

Lab 7 Submission

Question 1

```


acastillo28530@Cis106: $ cat /etc/passwd
root:x:0:0:root:/bin/bash
daemon:x:1:1:daemon:/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:system 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:106:112:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:115:/:/run/uuidd:/usr/sbin/nologin
systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:117:/:/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/sssd:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
nm-openvpn:x:120:126:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:121:128:/:/var/lib/saned:/usr/sbin/nologin
colord:x:122:129:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:123:130:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:124:131:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
anome-initial-setup:x:125:65534:/:/run/gnome-initial-setup/:/bin/false

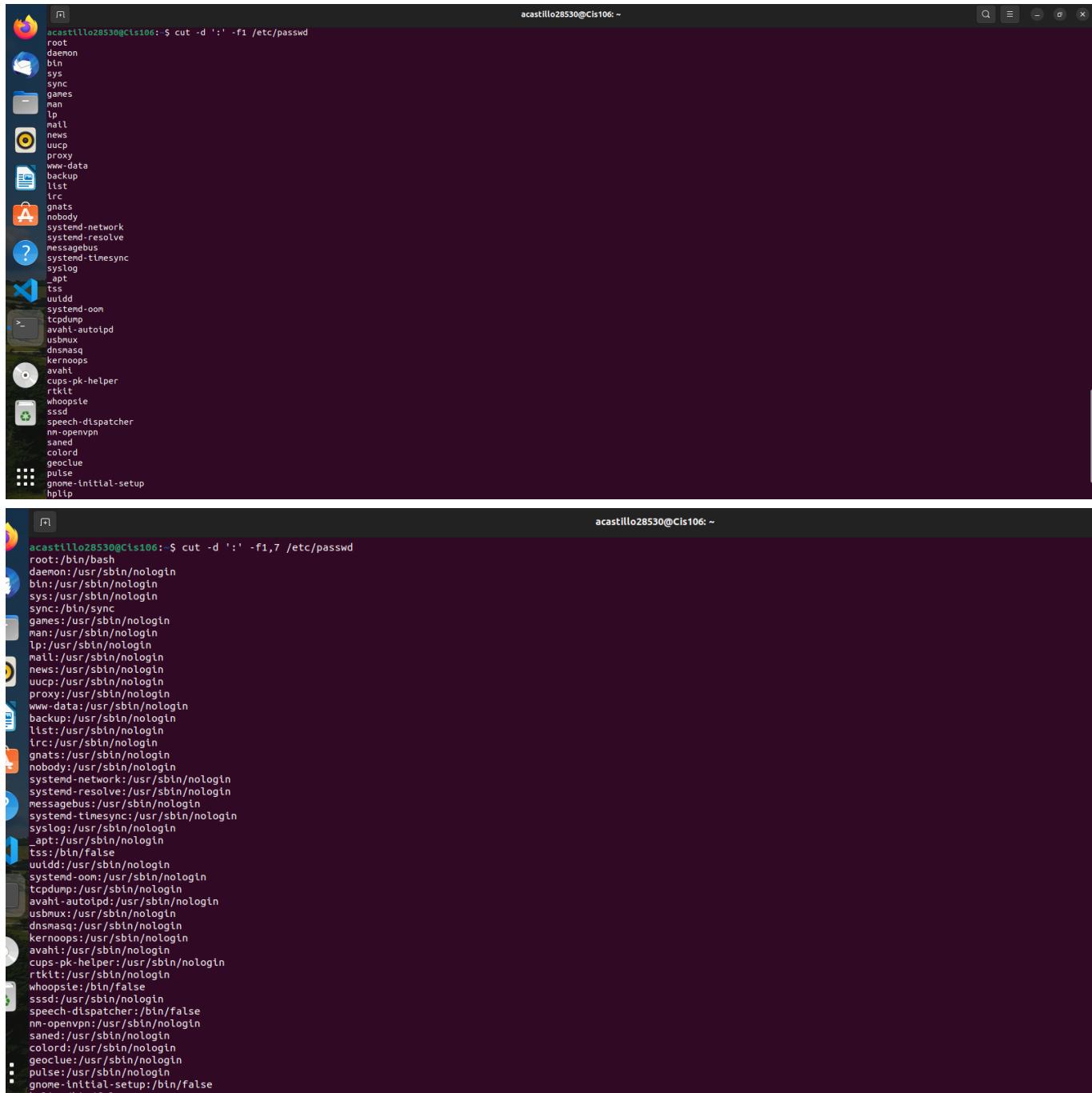
acastillo28530@Cis106: $ tac /etc/passwd
sshd:x:129:65534:/:/run/sshd:/usr/sbin/nologin
_flatpak:x:128:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
vboxadd:x:999:1:/:/var/run/vboxadd:/bin/false
acastillo28530:x:1000:1000:Angelo,,,:/home/acastillo28530:/bin/bash
gdm:x:127:133:Gnome Display Manager:/var/lib/gdm3:/bin/false
hplip:x:126:7:HPLIP system user,,,:/run/hplip:/bin/false
gnome-initial-setup:x:125:65534:/:/run/gnome-initial-setup/:/bin/false
pulse:x:124:131:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
geoclue:x:123:130:/:/var/lib/geoclue:/usr/sbin/nologin
colord:x:122:129:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
saned:x:121:128:/:/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:120:126:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sssd:/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:KernelOops 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:109:117:/:/nonexistent:/usr/sbin/nologin
systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
uuidd:x:107:115:/:/run/uuidd:/usr/sbin/nologin
tss:x:106:112: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:system 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

