Lab 7 Handling Text Files

Question 1

```
jrodriguez4@cis106-VirtualBox:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:104:111::/home/syslog:/usr/sbin/nologin
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:116::/run/uuidd:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:118::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
whoopsie:x:117:124::/nonexistent:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
```

```
jrodriguez4@cis106-VirtualBox:~$ tac /etc/passwd
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
whoopsie:x:117:124::/nonexistent:/bin/false
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
tcpdump:x:109:118::/nonexistent:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
uuidd:x:107:116::/run/uuidd:/usr/sbin/nologin
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
syslog:x:104:111::/home/syslog:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105::/nonexistent:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
```

```
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
games:x:5:60:games:/usr/games:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
sys:x:3:3:sys:/dev:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
root:x:0:0:root:/root:/bin/bash
jrodriguez4@cis106-VirtualBox:~$
```

```
Try 'cat --help' for more information.
jrodriguez4@cis106-VirtualBox:~$ cat -nE /etc/passwd
     1  root:x:0:0:root:/root:/bin/bash$
     2  daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin$
     3  bin:x:2:2:bin:/bin:/usr/sbin/nologin$
     4  sys:x:3:3:sys:/dev:/usr/sbin/nologin$
     5  sync:x:4:65534:sync:/bin:/bin/sync$
     6  games:x:5:60:games:/usr/games:/usr/sbin/nologin$
     7  man:x:6:12:man:/var/cache/man:/usr/sbin/nologin$
     8  lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin$
     9  mail:x:8:8:mail:/var/mail:/usr/sbin/nologin$
    10  news:x:9:9:news:/var/spool/news:/usr/sbin/nologin$
    11  uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin$
    12  proxy:x:13:13:proxy:/bin:/usr/sbin/nologin$
    13  www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin$
    14  backup:x:34:34:backup:/var/backups:/usr/sbin/nologin$
    15  list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin$
    16  irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin$
    17  gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin$
    18  nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin$
    19  systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin$
    20  systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin$
    21  messagebus:x:102:105::/nonexistent:/usr/sbin/nologin$
    22  systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin$
    23  syslog:x:104:111::/home/syslog:/usr/sbin/nologin$
    24  _apt:x:105:65534::/nonexistent:/usr/sbin/nologin$
    25  tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false$
    26  uuidd:x:107:116::/run/uuidd:/usr/sbin/nologin$
    27  systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin$
    28  tcpdump:x:109:118::/nonexistent:/usr/sbin/nologin$
    29  avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin$
    30  usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin$
    31  dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin$
    32  kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin$
    33  avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin$
    34  cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin$
    35  rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin$
    36  whoopsie:x:117:124::/nonexistent:/bin/false$
    37  sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin$
    38  speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false$
    39  fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin$
    40  nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin$
    41  saned:x:122:129::/var/lib/saned:/usr/sbin/nologin$
    42  colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin$
    43  geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin$
    44  pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin$
    45  gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false$
    46  hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false$
    47  gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false$
    48  jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash$
    49  vboxadd:x:999:1::/var/run/vboxadd:/bin/false$
    50  _flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin$
jrodriguez4@cis106-VirtualBox:~$ head -5 /etc/passwd
```

```
jrodriguez4@cis106-VirtualBox:~$ head -5 /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
jrodriguez4@cis106-VirtualBox:~$ tail -5 /etc/passwd
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
jrodriguez4@cis106-VirtualBox:~$
```

```
root:x:0:0:root:/root:/bin/bash
jrodriguez4@cis106-VirtualBox:~$ tail -5 /etc/passwd
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
jrodriguez4@cis106-VirtualBox:~$
```

