

# Lab 7 - Handling files

## Question 1

```

fidelacruz@fidelacruz-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:Mailng List Manager:/var/ltst:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
nats:x:41:41:gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
 nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
 systemd-networkd: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
ss:x:106:112:TPM software stack,,,:/var/lib/tpm:/bin/false
 uidd:x:107:115:/run/uidd:/usr/sbin/nologin
 systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
 cgroup: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
 tkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
 hoopster: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
 n-ovpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/ovpn/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
 fuser:x:128:137:gnome-fuser user,,,:/run/fuser:/bin/false

fidelacruz@fidelacruz-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
fidelacruz:x:1000:1000:Fidelacruz,,,:/home/fidelacruz:/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
 n-ovpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/ovpn/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
 hoopster:x:117:124:/nonexistent:/bin/false
 tkit: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
 cgroup:x:109:117:/nonexistent:/usr/sbin/nologin
 systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
 uidd:x:107:115:/run/uidd:/usr/sbin/nologin
ss: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-networkd:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
 nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
 nats: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:Mailng List Manager:/var/ltst:/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

```

```

fdelacruz@fdelacruz-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:Mailng 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:106:112:TPM software stack,,,:/var/lib/tpm:/bin/false$
26 uuid:x:107:115:/:run/uuid:/usr/sbin/nologin$
27 systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin$
28 tcpdump:x:109:117:/: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$

```

```

fdelacruz@fdelacruz-VirtualBox:~$ head -n5 /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
fdelacruz@fdelacruz-VirtualBox:~$ 

```

```

fdelacruz@fdelacruz-VirtualBox:~$ tail -n5 /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
fdelacruz:x:1000:1000:Francisco,,,:/home/fdelacruz:/bin/bash
vboxadd:x:999:1:/:var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
fdelacruz@fdelacruz-VirtualBox:~$ 

```

## Question 2

```
fdelacruz@fdelacruz-VirtualBox:~$ head -n1 /etc/passwd
root:x:0:0:root:/root:/bin/bash
fdelacruz@fdelacruz-VirtualBox:~$
```

```
fdelacruz@fdelacruz-VirtualBox:~$ head -n1 /etc/passwd && tail -n1 /etc/passwd
root:x:0:0:root:/root:/bin/bash
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
fdelacruz@fdelacruz-VirtualBox:~$
```

```
fdelacruz@fdelacruz-VirtualBox:~$ cat /etc/passwd | awk -F: '{print$1,$NF}' | tr " " "="
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
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
```

```

fdelacruz@fdelacruz-VirtualBox:~$ awk -F: '{print$1,$2,$4,$5,$6,$7}' /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: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/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

```

## Question 3

```
fdelacruz@fdelacruz-VirtualBox: ~ 204x47
fdelacruz@fdelacruz-VirtualBox:~$ curl -s https://cis106.com/assets/shopping.txt -o shopping.txt
fdelacruz@fdelacruz-VirtualBox:~$ curl -s https://cis106.com/assets/tasks.txt -o tasks.txt
fdelacruz@fdelacruz-VirtualBox:~$ paste shopping.txt
Eggs
Milk
Juice
Carrots
Potatoes
fdelacruz@fdelacruz-VirtualBox:~$ paste tasks.txt
Do laundry
Play Bingo
Go to Work
Go to School
Pay Bills
fdelacruz@fdelacruz-VirtualBox:~$
```

```
fdelacruz@fdelacruz-VirtualBox:~$ wc Documents/Books/dracula.txt
15845 164354 890196 Documents/Books/dracula.txt
fdelacruz@fdelacruz-VirtualBox:~$ wc Documents/Books/dracula.txt | awk '{print$1}'
15845
fdelacruz@fdelacruz-VirtualBox:~$
```

```

fdelacruz@fdelacruz-VirtualBox:~$ wc Documents/Books/pride-and-prejudice.txt | awk '{print$2}'
130412
fdelacruz@fdelacruz-VirtualBox:~$ █

fdelacruz@fdelacruz-VirtualBox:~$ 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
fdelacruz:x:1000:1000:Francisco,,,:/home/fdelacruz:/bin/bash
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
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/lib:/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:108:116: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:109:117::/nonexistent:/usr/sbin/nologin
tss:x:106:112: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
uuid:x:107:115::/run/uuid:/usr/sbin/nologin

