Jenish Patel

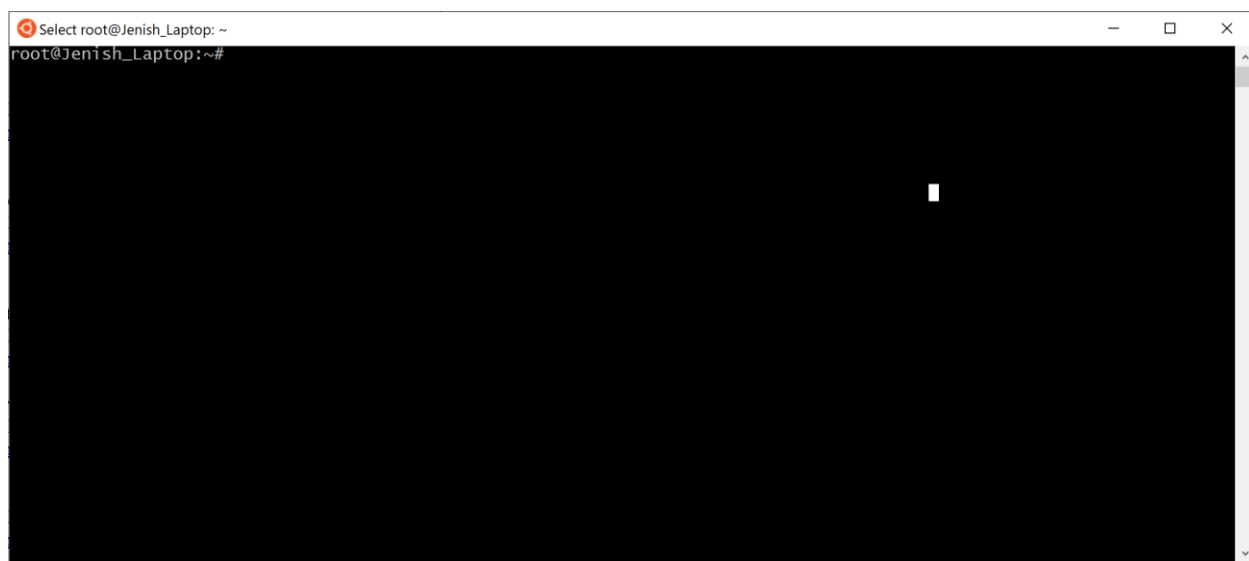Prof. Cheng

CS453

2/2/2021

<div align="center">Title: HW1.2</div>

1.

2.

```
root@Jenish_Laptop: ~/cs453                                              —   □   ×
root@Jenish_Laptop:~# pwd
/root
root@Jenish_Laptop:~# ls
Dir1   Dirr      a.txt   dirr      isit.txt   l       l1.pl    lab2.sh   n.txt    normal.txt   spin.sh
Dir2   Dirrr     b.pl    f1        java       l.gpg   l1.sh    lk.sh     na.sh    p.pl         vir
Dir3   Makefile  cs350   file.txt  k.sh       l.pl    l2       lo.sh     nm.sh    p1.c         vir.gpg
Dir4   Student   cs453   ir.sh     ki         l1      lab.sh   n.awk     nor      r.txt
root@Jenish_Laptop:~# cd cs453
root@Jenish_Laptop:~/cs453# pwd
/root/cs453
root@Jenish_Laptop:~/cs453# cd ..
root@Jenish_Laptop:~# pwd
/root
root@Jenish_Laptop:~# cd
root@Jenish_Laptop:~# cd ~/cs453
root@Jenish_Laptop:~/cs453#
```

