CYBR 1500 Assignment, Week 2

# Part I: Required Readings and Lecture Content

***NB****. You may read first, and watch lectures after; Or, watch the lectures, and read the text after--your choice.*

*If the videos reference any content with page numbers that you can’t locate in your textbook, please let me know. Since the 3rd edition of the textbook is used in the videos, when you use a different version of the textbook, the page numbers will be different.*

* Watch the videos here for the lectures:

Video Lecture 1: <https://youtu.be/fNKv6xsTCpg>

Video Lecture 1 (Cont.): <https://youtu.be/LW7-l7h2fkE>

Video Lecture 2: <https://www.youtube.com/watch?v=TMrFfRn9Z0c&feature=youtu.be>

Video Lecture 3: <https://www.youtube.com/watch?v=3QadR8Yt6EA&feature=youtu.be>

* Read and be familiar with chapters 1-3 of Blum & Bresnahan.

# Part 2: Terminal Session

*NB. In this section you will perform some tasks on the command line and capture the interactions by copying and pasting the text from the terminal. In the GNOME terminal, you can easily do this by selecting Edit/Select All from the menu, then Edit/Copy; then, paste into this document.*

*NB. If you want to enable clipboard sharing in VirtualBox in order to copy and paste text from host to virtual machine or vice versa, from the VirtualBox menu, Devices/Shared Clipboard, select “bidirectional” for maximum flexibility.*

*If you are still unable to copy and past text from your virtual machine to your host machine, you can use the browser inside of Linux, paste the text to google docs, copy and paste work similar to Windows and other operating system. Then later access google docs from your host machine. Then you can download your document to your host machine and submit it to Blackboard.*

1. Start a new terminal session.
2. Show your current working directory by using the appropriate command.
3. Use the appropriate command to list the content of your current working directory.
4. Without changing the directory, show the contents of the **/etc** directory.
5. Navigate to the **/etc** directory so it becomes the current working directory.
6. Return to your directory which should be something like this /home/<your name>. For example: /home/trang
7. Navigate to the **Documents** subdirectory.
8. Create a directory called “**Week2**” in your **~/Documents** directory.
9. Create three files in that directory called **<name>1**, **<name>2**, and **<name>3**, where **<name>** is your last name, e.g., “**smith1**,” etc. Use the **touch** command to create the files.
10. Create hard links for two of the files you created in the last step.
11. Make a subdirectory within the **Week2** directory called **links**, and move the hard links to that location.
12. Use **ls** to verify the contents of the **links** subdirectory and the **Week2** directory.
13. Copy all the text in the terminal, paste it where indicated below, and change its font to Courier New, 10 point, for better display:

>>>>>Paste your terminal capture below this line >>>>>

To run a command as administrator (user "root"), use "sudo <command>".

See "man sudo\_root" for details.

