

Intro to the Command Line

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The Unix Philosophy

Small, sharp tools ... each of which does a well defined job very well.

The Terminal

[illegible]

The Terminal

```
jfass@nickel:~$ ssh cabernet.genomecenter.ucdavis.edu
```

```

/\
/ : / ( _ ) | |
| : | _ , | | _ , _ _ _ | _
| : | / | | / \ _ | / | / | / | / |
| : | \ _ / \ _ / | \ _ / | | \ _ / | \ _ /
| : .genomecenter.ucdavis.edu /
\ ;
\
[...]
```

jfass@cabernet:~\$

The Terminal

```
jfass@cabernet:~$
```

<-- prompt (includes \$ and one space after)

Huge # of possible configurations; in this case:

<uname>@<hostname>:<pwd>\$<space>

(pwd = present working directory)

Command Line Basics - Don't work on head node!

```
jfass@cabernet:~$ srun -t 1440 -n 1 --mem 8000
--reservation workshop --pty /bin/bash

srun: job 5461103 queued and waiting for resources

srun: error: Lookup failed: Unknown host

srun: job 5461103 has been allocated resources

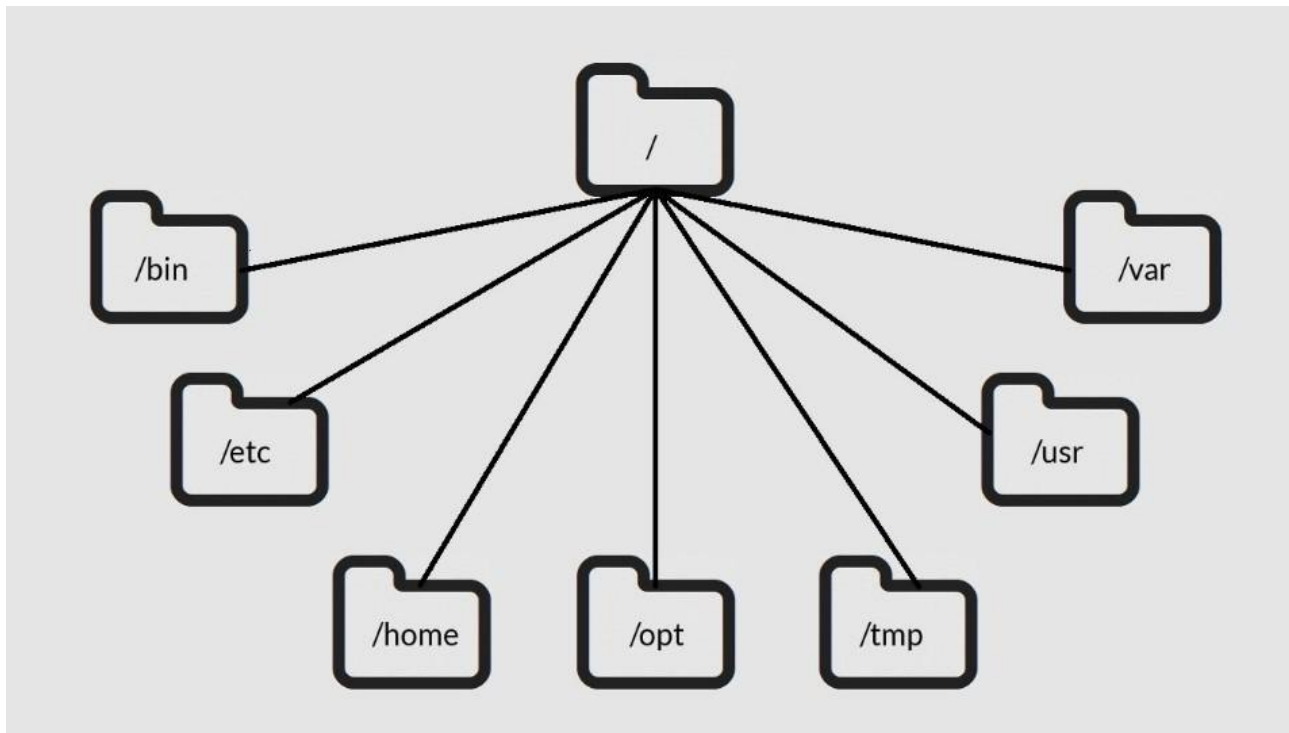
jfass@c4-1:~$
```

This logs you into an interactive session on one of the cluster nodes, so you don't all play on the head node.