3.

```
root@Jenish_Laptop: ~                                                    —   □   ×
root@Jenish_Laptop:~/cs453# cd ..
root@Jenish_Laptop:~# ls /etc
NetworkManager        depmod.d              ld.so.conf.d          os-release              services
X11                   dhcp                  ldap                  overlayroot.conf        shadow
acpi                  dnsmasq.d             legal                 overlayroot.local.conf  shells
adduser.conf          dnsmasq.d-available   libaudit.conf         pam.conf                skel
alternatives          dpkg                  locale.alias          pam.d                   sos.conf
apm                   ec2_version           locale.gen            passwd                  ssh
apparmor              emacs                 localtime             perl                    ssl
apparmor.d            environment           logcheck              pm                      subgid
apport                ethertypes            login.defs            polkit-1                subgid-
apt                   fonts                 logrotate.conf        pollinate               subuid
at.deny               fstab                 logrotate.d           popularity-contest.conf subuid-
bash.bashrc           fuse.conf             lsb-release           profile                 sudoers
bash_completion       gai.conf              ltrace.conf           profile.d               sudoers.d
bash_completion.d     gdb                   lvm                   protocols               sysctl.conf
bindresvport.blacklist groff                machine-id            pulse                   sysctl.d
binfmt.d              group                 magic                 python3                 systemd
boxes                 gshadow               magic.mime            python3.6               terminfo
byobu                 gss                   mailcap               rc0.d                   timezone
ca-certificates       hdparm.conf           mailcap.order         rc1.d                   tmpfiles.d
ca-certificates.conf  host.conf             manpath.config        rc2.d                   ucf.conf
calendar              hostname              mdadm                 rc3.d                   udev
cloud                 hosts                 mime.types            rc4.d                   ufw
console-setup         hosts.allow           mke2fs.conf           rc5.d                   update-manager
cron.d                hosts.deny            modprobe.d            rc6.d                   update-motd.d
cron.daily            init.d                modules               rcS.d                   update-notifier
cron.hourly           initramfs-tools       modules-load.d        resolv.conf             updatedb.conf
cron.monthly          inputrc               mono                  rmt                     vim
cron.weekly           iproute2              mtab                  rpc                     vmware-tools
crontab               iscsi                 nanorc                rsyslog.conf            vtrgb
cryptsetup-initramfs  issue                 netplan               rsyslog.d               wgetrc
crypttab              issue.net             network               screenrc                xdg
dbus-1                kernel                networkd-dispatcher   securetty               zsh_command_not_found
debconf.conf          kernel-img.conf       networks              security
debian_version        landscape             newt                  selinux
default               ld.so.cache           nsswitch.conf         sensors.d
deluser.conf          ld.so.conf            opt                   sensors3.conf
root@Jenish_Laptop:~# ls /etc/a*