Question 2

```
jrodriguez4@cis106-VirtualBox:~$ cut -d ':' -f1 /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
messagebus
systemd-timesync
syslog
_apt
tss
uuidd
systemd-oom
tcpdump
avahi-autoipd
usbmux
dnsmasq
kernoops
avahi
cups-pk-helper
rtkit
whoopsie
sssd
speech-dispatcher
fwupd-refresh
nm-openvpn
saned
colord
geoclue
pulse
gnome-initial-setup
hplip
gdm
jrodriguez4
vboxadd
_flatpak
```

```
jrodriguez4@cis106-VirtualBox:~$ cut -d ':' -f1,7 /etc/passwd
root:/bin/bash
daemon:/usr/sbin/nologin
bin:/usr/sbin/nologin
sys:/usr/sbin/nologin
sync:/bin/sync
games:/usr/sbin/nologin
man:/usr/sbin/nologin
lp:/usr/sbin/nologin
mail:/usr/sbin/nologin
news:/usr/sbin/nologin
uucp:/usr/sbin/nologin
proxy:/usr/sbin/nologin
www-data:/usr/sbin/nologin
backup:/usr/sbin/nologin
list:/usr/sbin/nologin
irc:/usr/sbin/nologin
```

```
gnats:/usr/sbin/nologin
nobody:/usr/sbin/nologin
systemd-network:/usr/sbin/nologin
systemd-resolve:/usr/sbin/nologin
messagebus:/usr/sbin/nologin
systemd-timesync:/usr/sbin/nologin
syslog:/usr/sbin/nologin
_apt:/usr/sbin/nologin
tss:/bin/false
uuidd:/usr/sbin/nologin
systemd-oom:/usr/sbin/nologin
tcpdump:/usr/sbin/nologin
avahi-autoipd:/usr/sbin/nologin
usbmux:/usr/sbin/nologin
dnsmasq:/usr/sbin/nologin
kernoops:/usr/sbin/nologin
avahi:/usr/sbin/nologin
cups-pk-helper:/usr/sbin/nologin
rtkit:/usr/sbin/nologin
whoopsie:/bin/false
sssd:/usr/sbin/nologin
speech-dispatcher:/bin/false
fwupd-refresh:/usr/sbin/nologin
nm-openvpn:/usr/sbin/nologin
saned:/usr/sbin/nologin
colord:/usr/sbin/nologin
geoclue:/usr/sbin/nologin
pulse:/usr/sbin/nologin
gnome-initial-setup:/bin/false
hplip:/bin/false
gdm:/bin/false
jrodriguez4:/bin/bash
vboxadd:/bin/false
_flatpak:/usr/sbin/nologin
```

```
jrodriguez4@cis106-VirtualBox:~$ cut -d ':' -f1,7 --output-delimiter=' = ' /etc/passwd
root = /bin/bash
daemon = /usr/sbin/nologin
bin = /usr/sbin/nologin
sys = /usr/sbin/nologin
sync = /bin/sync
games = /usr/sbin/nologin
man = /usr/sbin/nologin
lp = /usr/sbin/nologin
mail = /usr/sbin/nologin
news = /usr/sbin/nologin
uucp = /usr/sbin/nologin
proxy = /usr/sbin/nologin
www-data = /usr/sbin/nologin
backup = /usr/sbin/nologin
list = /usr/sbin/nologin
irc = /usr/sbin/nologin
gnats = /usr/sbin/nologin
nobody = /usr/sbin/nologin
systemd-network = /usr/sbin/nologin
systemd-resolve = /usr/sbin/nologin
messagebus = /usr/sbin/nologin
systemd-timesync = /usr/sbin/nologin
syslog = /usr/sbin/nologin
_apt = /usr/sbin/nologin
tss = /bin/false
uuidd = /usr/sbin/nologin
systemd-oom = /usr/sbin/nologin
tcpdump = /usr/sbin/nologin
avahi-autoipd = /usr/sbin/nologin
usbmux = /usr/sbin/nologin
dnsmasq = /usr/sbin/nologin
kernoops = /usr/sbin/nologin
avahi = /usr/sbin/nologin
cups-pk-helper = /usr/sbin/nologin
rtkit = /usr/sbin/nologin
whoopsie = /bin/false
sssd = /usr/sbin/nologin
speech-dispatcher = /bin/false
fwupd-refresh = /usr/sbin/nologin
nm-openvpn = /usr/sbin/nologin
saned = /usr/sbin/nologin
colord = /usr/sbin/nologin
geoclue = /usr/sbin/nologin
pulse = /usr/sbin/nologin
gnome-initial-setup = /bin/false
hplip = /bin/false
gdm = /bin/false
jrodriguez4 = /bin/bash
vboxadd = /bin/false
_flatpak = /usr/sbin/nologin
```