```

The screenshot shows two terminal sessions. The top session, titled 'acastillo28530@Cis106 ~', displays the contents of the file '/etc/passwd'. It lists numerous system accounts, each consisting of a user ID (UID), group ID (GID), username, home directory, and command shell. Many accounts have '/usr/sbin/nologin' as their shell. The bottom session, also titled 'acastillo28530@Cis106 ~', shows the first five lines of the file '/etc/passwd' using the 'head -5' command. This output includes the root account and several other standard system users like daemon, bin, sys, sync, and others.

```
acastillo28530@Cis106:~$ 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  sync:x:3:3:sync:/bin:/bin/sync$
 5  games:x:5:60:games:/usr/games:/usr/sbin/nologin$
 6  man:x:6:12:man:/var/cache/man:/usr/sbin/nologin$
 7  lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin$
 8  mail:x:8:8:mail:/var/mail:/usr/sbin/nologin$
 9  news:x:9:9:news:/var/spool/news:/usr/sbin/nologin$
10  uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin$
11  proxy:x:13:13:proxy:/bin:/usr/sbin/nologin$
12  www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin$
13  backup:x:34:34:backup:/var/backups:/usr/sbin/nologin$
14  list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin$
15  irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin$
16  gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin$
17  nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologins
18  systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin$
19  systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin$
20  messagebus:x:102:105::/nonexistent:/usr/sbin/nologin$
21  systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin$
22  syslog:x:104:111:/home/syslog:/usr/sbin/nologin$
23  _apt:x:105:65534::/nonexistent:/usr/sbin/nologin$
24  tss:x:106:112:TPM software stack,,,:/var/lib/tpm:/bin/false$
25  uidd:x:107:115::/run/uidd:/usr/sbin/nologin$
26  systemd-oon:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin$
27  tcpdump:x:109:117::/nonexistent:/usr/sbin/nologin$
28  avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin$
29  usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin$
30  dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin$
31  kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin$
32  avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin$
33  cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin$
34  rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin$
35  whoopsie:x:117:124::/nonexistent:/bin/false$
36  sssd:x:118:125:sssd system user,,,:/var/lib/sssd:/usr/sbin/nologin$
37  speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false$
38  nm-openvpn:x:120:126:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin$
39  saned:x:121:128::/var/lib/saned:/usr/sbin/nologin$
40  colord:x:122:129:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin$
41  geoclue:x:123:130::/var/lib/geoclue:/usr/sbin/nologin$
42  pulse:x:124:131:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin$
43  gnome-initial-setup:x:125:65534::/run/gnome-initial-setup/:/bin/false$
44  hpolo:x:126:7:HPLIP system user,,,:/run/hpolo:/bin/false$
45  acastillo28530@Cis106:~$ 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
acastillo28530@Cis106:~$ tail -5 /etc/passwd
gdm:x:127:133:Gnome Display Manager:/var/lib/gdm3:/bin/false
acastillo28530:x:1000:1000:Angelo,,,:/home/acastillo28530:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:128:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
sshd:x:129:65534::/run/sshd:/usr/sbin/nologin
acastillo28530@Cis106:~$
```

Question 2



acastillo28530@Cis106:~

```
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
lrc
gnats
nobody
systemd-network
systemd-resolve
messagebus
systemd-timesync
syslog
_apt
tss
uidd
systemd-oom
tcpdump
avahi-autoipd
usbmux
dnsmasq
kernoops
avahi
cups-pk-helper
rtkit
whoopsie
sssd
speech-dispatcher
nm-openvpn
saned
colord
geoclue
pulse
gnome-initial-setup
hplip
```

acastillo28530@Cis106:~

```
root:/bin/bash
daemon:/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
uidd:/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
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
```

```
acastillo28530@Cis106:~$ 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
uidd > /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
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
```

```
acastillo28530@Cis106:~$ cut -d ':' -f1,2,4,5,6,7 /etc/passwd
root:x:0:root:/bin/bash
daemon:x:1:daemon:/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:system Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:111:/home/syslog:/usr/sbin/nologin
_apt:x:65534::/nonexistent:/usr/sbin/nologin
tss:x:112:TPM software stack,,,:/var/lib/tpm:/bin/false
uidd:x:115::/run/uidd:/usr/sbin/nologin
systemd-oom:x:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:117::/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/sssd:/usr/sbin/nologin
speech-dispatcher:x:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
nm-openvpn:x:126:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:128::/var/lib/saned:/usr/sbin/nologin
colord:x:129:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:130:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:131: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
```