/etc/adduser.conf  /etc/at.deny
```

```
root@Jenish_Laptop: ~                                                    —   □   ×

root@Jenish_Laptop:~# ls /etc/a*
/etc/adduser.conf   /etc/at.deny

/etc/acpi:
events

/etc/alternatives:
README          ex.it.1.gz        infobrowser.1.gz   lzgrep.1.gz    pager.1.gz      telnet.1.gz        view.it.1.gz
awk             ex.ja.1.gz        jsondiff           lzless         pftp            text.plymouth      view.ja.1.gz
awk.1.gz        ex.pl.1.gz        jsonpatch          lzless.1.gz    pftp.1.gz       traceroute6        view.pl.1.gz
builtins.7.gz   ex.ru.1.gz        jsonpointer        lzma           pico            traceroute6.8.gz   view.ru.1.gz
c++             faked.1.gz        jsonschema         lzma.1.gz      pico.1.gz       unlzma             vim
c++.1.gz        faked.es.1.gz     locate             lzmore         pinentry        unlzma.1.gz        vimdiff
c89             faked.fr.1.gz     locate.1.gz        lzmore.1.gz    pinentry.1.gz   updatedb           vtrgb
c89.1.gz        faked.sv.1.gz     lzcat              mt             rcp             updatedb.8.gz      w
c99             fakeroot          lzcat.1.gz         mt.1.gz        rcp.1.gz        vi                 w.1.gz
c99.1.gz        fakeroot.1.gz     lzcmp              nawk           rlogin          vi.1.gz            write
cc              fakeroot.es.1.gz  lzcmp.1.gz         nawk.1.gz      rlogin.1.gz     vi.fr.1.gz         write.1.gz
cc.1.gz         fakeroot.fr.1.gz  lzdiff             nc             rmt             vi.it.1.gz         www-browser
cpp             fakeroot.sv.1.gz  lzdiff.1.gz        nc.1.gz        rmt.8.gz        vi.ja.1.gz         x-www-browser
editor          from              lzegrep            netcat         rsh             vi.pl.1.gz
editor.1.gz     from.1.gz         lzegrep.1.gz       netcat.1.gz    rsh.1.gz        vi.ru.1.gz
ex              ftp               lzfgrep            netrc.5.gz     rview           view
ex.1.gz         ftp.1.gz          lzfgrep.1.gz       newt-palette   rvim            view.1.gz
ex.fr.1.gz      infobrowser       lzgrep             pager          telnet          view.fr.1.gz

/etc/apm:
event.d

/etc/apparmor:
init  parser.conf   subdomain.conf

/etc/apparmor.d:
abstractions   force-complain   lxc-containers   usr.bin.lxc-start          usr.sbin.rsyslogd
cache          local            sbin.dhclient    usr.bin.man                usr.sbin.tcpdump
disable        lxc              tunables         usr.lib.snapd.snap-confine.real

/etc/apport:
blacklist.d   crashdb.conf

/etc/apt:
apt.conf.d  auth.conf.d  preferences.d  sources.list  sources.list.d  trusted.gpg.d
root@Jenish_Laptop:~#
```

```
root@Jenish_Laptop: ~                                                    —  □  ×

root@Jenish_Laptop:~# ls /etc/A*
ls: cannot access '/etc/A*': No such file or directory
root@Jenish_Laptop:~# ls /etc/*a*
/etc/adduser.conf          /etc/gshadow          /etc/lsb-release       /etc/overlayroot.conf
/etc/at.deny               /etc/hdparm.conf      /etc/ltrace.conf       /etc/overlayroot.local.conf
/etc/bash.bashrc           /etc/hostname         /etc/machine-id        /etc/pam.conf
/etc/bash_completion       /etc/hosts.allow      /etc/magic             /etc/passwd
/etc/bindresvport.blacklist /etc/ld.so.cache     /etc/magic.mime        /etc/popularity-contest.conf
/etc/ca-certificates.conf  /etc/legal            /etc/mailcap           /etc/shadow
/etc/crontab               /etc/libaudit.conf    /etc/mailcap.order     /etc/updatedb.conf
/etc/crypttab              /etc/locale.alias     /etc/manpath.config    /etc/zsh_command_not_found
