re-input my last command anymore.

```
$ bash
```

34. Capture the command `echo $PS1`.  
a. Capture the command `PS1="prompt : "`  
b. Explained what happened  
c. Capture the command to add the date to "prompt : "  
d. Explain how to change the prompt permanently.

```
huntersike@ubuntu:~$ echo $PS1
\[e]0;\u@\h: \w\a\>${debian_chroot:+($debian_chroot)}\u@\h:\w\$
```

The command line was changed to say prompt:

```
prompt : PS1="propmt : `date`"
```

You could change the prompt permanently by editing the `.bashrc` file, and changing the line that specifys this.

35. Capture the `df` command  
a. What is the purpose of the `df` command  
b. Capture the `df` command that allows the output in human readable format

The `df` command displays the usage of space of file systems.

The `df-h` command would output in human readable format.

36. Capture the output of the command "history"  
a. How many lines were displayed?  
b. How do you execute the last command without retyping it?  
c. How do you change the number commands saved in the history file? (Hint: `bashrc`)

```
1 /lib
2 ls-al /lib
3 ls-al
4 ls /lib
5 clear
6 ls al /lib
7 pwd
8 pwd /lib
9 /lib
10 ls /lib
11 cd lib
12 cd /lib
13 dir
14 ls
15 dir
16 cleaR
17 clear
18 pwd
19 ls -l
20 clear
```



```
21 /.
22 .
23 cd /.
24 .bashrc
25 ls
26 which bashrc
27 which .bashrc
28 which .bashrc.
29 cd /bin
30 ls
31 ls -l
32 .bashrc
33 bashrc
34 .bashrc.
35 bashrc.
36 clear
37 cd /.
38 clear
39 $HOME/ .bashrc
40 /ls
41 /home
42 cd /home
43 ls
44 find / -name "bashrc"
45 cd /etc
46 ls
47 clear
48 /home
49 cd /home
50 cd /etc
51 ls -bash
52 /etc
53 cd /etc
54 ls -l
55 mkdir cscd240
56 ls
57 cd cscd240
58 mkdir lab1
59 ls
60 cp bash.bashrc orig.bashrc
61 ls -l
62 cp bash.bashrc /lab1/orig.bashrc
63 cp /etc/bash.bashrc /lab1/orig.bashrc
64 cp /etc/bash.bashrc/lab1/orig.bashrc
65 clear
66 ls -*.bashrc
67 ls *.bashrc
68 ls -.bashrc
69 ls -al
70 clear
71 cp-rf .bashrc.home orig.bashrc.lab1
72 cf .bashrc.home orig.bashrc/lab1
73 pf .bashrc.home orig.bashrc/lab1
74 pf .bashrc.home orig.b
75 cp .bashrc.home orig.bashrc/lab1
76 cp .bashrc orig.bashrc
77 ls
78 move orig /lab1
79 move ori.bashrc /lab1
80 move orig.bashrc /lab1
81 mv orig.bashrc /lab1
82 mv orig.bashrc /cscd240
```

```
83 sudo mv orig.bashrc /lab1
84 cd lab1
85 cd /lab1
86 cd /cscd240/lab1
87 cd cscd240
88 cd lab1
89 ls
90 ls -al
91 ls
92 ls -al
93 cp .bashrc orig.bashrc
94 sudo mv orig.bashrc lab1
95 cd lab1
96 cd cscd240/lab1
97 ls
98 cp .bashrc orig.bashrc
99 sudo mv orig.bashrc cscd240
100 sudo mv orig.bashrc lab1
101 cd cscd240
102 sudo mv orig.bashrc lab1
103 cd lab1
104 ls
105 ls -al
106 /clear
107 clear
108 ~
109 cd ~
110 clear
111 cp .bashrc orig.lab1
112 cd cscd240
113 cd cscdlab1
114 cd lab1
115 ls
116 /~
117 cd /~
118 cd ~
119 clear
120 cd cscd240/lab1
121 mv orig.bashrc my.bashrc
122 ls -al
123 /.
124 ./
125 cd /.
126 cd cscd240
127 cd/~
128 cd /~
129 cd ~
130 cd cscd240
131 cd lab1
132 cd /.
133 cd ~
134 cd cscd240/lab1
135 cd .
136 cd ./
137 cd ./lab1
138 cd ./cscd240/lab1
139 cd ./lab1
140 cd ../lab1
141 cd ./lab1
142 cd .lab1
143 cd ./
144 ../
```

```
145 cd ../
146 pwd
147 root
148 cd root
149 cd path
150 cd /huntersike/bin
151 cd huntersike/bin
152 cd /home/bin
153 cd ~/bin
154 cd ~/bin
155 cd /bin
156 pwd
157 ..
158 cd ..
159 ~/
160 cd ~
161 cd cscd240
162 cd /boot/huntersike/bin
163 cd boot/huntersike/bin
164 cd ~/bin
165 cd ~
166 cd bin
167 etc/bin
168 bin
169 which bin
170 which /bin
171 cd usr/bin
172 cd /usr/bin
173 pwd
174 cd ~
175 pwd
176 rmdir lab1
177 rmdir cscd240/lab1
178 man env
179 env
180 man env
181 info coreutils 'env invocation'
182 clear
183 PATH=PATH:.
184 PATH
185 $PATH
186 CD~
187 cd ~
188 PATH=PATH:~
189 PATH=PATH/~
190 echo $PATH
191 PATH=PATH:/~
192 echo $PATH
193 . .profile
194 echo "Current time and date is `date`"
195 date
196 clear
197 ls -s cscd240/lab1 almost
198 clear
199 ln -s cscd240/lab1 almost
200 ls
201 ls -al
202 clear
203 cd almost
204 pdw
205 pwd
206 clear
```

```

207 cd ~
208 clear
209 help alias
210 clear
211 LA=ls -al
212 clear
213 LA=`ls -al`
214 LA
215 ls -al
216 clear
217 LA=`ls -al`
218 LA
219 clear
220 ln -s LA etc/ls -al
221 which ls -al
222 ln -s LA bin/ls/ls -al
223 ln -s LA bin/ls/al
224 ln -s LA bin/ls/ls -al
225 ln -s bin/ls/ls -al LA
226 ln -s bin/ls/`ls -al` LA
227 cd bin/ls
228 cd bin
229 cd /bin
230 cd /ls
231 cd ls
232 ln -s /bin/ls LA
233 cd ~
234 ln -s /bin/ls LA
235 LA
236 ls
237 ln -s /bin/ls/`ls -al` LA
238 ln -s /bin/ls/ls LA
239 rm LA
240 ln -s /bin/ls/ls LA
241 LA
242 rm LA
243 alias
244 alias /bin/ls/ls LA
245 alias /bin/ls LA
246 alias bin/ls LA
247 alias LA=`ls -al`
248 LA
249 clear
250 echo $PS1
251 PS1="prompt : "
252 PS1="propmt : `date`"
253 df
254 history

```

254 lines were displayed.

Excute the last command by typing !254

To modify the amount of commands saved in history type after the other commands in the .bashrc file: set history = #