Question 3

```
#castillo28530@cls106: ~ curl -s https://cls106.com/assets/tasks.txt -o task-to-complete
Do laundry
Play Bingo
Go to Work
Go to School
Pay Bills #castillo28530@cls106: ~ curl -s https://cls106.com/assets/shopping.txt -o shopping-list
#castillo28530@cls106: ~ curl -s https://cls106.com/assets/shopping.txt -o shopping-list
#castillo28530@cls106: ~ $ paste task-to-complete shopping-list
Do laundry      Eggs
Play Bingo      Milk
Go to Work       Juice
Go to School    Carrots
Pay Bills        Potatoes
#castillo28530@cls106: ~ wc -l ~/Documents/Books/dracula.txt
15860 /home/acastillo28530/Documents/Books/dracula.txt
#castillo28530@cls106: ~ wc -w ~/Documents/Books/pride-and-prejudice.txt
130408 /home/acastillo28530/Documents/Books/pride-and-prejudice.txt
#castillo28530@cls106: ~ sort /etc/passwd
acastillo28530:x:1000:1000:Angelo,,,:/home/acastillo28530:/bin/bash
_apt:x:105:65534::/none/!x:!/usr/sbin/nologin
avahi-autopid:x:110:119:Avahi autoipd daemon,,,:/var/lib/avahi-autopd:/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:122:129:Color 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/msc:/usr/sbin/nologin
flatpak:x:128:137:flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
games:x:5:60:games:/usr/games:/usr/sbin/nologin
gdm:x:127:133:GNOME Display Manager:/var/lib/gdm3:/bin/false
geoclue:x:123:138:/:/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:125:65534:/:/run/gnome-initial-setup/:/bin/false
nplip:x:126:7:HPLIP system user,,,:/run/hplip:/bin/false
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
kernooops: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:19:9:news:/var/spool/news:/usr/sbin/nologin
nn-openvpn:x:120:126:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
```