/etc/debian_version        /etc/locale.gen       /etc/mtab
/etc/fstab                 /etc/localtime        /etc/nanorc
/etc/gai.conf              /etc/logrotate.conf   /etc/os-release

/etc/NetworkManager:
dispatcher.d

/etc/acpi:
events

/etc/alternatives:
README          ex.it.1.gz      infobrowser.1.gz  lzgrep.1.gz    pager.1.gz     telnet.1.gz        view.it.1.gz
awk             ex.ja.1.gz      jsondiff          lzless         pftp           text.plymouth      view.ja.1.gz
awk.1.gz        ex.pl.1.gz      jsonpatch         lzless.1.gz    pftp.1.gz      traceroute6        view.pl.1.gz
builtins.7.gz   ex.ru.1.gz      jsonpointer       lzma           pico           traceroute6.8.gz   view.ru.1.gz
c++             faked.1.gz      jsonschema        lzma.1.gz      pico.1.gz      unlzma             vim
c++.1.gz        faked.es.1.gz   locate            lzmore         pinentry       unlzma.1.gz        vimdiff
c89             faked.fr.1.gz   locate.1.gz       lzmore.1.gz    pinentry.1.gz  updatedb           vtrgb
c89.1.gz        faked.sv.1.gz   lzcat             mt             rcp            updatedb.8.gz      w
c99             fakeroot        lzcat.1.gz        mt.1.gz        rcp.1.gz       vi                 w.1.gz
c99.1.gz        fakeroot.1.gz   lzcmp             nawk           rlogin         vi.1.gz            write
cc              fakeroot.es.1.gz lzcmp.1.gz       nawk.1.gz      rlogin.1.gz    vi.fr.1.gz         write.1.gz
cc.1.gz         fakeroot.fr.1.gz lzdiff           nc             rmt            vi.it.1.gz         www-browser
cpp             fakeroot.sv.1.gz lzdiff.1.gz      nc.1.gz        rmt.8.gz       vi.ja.1.gz         x-www-browser
editor          from            lzegrep           netcat         rsh            vi.pl.1.gz
editor.1.gz     from.1.gz       lzegrep.1.gz      netcat.1.gz    rsh.1.gz       vi.ru.1.gz
ex              ftp             lzfgrep           netrc.5.gz     rview          view
ex.1.gz         ftp.1.gz        lzfgrep.1.gz      newt-palette   rvim           view.1.gz
ex.fr.1.gz      infobrowser     lzgrep            pager          telnet         view.fr.1.gz

/etc/apm:
event.d

/etc/apparmor:
init   parser.conf   subdomain.conf

/etc/apparmor.d:
abstractions  disable        local  lxc-containers  tunables        usr.bin.man              usr.sbin.rsyslogd
cache         force-complain lxc    sbin.dhclient   usr.bin.lxc-start  usr.lib.snapd.snap-confine.real usr.sbin.tcpdump

/etc/apport:
blacklist.d   crashdb.conf

/etc/apt:
apt.conf.d  auth.conf.d  preferences.d  sources.list  sources.list.d  trusted.gpg.d

/etc/bash_completion.d:
```

```
root@Jenish_Laptop: ~                                                    —   □   ×

/etc/default:
acpid           console-setup  dbus       irqbalance  mdadm                nss          rsync    ufw
apport          cron           ebtables   keyboard    motd-news            open-iscsi   rsyslog  useradd
bsdmainutils    cryptdisks     grub.d     locale      networkd-dispatcher  pollinate    ssh

/etc/dnsmasq.d:
lxd

/etc/dnsmasq.d-available:
lxd

/etc/emacs:
site-start.d

/etc/initramfs-tools:
conf.d   hooks   initramfs.conf   modules   scripts   update-initramfs.conf

/etc/landscape:

/etc/ldap:
ldap.conf

/etc/logrotate.d:
alternatives   apport   apt   dpkg   lxd   rsyslog   ufw   unattended-upgrades

/etc/mdadm:
mdadm.conf

/etc/modules-load.d:
modules.conf

/etc/netplan:

/etc/networkd-dispatcher:
dormant.d   no-carrier.d   off.d   routable.d

/etc/pam.d:
atd       chsh              common-password             cron       other     runuser    su            vmtoolsd
chfn      common-account    common-session              login      passwd    runuser-l  sudo