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```
Try 'cut --help' for more information.
jrodriguez4@cis106-VirtualBox:~$ cut -d ":" --complement -s -f3  /etc/passwd
root:x:0:root:/root:/bin/bash
daemon:x:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:bin:/bin:/usr/sbin/nologin
sys:x:3:sys:/dev:/usr/sbin/nologin
sync:x:65534:sync:/bin:/bin/sync
games:x:60:games:/usr/games:/usr/sbin/nologin
man:x:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:105::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:111::/home/syslog:/usr/sbin/nologin
_apt:x:65534::/nonexistent:/usr/sbin/nologin
tss:x:113:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:116::/run/uuidd:/usr/sbin/nologin
systemd-oom:x:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:118::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
avahi:x:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
rtkit:x:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
whoopsie:x:124::/nonexistent:/bin/false
sssd:x:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:129::/var/lib/saned:/usr/sbin/nologin
colord:x:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
jrodriguez4:x:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
vboxadd:x:1::/var/run/vboxadd:/bin/false
_flatpak:x:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
jrodriguez4@cis106-VirtualBox:~$ cat /etc/passwd
```

Question 3

```
jrodriguez4@cis106-VirtualBox:~$ curl -s https://cis106.com/assets/tasks.txt -o tasks.txt
jrodriguez4@cis106-VirtualBox:~$ curl -s https://cis106.com/assets/shopping.txt -o shopping.txt
jrodriguez4@cis106-VirtualBox:~$ ls
allmydocs.txt    Documents        ip.txt            lab5-docs    name-of-file    practicels        Templates
allmyfiles.txt   dog.csv          lab4files         lab5-imgs    New_DIr         practicels.tar.xz usr.txt
Breed            Downloads        lab4files.zip     lab5-video   Pictures        Public            Videos
challenge-Lab6   error.log        Lab-5             lab6         pizza.txt       shopping.txt      website
cis106           githubcommands.txt lab5-audio      lab6-q5      pp_pizza.txt    snap              wildcardpractice
Desktop          ilike.txt        Lab5ChallangeQuestion  Music  practicelelele  tasks.txt
jrodriguez4@cis106-VirtualBox:~$ paste tasks.txt shopping.txt
Do laundry       Eggs
Play Bingo       Milk
Go to Work       Juice
Go to School     Carrots
Pay Bills        Potatoes
jrodriguez4@cis106-VirtualBox:~$ man paste
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ wc -l dracula.txt
15871 dracula.txt
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ wc -w  pride-and-prejudice.txt
130412 pride-and-prejudice.txt
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ sort /etc/passwd
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
games:x:5:60:games:/usr/games:/usr/sbin/nologin
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
messagebus:x:102:105::/nonexistent:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
root:x:0:0:root:/root:/bin/bash
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
syslog:x:104:111::/home/syslog:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
tcpdump:x:109:118::/nonexistent:/usr/sbin/nologin
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
uuidd:x:107:116::/run/uuidd:/usr/sbin/nologin
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
whoopsie:x:117:124::/nonexistent:/bin/false
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
```

Question 4