Question 4

```
acastillo28530@Clis106: ~/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,Float,Float,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,120,3,5,15,2,8,8,135,8,3,1,1,33,383679
All-Bran,K,C,70,4,1,260,9,7,5,320,25,3,1,0,33,59,425569
All-Bran with Extra Fiber,C,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,110,2,0,125,1,11,14,30,25,2,1,1,33,174694
Basic 4,0,C,130,3,2,210,2,18,8,100,25,3,1,33,0,75,37,038562
Bran Chex,R,C,98,2,1,200,4,15,6,125,25,1,1,0,67,49,120253
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,110,6,2,290,2,17,1,105,25,1,1,1,25,50,704999
Cinnamon Toast Crunch,G,C,120,1,3,210,0,13,9,45,25,2,1,0,75,19,823573
Clusters,G,C,110,3,2,140,2,13,7,105,25,3,1,0,5,40,400288
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,100,2,0,190,1,18,5,80,25,3,1,0,75,44,338856
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,100,3,0,3,14,7,100,25,2,1,0,8,58,345141
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,110,1,1,280,6,15,9,45,25,2,1,0,75,23,804043
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,120,3,3,75,3,13,4,100,25,3,1,0,33,45,011716
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
Honeycomb,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,140,3,1,170,2,26,9,95,100,3,1,3,0,75,36,471512
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
```

```
acastillo28530@Clis106: ~/Documents/Books$ grep "love" pride-and-prejudice.txt
by allowance" and "loving with personal love." This distinction applies
to their best work than in the case of those others who are loved "by
proper thing to love them. And in the next, fairly large and yet
All the minor passages--the loves of Jane and Bingley, the advent of Mr.
aversion to actual love. I do not know whether the all-grasping hand of
his falling in love at all is not extremely probable. Here again I
injured in disposition, and thoroughly in love. As for his being in
love, Elizabeth has given as just an exposition of the causes of that
anybody who can read between lines will not find the lovers'
ladies with whom it might be a pleasure to fall in love; there are at
Grant. I should have been most in love with Beatrix and Argemone; I
"so much love and eloquence" 156
_may fall in love with one of them, and therefore you must visit him as
persuade you at last. I was sure you loved your girls too well to
for your sakes we would do anything. Lydia, my love, though you _are_
dancing was a certain step towards falling in love; and very lively
way to be very much in love; but she considered with pleasure that it
very few of us who have heart enough to be really in love without
in love as much as she chooses."
imagination is very rapid; it jumps from admiration to love, from love
Jane, make haste and tell us; make haste, my love."
brother Gardiner's in town so much in love with her, that my
discovered the efficacy of poetry in driving away love!"
"I have been used to consider poetry as the food of love," said Darcy.
"Of a fine, stout, healthy love it may. Everything nourishes what is
be a great loss to me to have many such acquaintance. I dearly love a
to-day. Lydia, my love, ring the bell. I must speak to Hill this
His plan did not vary on seeing them. Miss Bennet's lovely face
effects of your loveliness and amiable qualifications. As I must,
shall choose to attribute it to your wish of increasing my love by
successful love; for Mrs. Bennet, having dawdled about in the vestibule
in love with you and wants him to marry Miss Darcy. She follows him to
is not such a simpleton. Could she have seen half as much love in Mr.
of being in love with you, he is very much in love with her friend."
she dared to hope that so much love and eloquence awaited her there.

"so much love and eloquence"
publish his prosperous love
The possibility of Mr. Collins's fancying himself in love with her
while her health was so indifferent, and lovers were of all people the
dishonourable to the stability of her lover, she could not prevent its
and, luckily for the others, the business of love-making relieved them
you. I feel as if I had never done you justice, or loved you as you
whom I really love, and still fewer of whom I think well. The more I see
known her much longer than they have known me; no wonder if they love
day, "your sister is crossed in love, I find. I congratulate her. Next
```

```
acastillo28530@Cis106:~/Documents/Book$ grep -E "love|hate" pride-and-prejudice.txt
by allowance" and "loving with personal love." This distinction applies
to their best work than in the case of those others who are loved "by
proper thing to love them. And in the sect--fairly large and yet
All the minor passages--the loves of Jane and Bingley, the advent of Mr.
aversion to actual love. I do not know whether the all-grasping hand of
his falling in love at all is not extremely probable. Here again I
injured in disposition, and thoroughly in love. As for his being in
love, Elizabeth has given as just an exposition of the causes of that
anybody who can read between lines will not find the lovers'
ladies with whom it might be a pleasure to fall in love; there are at
Grant. I should have been most in love with Beatrix and Argemone; I
"So much love and eloquence" 156
_may_ fall in love with one of them, and therefore you must visit him as
persuade you at last. I was sure you loved your girls too well to
for your sakes we would do anything. Lydia, my love, though you _are_
dancing was a certain step towards falling in love; and very lively
"Come, Darcy," said he, "I must have you dance. I hate to see you
way to very much in love; but she considered with pleasure that it
very few of us who have heart enough to be really in love without
in love as much as she chooses."
imagination is very rapid; it jumps from admiration to love, from love
Jane, make haste and tell us; make haste, my love."
"To walk three miles, or four miles, or five miles, or whatever it is,
to employ for captivation. Whatever bears affinity to cunning is
"Whatever I do is done in a hurry," replied he; "and therefore if I
brother Gardiner's in town so much in love with her, that my
discovered the efficacy of poetry in driving away love!"
"I have been used to consider poetry as the _food_ of love," said Darcy.
"Of a fine, stout, healthy love it may. Everything nourishes what is
thankful; and then you may say whatever you like of me."
be a great loss to me to have many such acquaintance. I dearly love a
"And your defect is a propensity to hate everybody."
to-day. Lydia, my love, ring the bell. I must speak to Hill this
him to write to you at all, and very hypocritical. I hate such false
His plan did not vary on seeing them. Miss Bennet's lovely face
different sort of men, and that he hates me."
everybody. Whatever he said, was said well; and whatever he did, done
throw into the account of accident or mistake whatever could not be
scruple whatever on that head, and was very far from dreading a rebuke,
a man agreeable whom one is determined to hate! Do not wish me such an
He smiled, and assured her that whatever she wished him to say should be
effects of your loveliness and amiable qualifications. As I must,
shall choose to attribute it to your wish of increasing my love by
"I do assure you, sir, that I have no pretensions whatever to that kind
successful love; for Mrs. Bennet, having dawdled about in the vestibule
```

```
acastillo28530@Cis106:~/Documents/Book$ grep "Love" dracula.txt
know her is to love her. I long to go through the crowded streets of
also that there is a chapel of old times. We Transylvanian nobles love
battlements and casements. I love the shade and the shadow, and would
thought and many blushes, her ill-spelt love-letter, and writing in my
at the lovely view to east and south, and unthinking of and uncaring for
"You yourself never loved; you never love!" On this the other women
"Yes, I too can love; you yourselves can tell it from the past. I'll
it to speak more. Oh, Mina, couldn't you guess? I love him. I am blushing
as I write, for although I think he loves me, he has not told me so in
words. But oh, Mina, I love him; I love him; I love him! There, that
I could love him in time; and when I shook my head his hands trembled,
loves you honestly, going away and looking all broken-hearted, and to
what I would do if I were a man and wanted to make a girl love me. No, I
began pouring out a perfect torrent of love-making, laying his very
manly fervour that I could have loved him for if I had been free:--
"Yes, there is some one I love, though he has not told me yet that he
even loves me.' I was right to speak to him so frankly, for quite a
lover; it's more unselfish anyhow. My dear, I'm going to have a pretty
my dear, and a fine fellow, or you could not love him--hasn't spoken
lover, such a husband, and such a friend.
loverlier than ever, and we drove up to the house at the Crescent in
which they have rooms. This is a lovely place. The little river, the
She is so sweet with old people; I think they all fell in love with her
beloved son. 'He was the only son of his mother, and she was a widow.'
but what it is I do not yet know. His redeeming quality is a love of
her looks; she is a trifle stout, and her cheeks are a lovely
own heart a bit. But, Lord love ye, miss, I ain't afraid of dyin', not a
again. We had a lovely view, and saw the procession nearly all the way.
had made my diary a duty I should not open it to-night. We had a lovely
looks, oh, so sweet. If Mr. Holwood fell in love with her seeing her
to have become as much in love with the spot as I am, and it is hard to
habit--says he loves; and, indeed, I don't wonder that he does. Then she
suffering from a violent brain fever. He wishes me to convey his love''
poor dear should have fallen in love with any other girl. The idea of'
except myself, my life, and my trust, and that with these went my love
"Oceans of love and millions of kisses, and may you soon be in your own
together; and I love him more than ever. He tells me that he loves me
more, but I doubt that, for at first he told me that he couldn't love me
"P. S.--Mother sends her love. She seems better, poor dear. "P. P. "
much beloved. That is much, my dear, ever were there that which I do not
back to happiness, and to those that love them. It is much to do, and,
"Have you said anything to our young friend the lover of her?
"Sir, you have come in time. You are the lover of our dear miss. She is
that you have done all for her you love. Come now and be silent. You
```

```
acastillo28530@Cis106:~/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
CHAPTER XXIV. Dr. Seward's Phonograph Diary, spoken by Van Helsing
CHAPTER XXV. Dr. Seward's Diary
CHAPTER XXVI. Dr. Seward's Diary
CHAPTER XXVII. Mina Harker's Journal
DRACULA
CHAPTER I
JONATHAN HARKER'S JOURNAL
Vienna early next morning; should have arrived at 6:46, but train was an
East; the most western of splendid bridges over the Danube, which is
we left in pretty good time, and came after nightfall to Klausenburgh
```