chpasswd  common-auth       common-session-noninteractive  newusers  polkit-1  sshd       systemd-user

/etc/pollinate:
entropy.ubuntu.com.pem

/etc/update-manager:
meta-release   release-upgrades   release-upgrades.d

/etc/update-motd.d:
00-header               50-motd-news     90-updates-available    95-hwe-eol         98-reboot-required
10-help-text            80-esm           91-release-upgrade      97-overlayroot
50-landscape-sysinfo    80-livepatch     92-unattended-upgrades  98-fsck-at-reboot

/etc/update-notifier:

/etc/vmware-tools:
poweroff-vm-default   resume-vm-default   statechange.subr   tools.conf         vgauth        vm-support
poweron-vm-default    scripts             suspend-vm-default  tools.conf.example  vgauth.conf
```

```
root@Jenish_Laptop: ~                                                    —    □    ×

root@Jenish_Laptop:~# ls /etc/[a-c]*
/etc/adduser.conf   /etc/bash.bashrc        /etc/bindresvport.blacklist   /etc/crontab
/etc/at.deny        /etc/bash_completion   /etc/ca-certificates.conf     /etc/crypttab

/etc/acpi:
events

/etc/alternatives:
README          ex.it.1.gz      infobrowser.1.gz   lzgrep.1.gz     pager.1.gz      telnet.1.gz       view.it.1.gz
awk             ex.ja.1.gz      jsondiff           lzless          pftp            text.plymouth     view.ja.1.gz
awk.1.gz        ex.pl.1.gz      jsonpatch          lzless.1.gz     pftp.1.gz       traceroute6       view.pl.1.gz
builtins.7.gz   ex.ru.1.gz      jsonpointer        lzma            pico            traceroute6.8.gz  view.ru.1.gz
c++             faked.1.gz      jsonschema         lzma.1.gz       pico.1.gz       unlzma            vim
c++.1.gz        faked.es.1.gz   locate             lzmore          pinentry        unlzma.1.gz       vimdiff
c89             faked.fr.1.gz   locate.1.gz        lzmore.1.gz     pinentry.1.gz   updatedb          vtrgb
c89.1.gz        faked.sv.1.gz   lzcat              mt              rcp             updatedb.8.gz     w
c99             fakeroot        lzcat.1.gz         mt.1.gz         rcp.1.gz        vi                w.1.gz
c99.1.gz        fakeroot.1.gz   lzcmp              nawk            rlogin          vi.1.gz           write
cc              fakeroot.es.1.gz lzcmp.1.gz        nawk.1.gz       rlogin.1.gz     vi.fr.1.gz        write.1.gz
cc.1.gz         fakeroot.fr.1.gz lzdiff            nc              rmt             vi.it.1.gz        www-browser
cpp             fakeroot.sv.1.gz lzdiff.1.gz       nc.1.gz         rmt.8.gz        vi.ja.1.gz        x-www-browser
editor          from            lzegrep            netcat          rsh             vi.pl.1.gz
editor.1.gz     from.1.gz       lzegrep.1.gz       netcat.1.gz     rsh.1.gz        vi.ru.1.gz
ex              ftp             lzfgrep            netrc.5.gz      rview           view
ex.1.gz         ftp.1.gz        lzfgrep.1.gz       newt-palette    rvim            view.1.gz
ex.fr.1.gz      infobrowser     lzgrep             pager           telnet          view.fr.1.gz

/etc/apm:
event.d

/etc/apparmor:
init   parser.conf   subdomain.conf

/etc/apparmor.d:
abstractions   disable          local   lxc-containers   tunables        usr.bin.man                    usr.sbin.rsyslogd
cache          force-complain   lxc     sbin.dhclient    usr.bin.lxc-start   usr.lib.snapd.snap-confine.real   usr.sbin.tcpdump

/etc/apport:
blacklist.d   crashdb.conf

/etc/apt:
apt.conf.d   auth.conf.d   preferences.d   sources.list   sources.list.d   trusted.gpg.d

/etc/bash_completion.d:
apport_completion   git-prompt

/etc/binfmt.d:

/etc/boxes:
boxes-config

/etc/byobu:
backend   socketdir

/etc/ca-certificates:
update.d

/etc/calendar:
```