```

## Question 4





```
delacruz@fdelacruz-VirtualBox:~$ cat Documents/Csv/cereal.csv | tr ";" " ",
ame,mfr,type,calories,protein,fat,sodium,fiber,carbo,sugars,potass,vitamins,shelf,weight,cups,rating
tring,Categorical,Categorical,Int,Int,Int,Int,Int,Float,Float,Int,Int,Int,Int,Float,Float,Float
00% Bran,N,C,70,4,1,130,10,5,6,280,25,3,1,0.33,68.402973
00% Natural Bran,Q,C,120,3,5,15,2,8,8,135,0,3,1,1,33.983679
ll-Bran,K,C,70,4,1,260,9,7,5,320,25,3,1,0.33,59.425505
ll-Bran with Extra Fiber,K,C,50,4,0,140,14,8,0,330,25,3,1,0.5,93.704912
lmond Delight,R,C,110,2,2,200,1,14,8,-1,25,3,1,0.75,34.384843
pple Cinnamon Cheerios,G,C,110,2,2,180,1.5,10.5,10,70,25,1,1,0.75,29.509541
pple Jacks,K,C,110,2,0,125,1,11,14,30,25,2,1,1,33.174094
asic 4,G,C,130,3,2,210,2,18,8,100,25,3,1,33,0.75,37.038562
ran Chex,R,C,90,2,1,200,4,15,6,125,25,1,1,0.67,49.120253
ran Flakes,P,C,90,3,0,210,5,13,5,190,25,3,1,0.67,53.313813
ap'n'Crunch,Q,C,120,1,2,220,0,12,12,35,25,2,1,0.75,18.042851
heerios,G,C,110,6,2,290,2,17,1,105,25,1,1,1.25,50.764999
innamon Toast Crunch,G,C,120,1,3,210,0,13,9,45,25,2,1,0.75,19.823573
lusters,G,C,110,3,2,140,2,13,7,105,25,3,1,0.5,40.400208
ocoa Puffs,G,C,110,1,1,180,0,12,13,55,25,2,1,1,22.736446
orn Chex,R,C,110,2,0,280,0,22,3,25,25,1,1,1,41.445019
orn Flakes,K,C,100,2,0,290,1,21,2,35,25,1,1,1,45.863324
orn Pops,K,C,110,1,0,90,1,13,12,20,25,2,1,1,35.782791
ount Chocula,G,C,110,1,1,180,0,12,13,65,25,2,1,1,22.396513
racklin' Oat Bran,K,C,110,3,3,140,4,10,7,160,25,3,1,0.5,40.448772
ream of Wheat (Quick),N,H,100,3,0,80,1,21,0,-1,0,2,1,1,64.533816
rispix,K,C,110,2,0,220,1,21,3,30,25,3,1,1,46.895644
rispy Wheat & Raisins,G,C,100,2,1,140,2,11,10,120,25,3,1,0.75,36.176196
ouble Chex,R,C,100,2,0,190,1,18,5,80,25,3,1,0.75,44.330856
root Loops,K,C,110,2,1,125,1,11,13,30,25,2,1,1,32.207582
rosted Flakes,K,C,110,1,0,200,1,14,11,25,25,1,1,0.75,31.435973
rosted Mini-Wheats,K,C,100,3,0,0,3,14,7,100,25,2,1,0.8,58.345141
ruit & Fibre Dates, Walnuts, and Oats,P,C,120,3,2,160,5,12,10,200,25,3,1,25,0.67,40.917047
ruitful Bran,K,C,120,3,0,240,5,14,12,190,25,3,1,33,0.67,41.015492
ruity Pebbles,P,C,110,1,1,135,0,13,12,25,25,2,1,0.75,28.025765
olden Crisp,P,C,100,2,0,45,0,11,15,40,25,1,1,0.88,35.252444
olden Grahams,G,C,110,1,1,280,0,15,9,45,25,2,1,0.75,23.804043
rape Nuts Flakes,P,C,100,3,1,140,3,15,5,85,25,3,1,0.88,52.076897
rape-Nuts,P,C,110,3,0,170,3,17,3,90,25,3,1,0.25,53.371007
reat Grains Pecan,P,C,120,3,3,75,3,13,4,100,25,3,1,0.33,45.811716
oney Graham Ohs,Q,C,120,1,2,220,1,12,11,45,25,2,1,1,21.871292
oney Nut Cheerios,G,C,110,3,1,250,1.5,11.5,10,90,25,1,1,0.75,31.072217
oney-comb,P,C,110,1,0,180,0,14,11,35,25,1,1,1,33,28.742414
ust Right Crunchy Nuggets,K,C,110,2,1,170,1,17,6,60,100,3,1,1,36.523683
ust Right Fruit & Nut,K,C,140,3,1,170,2,20,9,95,100,3,1,3,0.75,36.471512
ix,G,C,110,2,1,260,0,21,3,40,25,2,1,1.5,39.241114
ife,Q,C,100,4,2,150,2,12,6,95,25,2,1,0.67,45.328074
ucky Charms,G,C,110,2,1,180,0,12,12,55,25,2,1,1,26.734515
aypo,A,H,100,4,1,0,0,16,3,95,25,2,1,1,54.850917
uesli Raisins, Dates, & Almonds,R,C,150,4,3,95,3,16,11,170,25,3,1,1,37.136863
```

```
fdelacruz@fdelacruz-VirtualBox:~$ grep love Documents/Books/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
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  
 to being married, a girl likes to be crossed in **love** a little now and