```
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ cat cereal.csv | tr ';' ','
name,mfr,type,calories,protein,fat,sodium,fiber,carbo,sugars,potass,vitamins,shelf,weight,cups,rating
String,Categorical,Categorical,Int,Int,Int,Int,Float,Float,Int,Int,Int,Int,Float,Float,Float
100% Bran,N,C,70,4,1,130,10,5,6,280,25,3,1,0.33,68.402973
100% Natural Bran,Q,C,120,3,5,15,2,8,8,135,0,3,1,1,33.983679
All-Bran,K,C,70,4,1,260,9,7,5,320,25,3,1,0.33,59.425505
All-Bran with Extra Fiber,K,C,50,4,0,140,14,8,0,330,25,3,1,0.5,93.704912
Almond Delight,R,C,110,2,2,200,1,14,8,-1,25,3,1,0.75,34.384843
Apple Cinnamon Cheerios,G,C,110,2,2,180,1.5,10.5,10,70,25,1,1,0.75,29.509541
Apple Jacks,K,C,110,2,0,125,1,11,14,30,25,2,1,1,33.174094
Basic 4,G,C,130,3,2,210,2,18,8,100,25,3,1.33,0.75,37.038562
Bran Chex,R,C,90,2,1,200,4,15,6,125,25,1,1,0.67,49.120253
Bran Flakes,P,C,90,3,0,210,5,13,5,190,25,3,1,0.67,53.313813
Cap'n'Crunch,Q,C,120,1,2,220,0,12,12,35,25,2,1,0.75,18.042851
Cheerios,G,C,110,6,2,290,2,17,1,105,25,1,1,1.25,50.764999
Cinnamon Toast Crunch,G,C,120,1,3,210,0,13,9,45,25,2,1,0.75,19.823573
Clusters,G,C,110,3,2,140,2,13,7,105,25,3,1,0.5,40.400208
Cocoa Puffs,G,C,110,1,1,180,0,12,13,55,25,2,1,1,22.736446
Corn Chex,R,C,110,2,0,280,0,22,3,25,25,1,1,1,41.445019
Corn Flakes,K,C,100,2,0,290,1,21,2,35,25,1,1,1,45.863324
Corn Pops,K,C,110,1,0,90,1,13,12,20,25,2,1,1,35.782791
Count Chocula,G,C,110,1,1,180,0,12,13,65,25,2,1,1,22.396513
Cracklin' Oat Bran,K,C,110,3,3,140,4,10,7,160,25,3,1,0.5,40.448772
Cream of Wheat (Quick),N,H,100,3,0,80,1,21,0,-1,0,2,1,1,64.533816
Crispix,K,C,110,2,0,220,1,21,3,30,25,3,1,1,46.895644
Crispy Wheat & Raisins,G,C,100,2,1,140,2,11,10,120,25,3,1,0.75,36.176196
Double Chex,R,C,100,2,0,190,1,18,5,80,25,3,1,0.75,44.330856
Froot Loops,K,C,110,2,1,125,1,11,13,30,25,2,1,1,32.207582
Frosted Flakes,K,C,110,1,0,200,1,14,11,25,25,1,1,0.75,31.435973
Frosted Mini-Wheats,K,C,100,3,0,0,3,14,7,100,25,2,1,0.8,58.345141
Fruit & Fibre Dates, Walnuts, and Oats,P,C,120,3,2,160,5,12,10,200,25,3,1.25,0.67,40.917047
Fruitful Bran,K,C,120,3,0,240,5,14,12,190,25,3,1.33,0.67,41.015492
Fruity Pebbles,P,C,110,1,1,135,0,13,12,25,25,2,1,0.75,28.025765
Golden Crisp,P,C,100,2,0,45,0,11,15,40,25,1,1,0.88,35.252444
Golden Grahams,G,C,110,1,1,280,0,15,9,45,25,2,1,0.75,23.804043
Grape Nuts Flakes,P,C,100,3,1,140,3,15,5,85,25,3,1,0.88,52.076897
Grape-Nuts,P,C,110,3,0,170,3,17,3,90,25,3,1,0.25,53.371007
Great Grains Pecan,P,C,120,3,3,75,3,13,4,100,25,3,1,0.33,45.811716
Honey Graham Ohs,Q,C,120,1,2,220,1,12,11,45,25,2,1,1,21.871292
Honey Nut Cheerios,G,C,110,3,1,250,1.5,11.5,10,90,25,1,1,0.75,31.072217
Honey-comb,P,C,110,1,0,180,0,14,11,35,25,1,1,1.33,28.742414
Just Right Crunchy  Nuggets,K,C,110,2,1,170,1,17,6,60,100,3,1,1,36.523683
Just Right Fruit & Nut,K,C,140,3,1,170,2,20,9,95,100,3,1.3,0.75,36.471512
Kix,G,C,110,2,1,260,0,21,3,40,25,2,1,1.5,39.241114
Life,Q,C,100,4,2,150,2,12,6,95,25,2,1,0.67,45.328074
Lucky Charms,G,C,110,2,1,180,0,12,12,55,25,2,1,1,26.734515
Maypo,A,H,100,4,1,0,0,16,3,95,25,2,1,1,54.850917
Muesli Raisins, Dates, & Almonds,R,C,150,4,3,95,3,16,11,170,25,3,1,1,37.136863
Muesli Raisins, Peaches, & Pecans,R,C,150,4,3,150,3,16,11,170,25,3,1,1,34.139765
Mueslix Crispy Blend,K,C,160,3,2,150,3,17,13,160,25,3,1.5,0.67,30.313351
Multi-Grain Cheerios,G,C,100,2,1,220,2,15,6,90,25,1,1,1,40.105965
Nut&Honey Crunch,K,C,120,2,1,190,0,15,9,40,25,2,1,0.67,29.924285
Nutri-Grain Almond-Raisin,K,C,140,3,2,220,3,21,7,130,25,3,1.33,0.67,40.692320
Nutri-grain Wheat,K,C,90,3,0,170,3,18,2,90,25,3,1,1,59.642837
Oatmeal Raisin Crisp,G,C,130,3,2,170,1.5,13.5,10,120,25,3,1.25,0.5,30.450843
Post Nat. Raisin Bran,P,C,120,3,1,200,6,11,14,260,25,3,1.33,0.67,37.840594
Product 19,K,C,100,3,0,320,1,20,3,45,100,3,1,1,41.503540
```