4.

```
root@Jenish_Laptop: ~                                                    —    □    ×
root@Jenish_Laptop:~# ls -l /etc
total 294
drwxr-xr-x 1 root root        512 Mar   4   2020 NetworkManager
drwxr-xr-x 1 root root        512 Mar   4   2020 X11
drwxr-xr-x 1 root root        512 Mar   4   2020 acpi
-rw-r--r-- 1 root root       3028 Mar   4   2020 adduser.conf
drwxr-xr-x 1 root root        512 Sep   2 19:48 alternatives
drwxr-xr-x 1 root root        512 Mar   4   2020 apm
drwxr-xr-x 1 root root        512 Mar   4   2020 apparmor
drwxr-xr-x 1 root root        512 Mar   4   2020 apparmor.d
drwxr-xr-x 1 root root        512 Mar   4   2020 apport
drwxr-xr-x 1 root root        512 Mar   4   2020 apt
-rw-r----- 1 root daemon      144 Feb  19   2018 at.deny
-rw-r--r-- 1 root root       2319 Apr   4   2018 bash.bashrc
-rw-r--r-- 1 root root         45 Apr   1   2018 bash_completion
drwxr-xr-x 1 root root        512 Mar   4   2020 bash_completion.d
-rw-r--r-- 1 root root        367 Jan  27   2016 bindresvport.blacklist
drwxr-xr-x 1 root root        512 Apr  20   2018 binfmt.d
drwxr-xr-x 1 root root        512 Aug   4 11:31 boxes
drwxr-xr-x 1 root root        512 Mar   4   2020 byobu
drwxr-xr-x 1 root root        512 Mar   4   2020 ca-certificates
-rw-r--r-- 1 root root       5898 Mar   4   2020 ca-certificates.conf
drwxr-xr-x 1 root root        512 Mar   4   2020 calendar
drwxr-xr-x 1 root root        512 Mar   4   2020 cloud
drwxr-xr-x 1 root root        512 Mar   4   2020 console-setup
drwxr-xr-x 1 root root        512 Mar   4   2020 cron.d
drwxr-xr-x 1 root root        512 Mar   4   2020 cron.daily
drwxr-xr-x 1 root root        512 Mar   4   2020 cron.hourly
drwxr-xr-x 1 root root        512 Mar   4   2020 cron.monthly
drwxr-xr-x 1 root root        512 Mar   4   2020 cron.weekly
-rw-r--r-- 1 root root        722 Nov  15   2017 crontab
drwxr-xr-x 1 root root        512 Mar   4   2020 cryptsetup-initramfs
-rw-r--r-- 1 root root         54 Mar   4   2020 crypttab
drwxr-xr-x 1 root root        512 Mar   4   2020 dbus-1
-rw-r--r-- 1 root root       2969 Feb  28   2018 debconf.conf
-rw-r--r-- 1 root root         11 Jun  25   2017 debian_version
drwxr-xr-x 1 root root        512 Mar   4   2020 default
-rw-r--r-- 1 root root        604 Aug  13   2017 deluser.conf
drwxr-xr-x 1 root root        512 Mar   4   2020 depmod.d
drwxr-xr-x 1 root root        512 Mar   4   2020 dhcp
drwxr-xr-x 1 root root        512 Mar   4   2020 dnsmasq.d
drwxr-xr-x 1 root root        512 Mar   4   2020 dnsmasq.d-available
drwxr-xr-x 1 root root        512 Sep   2 19:48 dpkg
-rw-r--r-- 1 root root         35 Mar   4   2020 ec2_version
drwxr-xr-x 1 root root        512 Aug   4 11:31 emacs
-rw-r--r-- 1 root root         96 Mar   4   2020 environment
```

