LAB 7

Question 1

```
0 directories, 0 files
rimon1997@cis106:~$ 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:/var/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
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125::/nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup/:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
_flatpak:x:127:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
mopidy:x:128:29::/var/lib/mopidy:/usr/sbin/nologin
rimon1997@cis106:~$
```

```
rimon1997@cis106:~$ tac /etc/passwd
mopidy:x:128:29::/var/lib/mopidy:/usr/sbin/nologin
_flatpak:x:127:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup/:/bin/false
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
whoopsie:x:120:125::/nonexistent:/bin/false
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
```

```
avant-uatotpu.x.103.110.Avant uatotp daemon,,,./var/etc/avant-uatotpu./usr/sbin/nologin
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/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:/var/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
rimon1997@cis106:~$ 
```

```
rimon1997@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
rimon1997@cis106:~$ 
```

q1.3

```
rimon1997@cis106:~$ tail -5 /etc/passwd
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
_flatpak:x:127:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
mopidy:x:128:29::/var/lib/mopidy:/usr/sbin/nologin
rimon1997@cis106:~$ 
```

Question 2

```
rimon1997@cis106:~$ cut -d ":" -f1 /etc/passwd
root
daemon
bin
sys
sync
games                                          5 / 22
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
systemd-timesync
messagebus
syslog
_apt
tss
uuidd
tcpdump
avahi-autoipd
usbmux
rtkit
dnsmasq
cups-pk-helper
speech-dispatcher
avahi
kernoops
saned
nm-openvpn
hplip
whoopsie
colord
geoclue
pulse
gnome-initial-setup
gdm
sssd
rimon1997
systemd-coredump
_flatpak
mopidy
rimon1997@cis106:~$ 
```

```
rimon1997@cis106:~$ 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
systemd-timesync:/usr/sbin/nologin
messagebus:/usr/sbin/nologin
syslog:/usr/sbin/nologin
_apt:/usr/sbin/nologin
tss:/bin/false
uuidd:/usr/sbin/nologin
tcpdump:/usr/sbin/nologin
avahi-autoipd:/usr/sbin/nologin
usbmux:/usr/sbin/nologin
rtkit:/usr/sbin/nologin
dnsmasq:/usr/sbin/nologin
cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:/bin/false
avahi:/usr/sbin/nologin
kernoops:/usr/sbin/nologin
saned:/usr/sbin/nologin
nm-openvpn:/usr/sbin/nologin
hplip:/bin/false
whoopsie:/bin/false
colord:/usr/sbin/nologin
geoclue:/usr/sbin/nologin
pulse:/usr/sbin/nologin
gnome-initial-setup:/bin/false
gdm:/bin/false
sssd:/usr/sbin/nologin
rimon1997:/bin/bash
systemd-coredump:/usr/sbin/nologin
_flatpak:/usr/sbin/nologin
mopidy:/usr/sbin/nologin
rimon1997@cis106:~$
```

6 / 22

```
rimon1997@cis106:~$ cut -d ":" -f1 --output-delimiter=' => ' /etc/passwd
root
daemon
bin
sys
sync
games
man                                              7 / 22
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
systemd-timesync
messagebus
syslog
_apt
tss
uuidd
tcpdump
avahi-autoipd
usbmux
rtkit
dnsmasq
cups-pk-helper
speech-dispatcher
avahi
kernoops
saned
nm-openvpn
hplip
whoopsie
colord
geoclue
pulse
gnome-initial-setup
gdm
sssd
rimon1997
systemd-coredump
_flatpak
mopidy
```

```
rimon1997@cis106:~$ cut -d ' '  --complement -s -f3 /etc/passwd
list:x:38:38:Mailing List
gnats:x:41:41:Gnats Bug-Reporting (admin):/var/lib/gnats:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time
tss:x:106:111:TPM software
avahi-autoipd:x:109:116:Avahi autoip
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS
kernoops:x:116:65534:Kernel Oops Daemon,,,:/:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologi
hplip:x:119:7:HPLIP system
colord:x:121:126:colord colour daemon,,,:/var/lib/colord:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gdm:x:125:130:Gnome Display
sssd:x:126:131:SSSD system
rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
systemd-coredump:x:999:999:systemd Core
flatpak:x:127:137:Flatpak system-wide helper,,,:/nonexistent:/usr/sbin/nologin
rimon1997@cis106:~$ 
```