```
131
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ grep -n "love" ~/Documents/Books/pride-and-prejudice.txt
99:by allowance" and "loving with personal love." This distinction applies
103:to their best work than in the case of those others who are loved "by
105:proper thing to love them. And in the sect--fairly large and yet
153:All the minor passages--the loves of Jane and Bingley, the advent of Mr.
166:aversion to actual love. I do not know whether the all-grasping hand of
396:his falling in love at all is not extremely probable. Here again I
408:injured in disposition, and thoroughly in love. As for his being in
409:love, Elizabeth has given as just an exposition of the causes of that
461:anybody who can read between lines will not find the lovers'
470:ladies with whom it might be a pleasure to fall in love; there are at
474:Grant. I should have been most in love with Beatrix and Argemone; I
575:"So much love and eloquence"                                      156
756:_may_ fall in love with one of them, and therefore you must visit him as
921:persuade you at last. I was sure you loved your girls too well to
933:for your sakes we would do anything. Lydia, my love, though you _are_
972:dancing was a certain step towards falling in love; and very lively
1415:way to be very much in love; but she considered with pleasure that it
1430:very few of us who have heart enough to be really in love without
1450:in love as much as she chooses."
1657:imagination is very rapid; it jumps from admiration to love, from love
1764:Jane, make haste and tell us; make haste, my love."
2334:brother Gardiner's in town so much in love with her, that my
2341:discovered the efficacy of poetry in driving away love!"
```