Question 5

```
acastillo28530@cis106:~/Documents/Books$ cd  
acastillo28530@cis106:~$ cd ~/Documents/Csv  
acastillo28530@cis106:~/Documents/Csv$ awk -F ';' '{print $1,$NF}' cars.csv  
Car Origin  
STRING CAT  
Chevrolet Chevelle Malibu US  
Buick Skylark 320 US  
Plymouth Satellite US  
AMC Rebel SST US  
Ford Torino US  
Ford Galaxie 500 US  
Chevrolet Impala US  
Plymouth Fury iii US  
Pontiac Catalina US  
AMC Ambassador DPL US  
Citroen DS-21 Pallas Europe  
Chevrolet Chevelle Concours (sw) US  
Ford Torino (sw) US  
Plymouth Satellite (sw) US  
AMC Rebel SST (sw) US  
Dodge Challenger SE US  
Plymouth 'Cuda 340 US  
Ford Mustang Boss 302 US  
Chevrolet Monte Carlo US  
Buick Estate Wagon (sw) US  
Toyota Corolla Mark ii Japan  
Plymouth Duster US  
AMC Hornet US  
Ford Maverick US  
Datsun PL510 Japan  
Volkswagen 1131 Deluxe Sedan Europe  
Peugeot 504 Europe  
Audi 100 LS Europe  
Saab 99e Europe  
BMW 2002 Europe  
AMC Gremlin US  
Ford F250 US  
Chevy C20 US  
Dodge D200 US  
Hi 1200D US  
Datsun PL510 Japan  
Chevrolet Vega 2300 US  
Toyota Corolla Japan  
Ford Pinto US  
Volkswagen Super Beetle 117 Europe
```

```
acastillo28530@cis106:~/Documents/Csv$ awk -F ';' '{OFS=" made in "} {print $1,$NF}' 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  
Buick Estate Wagon (sw) made in US  
Toyota Corolla Mark ii made in Japan  
Plymouth Duster made in US  
AMC Hornet made in US  
Ford Maverick made in US  
Datsun PL510 made in Japan  
Volkswagen 1131 Deluxe Sedan made in Europe  
Peugeot 504 made in Europe  
Audi 100 LS made in Europe  
Saab 99e made in Europe  
BMW 2002 made in Europe  
AMC Gremlin made in US  
Ford F250 made in US  
Chevy C20 made in US  
Dodge D200 made in US  
Hi 1200D made in US  
Datsun PL510 made in Japan  
Chevrolet Vega 2300 made in US  
Toyota Corolla made in Japan  
Ford Pinto made in US
```