Cut -n paste from here, or (to avoid problems) from hands-on page:

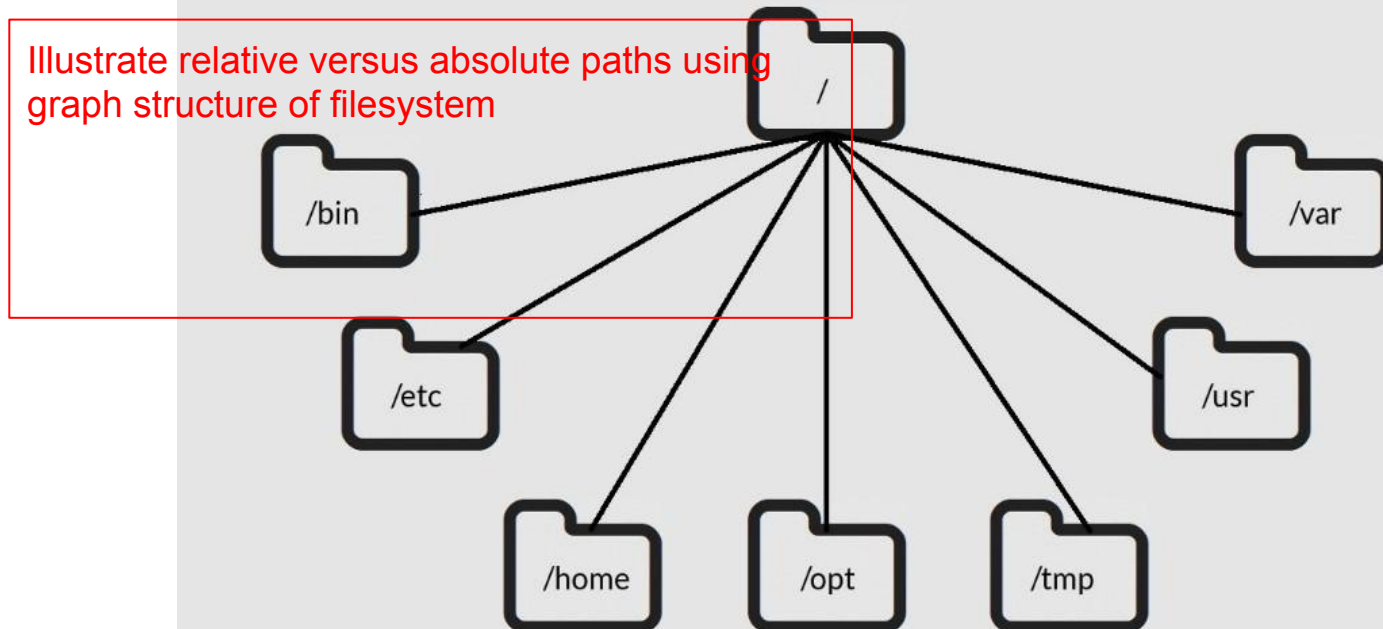
```
srun -t 1440 -n 1 --mem 8000 --reservation workshop --pty /bin/bash
```

Command Line Basics - Directory Structure



www.linuxtrainingacademy.com

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Command Line Basics - Table of Processes

```
~/CLB$ top
```

“Top” prints a self-updating table of running processes and system stats. Try “M,” “P,” and “u” then uname ...

```
top - 14:15:13 up 94 days,  4:52, 35 users,  load average: 3.00, 3.00, 3.00
Tasks: 557 total,   1 running, 554 sleeping,   2 stopped,   0 zombie
%Cpu(s):  0.0 us,   0.0 sy,   0.0 ni, 62.5 id, 37.5 wa,   0.0 hi,   0.0 si,   0.0 st
KiB Mem: 12293548 total, 11816988 used,  476560 free,  260124 buffers
KiB Swap: 1952764 total,  358824 used, 1593940 free. 9564044 cached Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM    TIME+  COMMAND
 1804 root        20   0 124528 34060  1872  S   0.0   0.3   4:29.20 puppet
   457 syslog     20   0 256232 18532  1112  S   0.0   0.2   1:02.95 rsyslogd
 1660 unbound    20   0  60300 14900  2460  S   0.0   0.1   2:56.08 unbound
21877 mahardi+  20   0  29752 12712  3424  S   0.0   0.1   0:00.95 bash
 1407 ganglia    20   0 184448 11004  1368  S   0.0   0.1  79:39.08 gmond
32645 johndav+  20   0 311312  9768  3372  S   0.0   0.1   0:01.28 srunk
20548 ruijuan+   20   0 311312  9640  3388  S   0.0   0.1   0:00.15 srunk
14825 swestre+  20   0 311308  9624  3364  S   0.0   0.1   0:00.50 srunk
```

Questions ... comments ... confusion?