5.

root@Jenish_Laptop: ~/cs453   —   □   ✕

  GNU nano 2.9.3   myfile.txt

The Reading Campus Grid is a Condor Pool consisting of about 300
nodes. It is provided by IT Services and the School of Systems
Engineering.
The aim of the Campus Grid is to provide researchers with a High
Throughput Computing resource; these are designed to process tasks
that require fairly short processing times (usually minutes or
hours) but that need to be run 100's or 1000's of times.
For example; say you have a process that takes a sample of data
from a data-set, analyses the sample and then stores a result. This
process takes 30 minutes but needs to be done 1000 times. This
requires 500 hours of processing time. On a single computer this
task will take about 21 days to complete whereas using the Campus
Grid (using around 250 nodes) this can be done in 2 hours!

                              [Read 14 lines]
^G Get Help   ^O Write Out   ^W Where Is   ^K Cut Text   ^J Justify   ^C Cur Pos
^X Exit   ^R Read File   ^\ Replace   ^U Uncut Text ^T To Spell   ^_ Go To Line

root@Jenish_Laptop: ~/cs453

root@Jenish_Laptop:~/cs453# nano myfile.txt
root@Jenish_Laptop:~/cs453# ls
a   myfile.txt   reciprocol.c
root@Jenish_Laptop:~/cs453#

6.

root@Jenish_Laptop: ~/cs453

```
root@Jenish_Laptop:~/cs453# clear
root@Jenish_Laptop:~/cs453# cat myfile.txt
The Reading Campus Grid is a Condor Pool consisting of about 300
nodes. It is provided by IT Services and the School of Systems
Engineering.
The aim of the Campus Grid is to provide researchers with a High
Throughput Computing resource; these are designed to process tasks
that require fairly short processing times (usually minutes or
hours) but that need to be run 100's or 1000's of times.
For example; say you have a process that takes a sample of data
from a data-set, analyses the sample and then stores a result. This
process takes 30 minutes but needs to be done 1000 times. This
requires 500 hours of processing time. On a single computer this
task will take about 21 days to complete whereas using the Campus
Grid (using around 250 nodes) this can be done in 2 hours!

root@Jenish_Laptop:~/cs453# less myfile.txt

[3]+  Stopped                 less myfile.txt
root@Jenish_Laptop:~/cs453# grep Engineering myfile.txt
Engineering.
root@Jenish_Laptop:~/cs453#
```

7.

root@Jenish_Laptop: ~/cs453

```
root@Jenish_Laptop:~/cs453# cp myfile.txt myjunk.txt
root@Jenish_Laptop:~/cs453# ls
a  myfile.txt  myjunk.txt  reciprocol.c
root@Jenish_Laptop:~/cs453# mv myjunk.txt myold.txt
root@Jenish_Laptop:~/cs453# ls
a  myfile.txt  myold.txt  reciprocol.c
root@Jenish_Laptop:~/cs453#
```

```
root@Jenish_Laptop: ~/cs453
root@Jenish_Laptop:~/cs453# mkdir test
root@Jenish_Laptop:~/cs453# cp -r test test2
root@Jenish_Laptop:~/cs453# mv test2 test3
root@Jenish_Laptop:~/cs453# ls
a  myfile.txt  myold.txt  reciprocol.c  test  test3
root@Jenish_Laptop:~/cs453# rm myold.txt
root@Jenish_Laptop:~/cs453# ls
a  myfile.txt  reciprocol.c  test  test3
root@Jenish_Laptop:~/cs453#
```