```
2343: I have been used to consider poetry as the _food_ of love, said Darcy.
2345:"Of a fine, stout, healthy love it may. Everything nourishes what is
2821:be a great loss to _me_ to have many such acquaintance. I dearly love a
2986:to-day. Lydia, my love, ring the bell. I must speak to Hill this
3325:His plan did not vary on seeing them. Miss Bennet's lovely face
4705:effects of your loveliness and amiable qualifications. As I must,
4707:shall choose to attribute it to your wish of increasing my love by
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ grep -Ewn  "love|hate" pride-and-prejudice.txt
99:by allowance" and "loving with personal love." This distinction applies
105:proper thing to love them. And in the sect--fairly large and yet
166:aversion to actual love. I do not know whether the all-grasping hand of
396:his falling in love at all is not extremely probable. Here again I
408:injured in disposition, and thoroughly in love. As for his being in
409:love, Elizabeth has given as just an exposition of the causes of that
470:ladies with whom it might be a pleasure to fall in love; there are at
474:Grant. I should have been most in love with Beatrix and Argemone; I
575:"So much love and eloquence"                             156
756:_may_ fall in love with one of them, and therefore you must visit him as
933:for your sakes we would do anything. Lydia, my love, though you _are_
972:dancing was a certain step towards falling in love; and very lively
1048:"Come, Darcy," said he, "I must have you dance. I hate to see you
1415:way to be very much in love; but she considered with pleasure that it
1430:very few of us who have heart enough to be really in love without
1450:in love as much as she chooses."
1657:imagination is very rapid; it jumps from admiration to love, from love
1764:Jane, make haste and tell us; make haste, my love."
2334:brother Gardiner's in town so much in love with her, that my
2341:discovered the efficacy of poetry in driving away love!"
2343:"I have been used to consider poetry as the _food_ of love," said Darcy.
2345:"Of a fine, stout, healthy love it may. Everything nourishes what is
2821:be a great loss to _me_ to have many such acquaintance. I dearly love a
2868:"And your defect is a propensity to hate everybody."
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ grep -iw "^love" dracula.txt
love her. One, two, three, all open their veins for her, besides one old
love and pride, seen you grow up. Now I want you to make your home here
love me, and he loves me, and I love you with all the moods and tenses
love her. Oh, Madam Mina, by that love, I implore you, help me. It is
love and from the good, good wishes of those other strong men.
love Mina, I know. Oh, do something to save her. It cannot have gone too
jrodriguez4@cis106-VirtualBox:~/Documents/Books$
```

```
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ grep -E "^[A-Z]|^[0-9]" dracula.txt
This eBook is for the use of anyone anywhere in the United States and
Title: Dracula
Author: Bram Stoker
Release Date: October, 1995 [eBook #345]
Language: English
Character set encoding: UTF-8
Produced by: Chuck Greif and the Online Distributed Proofreading Team
Contents
CHAPTER I. Jonathan Harker's Journal
CHAPTER II. Jonathan Harker's Journal
CHAPTER III. Jonathan Harker's Journal
CHAPTER IV. Jonathan Harker's Journal
CHAPTER V. Letters—Lucy and Mina
CHAPTER VI. Mina Murray's Journal
CHAPTER VII. Cutting from "The Dailygraph," 8 August
CHAPTER VIII. Mina Murray's Journal
CHAPTER IX. Mina Murray's Journal
CHAPTER X. Mina Murray's Journal
CHAPTER XI. Lucy Westenra's Diary
CHAPTER XII. Dr. Seward's Diary
CHAPTER XIII. Dr. Seward's Diary
CHAPTER XIV. Mina Harker's Journal
CHAPTER XV. Dr. Seward's Diary
CHAPTER XVI. Dr. Seward's Diary
CHAPTER XVII. Dr. Seward's Diary
CHAPTER XVIII. Dr. Seward's Diary
CHAPTER XIX. Jonathan Harker's Journal
CHAPTER XX. Jonathan Harker's Journal
CHAPTER XXI. Dr. Seward's Diary
CHAPTER XXII. Jonathan Harker's Journal
CHAPTER XXIII. Dr. Seward's Diary
```

Question 5