Volkswagen Super Beetle 117 made in Europe

AMC Gremlin made in US

Plymouth Satellite Custom made in US

```
acastillo28530@Cis106:~/Documents/Csv$ awk -F';' '{print "The",$1,"has",$3,"cylinders" , "and is made in",$NF}' cars.csv
The Car has Cylinders cylinders and is made in Origin
The STRING has INT cylinders and is made in CAT
The Chevrolet Chevelle Malibu has 8 cylinders and is made in US
The Buick Skylark 320 has 8 cylinders and is made in US
The Plymouth Satellite has 8 cylinders and is made in US
The AMC Rebel SST has 8 cylinders and is made in US
The Ford Torino has 8 cylinders and is made in US
The Ford Galaxie 500 has 8 cylinders and is made in US
The Chevrolet Impala has 8 cylinders and is made in US
The Plymouth Fury iii has 8 cylinders and is made in US
The Pontiac Catalina has 8 cylinders and is made in US
The AMC Ambassador DPL has 8 cylinders and is made in US
The Citroen DS-21 Pallas has 4 cylinders and is made in Europe
The Chevrolet Chevelle Concours (sw) has 8 cylinders and is made in US
The Ford Torino (sw) has 8 cylinders and is made in US
The Plymouth Satellite (sw) has 8 cylinders and is made in US
The AMC Rebel SST (sw) has 8 cylinders and is made in US
The Dodge Challenger SE has 8 cylinders and is made in US
The Plymouth 'cuda 340 has 8 cylinders and is made in US
The Ford Mustang Boss 302 has 8 cylinders and is made in US
The Chevrolet Monte Carlo has 8 cylinders and is made in US
The Buick Estate Wagon (sw) has 8 cylinders and is made in US
The Toyota Corolla Mark ii has 4 cylinders and is made in Japan
The Plymouth Duster has 6 cylinders and is made in US
The AMC Hornet has 6 cylinders and is made in US
The Ford Maverick has 6 cylinders and is made in US
The Datsun PL510 has 4 cylinders and is made in Japan
The Volkswagen 1131 Deluxe Sedan has 4 cylinders and is made in Europe
The Peugeot 504 has 4 cylinders and is made in Europe
The Audi 100 LS has 4 cylinders and is made in Europe
The Saab 99e has 4 cylinders and is made in Europe
The BMW 2002 has 4 cylinders and is made in Europe
The AMC Gremlin has 6 cylinders and is made in US
The Ford F250 has 8 cylinders and is made in US
The Chevy C20 has 8 cylinders and is made in US
The Dodge D200 has 8 cylinders and is made in US
The H1 1200D has 8 cylinders and is made in US
The Datsun PL510 has 4 cylinders and is made in Japan
The Chevrolet Vega 2300 has 4 cylinders and is made in US
The Toyota Corolla has 4 cylinders and is made in Japan
The Ford Pinto has 4 cylinders and is made in US
The Volkswagen Super Beetle 117 has 4 cylinders and is made in Europe
The AMC Gremlin has 6 cylinders and is made in US
The Plymouth Satellite Custom has 6 cylinders and is made in US
The Chevrolet Chevelle Malibu has 6 cylinders and is made in US
```

```
acastillo28530@Cis106:~/Documents/Csv$ awk -F';' ' NR > 3 {print "The",$1,"has",$3,"cylinders" , "and is made in",$NF}' cars.csv
The Buick Skylark 320 has 8 cylinders and is made in US
The Plymouth Satellite has 8 cylinders and is made in US
The AMC Rebel SST has 8 cylinders and is made in US
The Ford Torino has 8 cylinders and is made in US
The Ford Galaxie 500 has 8 cylinders and is made in US
The Chevrolet Impala has 8 cylinders and is made in US
The Plymouth Fury iii has 8 cylinders and is made in US
The Pontiac Catalina has 8 cylinders and is made in US
The AMC Ambassador DPL has 8 cylinders and is made in US
The Citroen DS-21 Pallas has 4 cylinders and is made in Europe
The Chevrolet Chevelle Concours (sw) has 8 cylinders and is made in US
The Ford Torino (sw) has 8 cylinders and is made in US
The Plymouth Satellite (sw) has 8 cylinders and is made in US
The AMC Rebel SST (sw) has 8 cylinders and is made in US
The Dodge Challenger SE has 8 cylinders and is made in US
The Plymouth 'cuda 340 has 8 cylinders and is made in US
The Ford Mustang Boss 302 has 8 cylinders and is made in US
The Chevrolet Monte Carlo has 8 cylinders and is made in US