```
fdelacruz@fdelacruz-VirtualBox:~$ cat Documents/Books/pride-and-prejudice.txt | grep -no "love" && cat Documents/Books/pride-and-prejudice.txt | grep -no "hate"
99:love
103:love
105:love
153:love
166:love
396:love
408:love
409:love
461:love
470:love
474:love
575:love
756:love
921:love
933:love
972:love
1415:love
1430:love
1450:love
1657:love
1657:love
1764:love
2334:love
2341:love
2343:love
2345:love
2821:love
2986:love
3325:love
4705:love
4707:love
4745:love
5074:love
5082:love
5093:love
5093:love
5185:love
5207:love
5241:love
5290:love
5446:love
5461:love
5480:love
5603:love
5614:love
5684:love
```

```
1005:hate
2245:hate
2572:hate
2868:hate
3820:hate
3858:hate
3826:hate
3826:hate
3862:hate
3937:hate
4048:hate
4679:hate
4710:hate
5445:hate
5468:hate
5568:hate
5685:hate
5721:hate
6094:hate
6147:hate
6527:hate
6574:hate
6601:hate
6663:hate
6877:hate
7094:hate
8108:hate
8876:hate
9043:hate
9527:hate
9749:hate
10034:hate
10659:hate
10957:hate
11101:hate
11176:hate
11470:hate
11556:hate
11643:hate
11498:hate
13381:hate
13810:hate
13857:hate
14110:hate
14267:hate
14468:hate
fdelacruz@fdelacruz-VirtualBox:~$

fdelacruz@fdelacruz-VirtualBox:~$ sed -n "11580p" Documents/Books/dracula.txt && sed -n "10474p" Documents/Books/dracula.txt && sed -n "7301p" Documents/Books/dracula.txt && sed -n "6277p" Documents/Books/dracula.txt && sed -n "6247p" Documents/Books/dracula.txt && sed -n "6092p" Documents/Books/dracula.txt
love Mina, I know. Oh, do something to save her. It cannot have gone too
love and from the good, good wishes of those other strong men.
love her. Oh, Madam Mina, by that love, I implore you, help me. It is
love me, and he loves me, and I love you with all the moods and tenses
love and pride, seen you grow up. Now I want you to make your home here
love her. One, two, three, all open their veins for her, besides one old
fdelacruz@fdelacruz-VirtualBox:~$
```

## Question 5

```
fdelacruz@fdelacruz-VirtualBox:~/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
AMC Gremlin US
Plymouth Satellite Custom US
Chevrolet Chevelle Malibu US
Ford Torino 500 US
```

```
fdelacruz@fdelacruz-VirtualBox:~/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
```

```

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
Chevrolet Chevelle Malibu made in US
Ford Torino 500 made in US
AMC Matador made in US

```