```
Ford Ranger US
Chevy S-10 US
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ awk -F ';' '{print $1,$NF}' ~/Documents/Csv/cars.csv
```

```
Chevy S-10   made in US
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ awk -F ';' '{print $1,"made in " $NF}' ~/Documents/Csv/cars.csv
Car made in Origin
STRING made in CAT
Chevrolet Chevelle Malibu made in US
Buick Skylark 320 made in US
Plymouth Satellite made in US
AMC Rebel SST made in US
Ford Torino made in US
Ford Galaxie 500 made in US
Chevrolet Impala made in US
Plymouth Fury iii made in US
Pontiac Catalina made in US
AMC Ambassador DPL made in US
Citroen DS-21 Pallas made in Europe
Chevrolet Chevelle Concours (sw) made in US
Ford Torino (sw) made in US
Plymouth Satellite (sw) made in US
AMC Rebel SST (sw) made in US
Dodge Challenger SE made in US
Plymouth 'Cuda 340 made in US
Ford Mustang Boss 302 made in US
Chevrolet Monte Carlo made in US
```

```
The Honda Civic 38.0 has 4 cylinders and is made in Japan
The Honda Civic (auto) 32.0 has 4 cylinders and is made in Japan
The Datsun 310 GX 38.0 has 4 cylinders and is made in Japan
The Buick Century Limited 25.0 has 6 cylinders and is made in US
The Oldsmobile Cutlass Ciera (diesel) 38.0 has 6 cylinders and is made in US
The Chrysler Lebaron Medallion 26.0 has 4 cylinders and is made in US
The Ford Grenada l 22.0 has 6 cylinders and is made in US
The Toyota Celica GT 32.0 has 4 cylinders and is made in Japan
The Dodge Charger 2.2 36.0 has 4 cylinders and is made in US
The Chevrolet Camaro 27.0 has 4 cylinders and is made in US
The Ford Mustang GL 27.0 has 4 cylinders and is made in US
The Volkswagen Pickup 44.0 has 4 cylinders and is made in Europe
The Dodge Rampage 32.0 has 4 cylinders and is made in US
The Ford Ranger 28.0 has 4 cylinders and is made in US
The Chevy S-10 31.0 has 4 cylinders and is made in US
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ awk -F ';' '{print "The",$1,$2,"has",$3, "cylinders and is made in", $NF}' ~/Documents/Csv/cars.csv
```

```
rodriguez4@cis106-VirtualBox:~$ awk 'NR > 3 { print }' ~/Documents/Csv/cars.csv
ick Skylark 320;15.0;8;350.0;165.0;3693.;11.5;70;US
ymouth Satellite;18.0;8;318.0;150.0;3436.;11.0;70;US
MC Rebel SST;16.0;8;304.0;150.0;3433.;12.0;70;US
ord Torino;17.0;8;302.0;140.0;3449.;10.5;70;US
ord Galaxie 500;15.0;8;429.0;198.0;4341.;10.0;70;US
hevrolet Impala;14.0;8;454.0;220.0;4354.;9.0;70;US
ymouth Fury iii;14.0;8;440.0;215.0;4312.;8.5;70;US
ontiac Catalina;14.0;8;455.0;225.0;4425.;10.0;70;US
MC Ambassador DPL;15.0;8;390.0;190.0;3850.;8.5;70;US
itroen DS-21 Pallas;0;4;133.0;115.0;3090.;17.5;70;Europe
hevrolet Chevelle Concours (sw);0;8;350.0;165.0;4142.;11.5;70;US
ord Torino (sw);0;8;351.0;153.0;4034.;11.0;70;US
ymouth Satellite (sw);0;8;383.0;175.0;4166.;10.5;70;US
MC Rebel SST (sw);0;8;360.0;175.0;3850.;11.0;70;US
odge Challenger SE;15.0;8;383.0;170.0;3563.;10.0;70;US
ymouth 'Cuda 340;14.0;8;340.0;160.0;3609.;8.0;70;US
```