The Buick Estate Wagon (sw) has 8 cylinders and is made in US
The Toyota Corolla Mark ii has 4 cylinders and is made in Japan
The Plymouth Duster has 6 cylinders and is made in US
The AMC Hornet has 6 cylinders and is made in US
The Ford Maverick has 6 cylinders and is made in US
The Datsun PL510 has 4 cylinders and is made in Japan
The Volkswagen 1131 Deluxe Sedan has 4 cylinders and is made in Europe
The Peugeot 504 has 4 cylinders and is made in Europe
The Audi 100 LS has 4 cylinders and is made in Europe
The Saab 99e has 4 cylinders and is made in Europe
The BMW 2002 has 4 cylinders and is made in Europe
The AMC Gremlin has 6 cylinders and is made in US
The Ford F250 has 8 cylinders and is made in US
The Chevy C20 has 8 cylinders and is made in US
The Dodge D200 has 8 cylinders and is made in US
The H1 1200D has 8 cylinders and is made in US
The Datsun PL510 has 4 cylinders and is made in Japan
The Chevrolet Vega 2300 has 4 cylinders and is made in US
The Toyota Corolla has 4 cylinders and is made in Japan
The Ford Pinto has 4 cylinders and is made in US
The Volkswagen Super Beetle 117 has 4 cylinders and is made in Europe
The AMC Gremlin has 6 cylinders and is made in US
The Plymouth Satellite Custom has 6 cylinders and is made in US
The Chevrolet Chevelle Malibu has 6 cylinders and is made in US
The Ford Torino 500 has 6 cylinders and is made in US
The AMC Matador has 6 cylinders and is made in US
```

```

acastillo28530@Cis106:~/Documents/csv$ awk -F ',' '{print toupper($1)}' cars.csv
CAR;MPG;CYLINDERS;DISPLACEMENT;HORSEPOWER;WEIGHT;ACCELERATION;MODEL;ORIGIN
STRING;DOUBLE;INT;DOUBLE;DOUBLE;DOUBLE;INT;CAT
CHEVROLET CHEVELLE MALIBU;18.0;8;307.0;130.0;3504.;12.0;70;US
BUICK SKYLARK 320;15.0;8;350.0;165.0;3693.;11.5;70;US
PLYMOUTH SATELLITE;18.0;8;318.0;150.0;3436.;11.0;70;US
AMC REBEL SST;16.0;8;304.0;150.0;3433.;12.0;70;US
FORD TORINO;17.0;8;302.0;140.0;3449.;10.5;70;US
FORD GALAXIE 500;15.0;8;429.0;198.0;4341.;10.0;70;US
CHEVROLET IMPALA;14.0;8;454.0;220.0;4354.;9.0;70;US
PLYMOUTH FURY III;14.0;8;440.0;215.0;4312.;8.5;70;US
PONTIAC CATALINA;14.0;8;455.0;225.0;4425.;10.0;70;US
AMC AMBASSADOR DPL;15.0;8;390.0;190.0;3850.;8.5;70;US
CITROEN DS-21 PALLAS;0;4;133.0;115.0;3090.;17.5;70;EUROPE
CHEVROLET CHEVELLE CONCOURS (SW);0;8;350.0;165.0;4142.;11.5;70;US
FORD TORINO (SW);0;8;351.0;153.0;4034.;11.0;70;US
PLYMOUTH SATELLITE (SW);0;8;383.0;175.0;4166.;10.5;70;US
AMC REBEL SST (SW);0;8;360.0;175.0;3850.;11.0;70;US
DODGE CHALLENGER SE;15.0;8;383.0;170.0;3563.;10.0;70;US
PLYMOUTH 'CUDA 340;14.0;8;340.0;160.0;3609.;8.0;70;US
FORD MUSTANG BOSS 302;0;8;302.0;140.0;3353.;8.0;70;US
CHEVROLET MONTE CARLO;15.0;8;400.0;150.0;3761.;9.5;70;US
BUICK ESTATE WAGON (SW);14.0;8;455.0;225.0;3086.;10.0;70;US
TOYOTA COROLLA MARK II;24.0;4;113.0;95.00;2372.;15.0;70;JAPAN
PLYMOUTH DUSTER;22.0;6;198.0;95.00;2833.;15.5;70;US
AMC HORNET;18.0;6;199.0;97.00;2774.;15.5;70;US
FORD MAVERICK;21.0;6;200.0;85.00;2587.;16.0;70;US
DATSUN PL510;27.0;4;97.00;88.00;2130.;14.5;70;JAPAN
VOLKSWAGEN 1131 DELUXE SEDAN;26.0;4;97.00;46.00;1835.;20.5;70;EUROPE
PEUGEOT 504;25.0;4;110.0;87.00;2672.;17.5;70;EUROPE
AUDI 100 LS;24.0;4;107.0;90.00;2430.;14.5;70;EUROPE
SAAB 99E;25.0;4;104.0;95.00;2375.;17.5;70;EUROPE
BMW 2002;26.0;4;121.0;113.0;2234.;12.5;70;EUROPE
AMC GREMLIN;21.0;6;199.0;90.00;2648.;15.0;70;US
FORD F250;10.0;8;360.0;215.0;4615.;14.0;70;US
CHEVY C20;10.0;8;307.0;200.0;4376.;15.0;70;US
DODGE D200;11.0;8;318.0;210.0;4382.;13.5;70;US
HI 1200D;9.0;8;304.0;193.0;4732.;18.5;70;US
DATSUN PL510;27.0;4;97.00;88.00;2130.;14.5;71;JAPAN
CHEVROLET VEGA 2300;28.0;4;140.0;90.00;2264.;15.5;71;US
TOYOTA COROLLA;25.0;4;113.0;95.00;2228.;14.0;71;JAPAN
FORD PINTO;25.0;4;98.00;0;2046.;19.0;71;US
VOLKSWAGEN SUPER BEETLE 117;0;4;97.00;48.00;1978.;20.0;71;EUROPE
AMC GREMLIN;19.0;6;232.0;100.0;2634.;13.0;71;US
PLYMOUTH SATELLITE CUSTOM;16.0;6;225.0;105.0;3439.;15.5;71;US
CHEVROLET CHEVELLE MALIBU;17.0;6;250.0;100.0;3329.;15.5;71;US

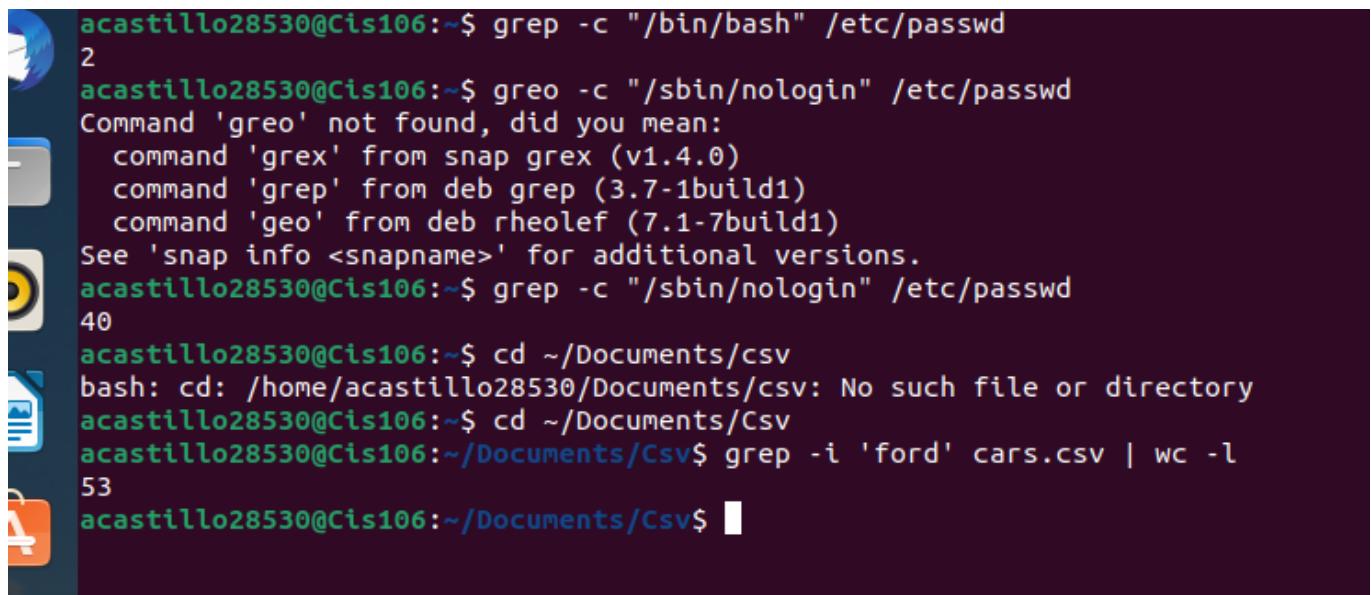
```