andrew@andrew-VirtualBox:~$ pwd

/home/andrew

andrew@andrew-VirtualBox:~$ ls

Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos

andrew@andrew-VirtualBox:~$ ls /etc

acpi                       guest-session    pki

adduser.conf               gufw             pm

adjtime                    hddtemp.db       pnm2ppa.conf

alsa                       hdparm.conf      polkit-1

alternatives               host.conf        ppp

anacrontab                 hostname         profile

apg.conf                   hosts            profile.d

apm                        hosts.allow      protocols

apparmor                   hosts.deny       pulse

apparmor.d                 hp               python3

apport                     ifplugd          python3.8

appstream.conf             init             rc0.d

apt                        init.d           rc1.d

avahi                      initramfs-tools  rc2.d

bash.bashrc                inputrc          rc3.d

bash\_completion            inxi.conf        rc4.d

bash\_completion.d          iproute2         rc5.d

bindresvport.blacklist     issue            rc6.d

binfmt.d                   issue.net        rcS.d

bluetooth                  java-11-openjdk  request-key.conf

brlapi.key                 kernel           request-key.d

brltty                     kernel-img.conf  resolv.conf

brltty.conf                kerneloops.conf  rmt

ca-certificates            ldap             rpc

ca-certificates.conf       ld.so.cache      rsyslog.conf

ca-certificates.conf.dpkg-old  ld.so.conf       rsyslog.d

calendar                   ld.so.conf.d     samba

casper.conf                legal            sane.d

catdocrc                   libao.conf       security

chatscripts                libaudit.conf    selinux

cifs-utils                 libblockdev      sensors3.conf

console-setup              libnl-3          sensors.d

cracklib                   libpaper.d       services

cron.d                     libreoffice      sgml

cron.daily                 lightdm          shadow

cron.hourly                lintianrc        shadow-

cron.monthly               linuxmint        shells

crontab                    locale.alias     skel

cron.weekly                locale.gen       snmp

cryptsetup-initramfs       localtime        speech-dispatcher

cups                       logcheck         ssh

cupshelpers                login.defs       ssl

dbus-1                     logrotate.conf   subgid

dconf                      logrotate.d      subgid-

debconf.conf               lsb-release      subuid

debian\_version             ltrace.conf      subuid-

default                    lvm              sudoers

deluser.conf               machine-id       sudoers.d

depmod.d                   magic            sysctl.conf

dhcp                       magic.mime       sysctl.d

dictionaries-common        mailcap          systemd

dkms                       mailcap.order    terminfo

doc-base                   manpath.config   thermald

dpkg                       menu-methods     thunderbird

e2scrub.conf               mime.types       timeshift

emacs                      mke2fs.conf      timezone

environment                modprobe.d       timidity

environment.d              modules          tmpfiles.d

ethertypes                 modules-load.d   ucf.conf

firefox                    mtab             udev

fonts                      mtools.conf      udisks2

fprintd.conf               mysql            ufw

fstab                      nanorc           updatedb.conf

fuse.conf                  netplan          update-motd.d

fwupd                      network          UPower

gai.conf                   networkd-dispatcher  upstream-release

gamemode.ini               NetworkManager   usb\_modeswitch.conf

gdb                        networks         usb\_modeswitch.d

geoclue                    newt             vdpau\_wrapper.cfg

ghostscript                nsswitch.conf    vim

glvnd                      openal           vmware-tools

gnome                      openvpn          vtrgb

gnome-app-install          opt              vulkan

groff                      os-release       wgetrc

group                      PackageKit       wpa\_supplicant

group-                     pam.conf         X11

grub.d                     pam.d            xattr.conf

gshadow                    papersize        xdg

gshadow-                   passwd           xml

gss                        passwd-          zsh\_command\_not\_found

gtk-2.0                    pcmcia

gtk-3.0                    perl

andrew@andrew-VirtualBox:~$ cd /etc

andrew@andrew-VirtualBox:/etc$ cd /home/andrew

andrew@andrew-VirtualBox:~$ cd documents

bash: cd: documents: No such file or directory

andrew@andrew-VirtualBox:~$ cd /documents

bash: cd: /documents: No such file or directory

andrew@andrew-VirtualBox:~$ cd Documents

andrew@andrew-VirtualBox:~/Documents$ mkdir week2

andrew@andrew-VirtualBox:~/Documents$ cd week2

andrew@andrew-VirtualBox:~/Documents/week2$ pwd

/home/andrew/Documents/week2

andrew@andrew-VirtualBox:~/Documents/week2$ touch koenig1

andrew@andrew-VirtualBox:~/Documents/week2$ touch koenig2

andrew@andrew-VirtualBox:~/Documents/week2$ touch koenig3

andrew@andrew-VirtualBox:~/Documents/week2$ ls

koenig1  koenig2  koenig3

andrew@andrew-VirtualBox:~/Documents/week2$ mkdir links

andrew@andrew-VirtualBox:~/Documents/week2$ ls

koenig1  koenig2  koenig3  links

andrew@andrew-VirtualBox:~/Documents/week2$ ln koenig1 link\_1

andrew@andrew-VirtualBox:~/Documents/week2$ ls

koenig1  koenig2  koenig3  link\_1  links

andrew@andrew-VirtualBox:~/Documents/week2$ ln koenig2 link\_2

andrew@andrew-VirtualBox:~/Documents/week2$ mv link\_1 links

andrew@andrew-VirtualBox:~/Documents/week2$ mv link\_2 links

andrew@andrew-VirtualBox:~/Documents/week2$ ls

koenig1  koenig2  koenig3  links

andrew@andrew-VirtualBox:~/Documents/week2$ cd links

andrew@andrew-VirtualBox:~/Documents/week2/links$ ls

link\_1  link\_2

andrew@andrew-VirtualBox:~/Documents/week2/links$

<<<<< Paste your terminal capture above this line <<<<<

# Part 3: Additional Questions

Answer the following questions in the space below each one.

1. What are the four main parts that make up a Linux system?

Linux kernel, GNU utilities, Graphical desktop environment, and application software.

1. Define “Linux Kernel.”

The kernel controls all hardware and software on the system, allocating memory and executing software.

***NB. Don’t forget to take the quiz 1!***

# Rubric

* Part 2, Terminal session, 26 points: executes all indicated instructions in the given order, 26 points. Errors in the session that are corrected in subsequent interactions, no penalty. Minor, uncorrected errors or failure to follow instructions, deductions from 1-26 points according to grader’s judgment of the proportion of correct to total.
* Part 3, Additional Questions, 14 points (7 points each).