```
jrodriguez4@cis106-VirtualBox:~$ awk -F ';' '{print toupper($1)}' ~/Documents/Csv/cars.csv
CAR
STRING
CHEVROLET CHEVELLE MALIBU
BUICK SKYLARK 320
PLYMOUTH SATELLITE
AMC REBEL SST
FORD TORINO
FORD GALAXIE 500
CHEVROLET IMPALA
PLYMOUTH FURY III
PONTIAC CATALINA
AMC AMBASSADOR DPL
CITROEN DS-21 PALLAS
CHEVROLET CHEVELLE CONCOURS (SW)
FORD TORINO (SW)
PLYMOUTH SATELLITE (SW)
AMC REBEL SST (SW)
DODGE CHALLENGER SE
PLYMOUTH 'CUDA 340
FORD MUSTANG BOSS 302
CHEVROLET MONTE CARLO
BUICK ESTATE WAGON (SW)
```

```
be to our email newsletter to hear about new eBooks.


ez4@cis106-VirtualBox:~/Documents/Books$ sed 's/dracula/alucard/g' dracula.txt
```

```
jrodriguez4:x:1000:1000:Jonathan Rodriguez,,,:/home/jrodriguez4:/bin/bash

vboxadd:x:999:1::/var/run/vboxadd:/bin/false

_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/no

jrodriguez4@cis106-VirtualBox:~/Documents/Books$ sed G /etc/passwd
```

```
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including how to make donations to the Project Gutenberg Literary
Archive Foundation, how to help produce our new eBooks, and how to
subscribe to our email newsletter to hear about new eBooks.
jrodriguez4@cis106-VirtualBox:~/Documents/Books$ sed '/^$/d;G' pride-and-prejudice.txt
```

Question 6

```
jrodriguez4@cis106-VirtualBox:~$ grep "/bin/bash" /etc/passwd | wc -l
2
jrodriguez4@cis106-VirtualBox:~$
```

```
jrodriguez4@cis106-VirtualBox:~$ grep "/sbin/nologin" /etc/passwd | wc -l
40
jrodriguez4@cis106-VirtualBox:~$
```

```
jrodriguez4@cis106-VirtualBox:~$ grep -i "ford" ~/Documents/Csv/cars.csv | wc -l
53
jrodriguez4@cis106-VirtualBox:~$
```

```
jrodriguez4@cis106-VirtualBox:~$ grep  " .... " ~/Documents/Books/bible.txt | wc -l
29713
jrodriguez4@cis106-VirtualBox:~$
```

Question 7

```
jrodriguez4@cis106-VirtualBox:~$ cd Documents/Csv/
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ awk -F ';' 'NR > 3 {print$1}' cereal.csv
100% Natural Bran
All-Bran
All-Bran with Extra Fiber
Almond Delight
Apple Cinnamon Cheerios
Apple Jacks
Basic 4                                    14 / 14
Bran Chex
Bran Flakes
Cap'n'Crunch
Cheerios
Cinnamon Toast Crunch
Clusters
Cocoa Puffs
Corn Chex
Corn Flakes
Corn Pops
Count Chocula
Cracklin' Oat Bran
```

```
Wheaties Honey Gold 110
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ awk -F ';' 'NR > 3 {print$1}' cereal.csv | sort
```

```
Wheaties Honey Gold 110
jrodriguez4@cis106-VirtualBox:~/Documents/Csv$ awk -F ';' 'NR > 3 {print$1,$4}' cereal.csv
```

```
Wheaties , 100
jrodriguez4@cis106-VirtualBox:~$ awk -F ';' 'NR > 3 {print $1,",",$4}' ~/Documents/Csv/cereal.csv
```