To Mr. and Mrs. Gardiner he was scarcely a less interesting personage than to herself. They had long wished to see him. The whole party before them, indeed, excited a lively attention. The suspicions which had just arisen of Mr. Darcy and their niece, directed their observation towards each with an earnest, though guarded, inquiry; and they soon drew from those inquiries the full conviction that one of them at least knew what it was to love. Of the lady's sensations they remained a little in doubt; but that the gentleman was overflowing with admiration was evident enough.

Elizabeth, on her side, had much to do. She wanted to ascertain the feelings of each of her visitors, she wanted to compose her own, and to make herself agreeable to all; and in the latter object, where she feared most to fail, she was most sure of success, for those to whom she endeavoured to give pleasure were pre-possessed in her favour. Bingley was ready, Georgiana was eager, and Darcy determined, to be pleased.

[Illustration:

Question 6



```
acastillo28530@Cis106:~$ grep -c "/bin/bash" /etc/passwd
2
acastillo28530@Cis106:~$ greo -c "/sbin/nologin" /etc/passwd
Command 'greo' not found, did you mean:
  command 'grep' from snap grep (v1.4.0)
  command 'grep' from deb grep (3.7-1build1)
  command 'geo' from deb rheolef (7.1-7build1)
See 'snap info <snapname>' for additional versions.
acastillo28530@Cis106:~$ grep -c "/sbin/nologin" /etc/passwd
40
acastillo28530@Cis106:~$ cd ~/Documents/csv
bash: cd: /home/acastillo28530/Documents/csv: No such file or directory
acastillo28530@Cis106:~$ cd ~/Documents/Csv
acastillo28530@Cis106:~/Documents/Csv$ grep -i 'ford' cars.csv | wc -l
53
acastillo28530@Cis106:~/Documents/Csv$ █
```

Question 7 Challenge questions

```
acastillo28530@Cis106:~/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
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
Cream of Wheat (Quick)
Crispix
Crispy Wheat & Raisins
Double Chex
Froot Loops
Frosted Flakes
Frosted Mini-Wheats
Fruit & Fibre Dates, Walnuts, and Oats
Fruitful Bran
Fruity Pebbles
Golden Crisp
Golden Grahams
Grape Nuts Flakes
Grape-Nuts
Great Grains Pecan
Honey Graham Ohs
Honey Nut Cheerios
Honey-comb
Just Right Crunchy Nuggets
Just Right Fruit & Nut
Kix
Life
Lucky Charms
.....
```

```
acastillo28530@Cis106:~/Documents/Csv$ awk -F';' 'NR > 3 {print $1}' cereal.csv | sort
```

```
100% Natural Bran
All-Bran
All-Bran with Extra Fiber
Almond Delight
Apple Cinnamon Cheerios
Apple Jacks
Basic 4
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
Cream of Wheat (Quick)
Crispix
Crispy Wheat & Raisins
Double Chex
Froot Loops
Frosted Flakes
Frosted Mini-Wheats
Fruit & Fibre Dates, Walnuts, and Oats
Fruitful Bran
Fruity Pebbles
Golden Crisp
Golden Grahams
Grape-Nuts
Grape Nuts Flakes
Great Grains Pecan
Honey Graham Ohs
Honey Nut Cheerios
Just Right Crunchy Nuggets
Just Right Fruit & Nut
Kix
Life
Lucky Charms
```

```
Lucky Charms  
Maven  
acastillo28530@Cis106:~/Documents/Csv$ awk -F';' 'NR > 3 {print $1,$4}' cereal.csv |sort  
100% Natural Bran 120  
All-Bran 70  
All-Bran with Extra Fiber 50  
Almond Delight 110  
Apple Cinnamon Cheerios 110  
Apple Jacks 110  
Basic 4 130  
Bran Chex 90  
Bran Flakes 90  
Cap'n'Crunch 120  
Cheerios 110  
Cinnamon Toast Crunch 120  
Clusters 110  
Cocoa Puffs 110  
Corn Chex 110  
Corn Flakes 100  
Corn Pops 110  
Count Chocula 110  
Cracklin' Oat Bran 110  
Cream of Wheat (Quick) 100  
Crispix 110  
Crispy Wheat & Raisins 100  
Double Chex 100  
Froot Loops 110  
Frosted Flakes 110  
Frosted Mini-Wheats 100  
Fruit & Fibre Dates, Walnuts, and Oats 120  
Fruitful Bran 120  
Fruity Pebbles 110  
Golden Crisp 100  
Golden Grahams 110  
Grape-Nuts 110  
Grape Nuts Flakes 100  
Great Grains Pecan 120  
Honey-comb 110  
Honey Graham Ohs 120  
Honey Nut Cheerios 110  
Just Right Crunchy Nuggets 110  
Just Right Fruit & Nut 140  
Kix 110  
Life 100  
Lucky Charms 110  
Manna 100
```