```

fdelacruz@fdelacruz-VirtualBox:~/Documents/Csv$ awk -F ";" '{print"The",$1,"has",$3,"cylinders and is made in",$NF}' cars.csv
The Car has 8 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 Hi 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

```



```

fdelacruz@fdelacruz-VirtualBox:~/Documents/Csv$ awk 'NR > 3 {print}' cars.csv
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
Ford Torino 500;19.0;6;250.0;88.00;3302.;15.5;71;US
AMC Matador;18.0;6;232.0;100.0;3288.;15.5;71;US
Chevrolet Impala;14.0;8;350.0;165.0;4209.;12.0;71;US
Pontiac Catalina Brougham;14.0;8;400.0;175.0;4464.;11.5;71;US

```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Csv$ awk 'NR > 2 {print toupper($1)}' cars.csv
CHEVROLET
BUICK
PLYMOUTH
AMC
FORD
FORD
CHEVROLET
PLYMOUTH
PONTIAC
AMC
CITROEN
CHEVROLET
FORD
PLYMOUTH
AMC
DODGE
PLYMOUTH
FORD
CHEVROLET
BUICK
TOYOTA
PLYMOUTH
AMC
FORD
DATSUN
VOLKSWAGEN
PEUGEOT
AUDI
SAAB
BMW
AMC
FORD
CHEVY
DODGE
HI
DATSUN
CHEVROLET
TOYOTA
FORD
VOLKSWAGEN
AMC
PLYMOUTH
CHEVROLET
FORD
AMC
CHEVROLET
```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ sed 's/Dracula/Alucard/g' dracula.txt
```

moment Mr. Morris's bowie knife plunged into the heart.

It was like a miracle; but before our very eyes, and almost in the drawing of a breath, the whole body crumbled into dust and passed from our sight.

I shall be glad as long as I live that even in that moment of final dissolution, there was in the face a look of peace, such as I never could have imagined might have rested there.

The Castle of Alucard now stood out against the red sky, and every stone of its broken battlements was articulated against the light of the setting sun.

The gypsies, taking us as in some way the cause of the extraordinary disappearance of the dead man, turned, without a word, and rode away as if for their lives. Those who were unmounted jumped upon the leiter-wagon and shouted to the horsemen not to desert them. The wolves, which had withdrawn to a safe distance, followed in their wake, leaving us alone.

Mr. Morris, who had sunk to the ground, leaned on his elbow, holding his hand pressed to his side; the blood still gushed through his fingers. I flew to him, for the Holy circle did not now keep me back; so did the two doctors. Jonathan knelt behind him and the wounded man laid back his head on his shoulder. With a sigh he took, with a feeble effort, my hand in that of his own which was unstained. He must have seen the anguish of my heart in my face, for he smiled at me and said:--

"I am only too happy to have been of any service! Oh, God!" he cried suddenly, struggling up to a sitting posture and pointing to me, "It was worth for this to die! Look! look!"

The sun was now right down upon the mountain top, and the red gleams fell upon my face, so that it was bathed in rosy light. With one impulse the men sank on their knees and a deep and earnest "Amen" broke from all as their eyes followed the pointing of his finger. The dying man spoke:--

"Now God be thanked that all has not been in vain! See! the snow is not more stainless than her forehead! The curse has passed away!"

And, to our bitter grief, with a smile and in silence, he died, a gallant gentleman.



```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ sed G /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
```

```
Most people start at our website which has the main PG search
facility: www.gutenberg.org
```

```
This website includes information about Project Gutenberg-tm,
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.
```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ sed '/^$/d;G' pride-and-prejudice.txt
```

## Question 6

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ cat /etc/passwd | grep bash
root:x:0:0:root:/root:/bin/bash
fdelacruz:x:1000:1000:Francisco,,,:/home/fdelacruz:/bin/bash
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ cat /etc/passwd | grep bash | wc -l
2
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$
```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ cat /etc/passwd | grep -c nologin
40
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$
```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Csv$ awk '{print$1}' cars.csv | grep -c "Ford"
53
fdelacruz@fdelacruz-VirtualBox:~/Documents/Csv$
```

```
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$ grep -o [????] bible.txt | wc -w
3297
fdelacruz@fdelacruz-VirtualBox:~/Documents/Books$
```