8.

```
root@Jenish_Laptop: ~/cs453                                    —   □   ×

root@Jenish_Laptop:~/cs453# echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/mnt
/c/Program Files/WindowsApps/CanonicalGroupLimited.UbuntuonWindows_2004.2020.812.0_x64__79rhk
p1fndgsc:/mnt/c/Python38/Scripts/:/mnt/c/Python38/:/mnt/c/windows/system32:/mnt/c/windows:/mn
t/c/windows/System32/Wbem:/mnt/c/windows/System32/WindowsPowerShell/v1.0/:/mnt/c/windows/Syst
em32/OpenSSH/:/mnt/c/Program Files (x86)/NVIDIA Corporation/PhysX/Common:/mnt/c/Program Files
/NVIDIA Corporation/NVIDIA NvDLISR:/mnt/c/ProgramData/chocolatey/bin:/mnt/c/Program Files/nod
ejs/:/mnt/c/Program Files/Microsoft SQL Server/130/Tools/Binn/:/mnt/c/Program Files/PuTTY/:/m
nt/c/WINDOWS/system32:/mnt/c/WINDOWS:/mnt/c/WINDOWS/System32/Wbem:/mnt/c/WINDOWS/System32/Win
dowsPowerShell/v1.0/:/mnt/c/WINDOWS/System32/OpenSSH/:/mnt/c/Program Files/Git/cmd:/mnt/c/Use
rs/Jenis/AppData/Local/Microsoft/WindowsApps:/mnt/c/Users/Jenis/AppData/Local/Programs/Micros
oft VS Code/bin:/mnt/c/Users/Jenis/AppData/Local/GitHubDesktop/bin:/mnt/c/Users/Jenis/AppData
/Roaming/npm:/mnt/c/Users/Jenis/AppData/Local/Microsoft/WindowsApps:/snap/bin
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453# export MYNAME=Jenish
root@Jenish_Laptop:~/cs453# echo ${MYNAME}
Jenish
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453#
root@Jenish_Laptop:~/cs453# env
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=
40;31;01:mi=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.t
gz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:*.lzh=01;31:*.lzma=01;31
:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.Z=01;31:*.dz=01;31:*
.gz=01;31:*.lrz=01;31:*.lz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzst=01;31:*.bz2=01;31:
*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;3
1:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=0
1;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpe
g=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;3
5:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz
=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*
.webm=01;35:*.ogm=01;35:*.mp4=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;
35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi=01;35:*.fli=01;35:*.flv=
01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv
=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*
.mka=00;36:*.mp3=00;36:*.mpc=00;36:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;3
6:*.spx=00;36:*.xspf=00;36:
HOSTTYPE=x86_64
LESSCLOSE=/usr/bin/lesspipe %s %s
LANG=C.UTF-8
OLDPWD=/root
WSL_DISTRO_NAME=Ubuntu
MYNAME=Jenish
USER=root
PWD=/root/cs453
HOME=/root
NAME=Jenish_Laptop
XDG_DATA_DIRS=/usr/local/share:/usr/share:/var/lib/snapd/desktop
SHELL=/bin/bash
TERM=xterm-256color
SHLVL=1
```

```
root@Jenish_Laptop: ~/cs453                                    —  □  ×
root@Jenish_Laptop:~/cs453# sleep 1000 &
[6] 149
root@Jenish_Laptop:~/cs453# jobs
[1]    Stopped                    nano myfile.txt
[2]-   Stopped                    nano myfile.txt
[3]+   Stopped                    less myfile.txt
[4]    Running                    sleep 100 &
[5]    Running                    sleep 1000 &
[6]    Running                    sleep 1000 &
root@Jenish_Laptop:~/cs453# kill %1
root@Jenish_Laptop:~/cs453#




















jobs
[1]+   Stopped                    nano myfile.txt
[2]    Stopped                    nano myfile.txt
[3]-   Stopped                    less myfile.txt
[4]    Running                    sleep 100 &
[5]    Running                    sleep 1000 &
[6]    Running                    sleep 1000 &
root@Jenish_Laptop:~/cs453#
```

```
 root@Jenish_Laptop: ~/cs453                                    —    □    ✕
root@Jenish_Laptop:~/cs453# sleep 1000
^Z[4]   Done                      sleep 100

[7]+  Stopped                     sleep 1000
root@Jenish_Laptop:~/cs453# jobs
[1]-   Stopped                    nano myfile.txt
[2]    Stopped                    nano myfile.txt
[3]    Stopped                    less myfile.txt
[5]    Running                    sleep 1000 &
[6]    Running                    sleep 1000 &
[7]+   Stopped                    sleep 1000
root@Jenish_Laptop:~/cs453# bg %1
[1]- nano myfile.txt &
root@Jenish_Laptop:~/cs453# jobs
[1]+   Stopped                    nano myfile.txt
[2]    Stopped                    nano myfile.txt
[3]    Stopped                    less myfile.txt
[5]    Running                    sleep 1000 &
[6]    Running                    sleep 1000 &
[7]-   Stopped                    sleep 1000
root@Jenish_Laptop:~/cs453# fg %1
nano myfile.txt
Received SIGHUP or SIGTERM

Buffer written to myfile.txt.save
root@Jenish_Laptop:~/cs453# ps
  PID TTY          TIME CMD
    7 tty1     00:00:00 init
    8 tty1     00:00:00 bash
   88 tty1     00:00:00 nano
  104 tty1     00:00:00 less
  147 tty1     00:00:00 sleep
  149 tty1     00:00:00 sleep
  151 tty1     00:00:00 sleep
  152 tty1     00:00:00 ps
root@Jenish_Laptop:~/cs453#
```