Question 3

```
rimon1997@cis106:~$ we Documents/Books/Dracula.txt

Command 'we' not found, but can be installed with:

sudo apt install xwpe

rimon1997@cis106:~$ wc Documents/Books/Dracula.txt
wc: Documents/Books/Dracula.txt: No such file or directory
rimon1997@cis106:~$ wc Documents/Books/dracula.txt
 15860 164386 881251 Documents/Books/dracula.txt
rimon1997@cis106:~$ wc -l  Documents/Books/dracula.txt
15860 Documents/Books/dracula.txt
rimon1997@cis106:~$ wc -w  Documents/Books/dracula.txt
164386 Documents/Books/dracula.txt
rimon1997@cis106:~$ sort /etc/passwd
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
avahi:x:115:121:Avahi mDNS daemon,,,:/var/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:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
cups-pk-helper:x:113:120: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:127:137:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
games:x:5:60:games:/usr/games:/usr/sbin/nologin
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
geoclue:x:122:127::/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:124:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
kernoops:x:116:65534: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:103:106::/nonexistent:/usr/sbin/nologin
mopidy:x:128:29::/var/lib/mopidy:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
nm-openvpn:x:118:124: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:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
root:x:0:0:root:/root:/bin/bash
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
```

Question 4

```
rimon1997@cis106:~$ cat Documents/Csv/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
```

```
Darcy, as well as Elizabeth, really loved them; and they were
rimon1997@cis106:~/Documents/Books$ grep -i "love" pride-and-prejudice.txt
     that he _may_ fall in love with one of them, and therefore you
     persuade you at last. I was sure you loved your girls too well to
     anything. Lydia, my love, though you _are_ the youngest, I dare
     be fond of dancing was a certain step towards falling in love;
     first, and was in a way to be very much in love; but she
     who have heart enough to be really in love without encouragement.
     secure of him, there will be leisure for falling in love as
     love, from love to matrimony, in a moment. I knew you would be
     Well, Jane, make haste and tell us; make haste, my love."
     a gentleman at my brother Gardiner's in town so much in love with her,
     love!"
     "I have been used to consider poetry as the _food_ of love," said
     "Of a fine, stout, healthy love it may. Everything nourishes what
     dearly love a laugh."
     bit of fish to be got to-day. Lydia, my love, ring the bell—I
     His plan did not vary on seeing them. Miss Bennet's lovely face
     likelihood undo the effects of your loveliness and amiable
     to your wish of increasing my love by suspense, according to the
     successful love; for Mrs. Bennet, having dawdled about in the
     brother is in love with you, and wants him to marry Miss Darcy.
     much love in Mr. Darcy for herself, she would have ordered her
     persuade him that, instead of being in love with you, he is very
     much in love with her friend."
```

```
rimon1997@cis106:~/Documents/Books$ grep -Ew  "love|hate" pride-and-prejudice.t
     that he _may_ fall in love with one of them, and therefore you
     anything. Lydia, my love, though you _are_ the youngest, I dare
     be fond of dancing was a certain step towards falling in love;
     "Come, Darcy," said he, "I must have you dance. I hate to see you
     first, and was in a way to be very much in love; but she
     who have heart enough to be really in love without encouragement.
     secure of him, there will be leisure for falling in love as
     love, from love to matrimony, in a moment. I knew you would be
     Well, Jane, make haste and tell us; make haste, my love."
     a gentleman at my brother Gardiner's in town so much in love with her,
     love!"
     "I have been used to consider poetry as the _food_ of love," said
     "Of a fine, stout, healthy love it may. Everything nourishes what
     dearly love a laugh."
     "And _your_ defect is to hate everybody."
     bit of fish to be got to-day. Lydia, my love, ring the bell—I
     I hate such false friends. Why could he not keep on quarreling
     To find a man agreeable whom one is determined to hate! Do not
     to your wish of increasing my love by suspense, according to the
     successful love; for Mrs. Bennet, having dawdled about in the
     brother is in love with you, and wants him to marry Miss Darcy.
     much love in Mr. Darcy for herself, she would have ordered her
     persuade him that, instead of being in love with you, he is very
     much in love with her friend."
     in the lane. But little had she dared to hope that so much love
     love.
     The possibility of Mr. Collins's fancying himself in love with
     love-making relieved them from a great deal of his company. The
     not. There are few people whom I really love, and still fewer of
     me; no wonder if they love her better. But, whatever may be their
     one day, "your sister is crossed in love, I find. I congratulate
     in love now and then. It is something to think of, and it gives
     After a week spent in professions of love and schemes of
     easily falls in love with a pretty girl for a few weeks, and when
     he was violently in love with only a few days before."
     "But that expression of 'violently in love' is so hackneyed, so
     was_ Mr. Bingley's love?"
```

```
rimon1997@cis106:~/Documents/Books$ grep -Ew  "love|hate" pride-and-prejudice.t
      that he _may_ fall in love with one of them, and therefore you
      anything. Lydia, my love, though you _are_ the youngest, I dare
      be fond of dancing was a certain step towards falling in love;
      "Come, Darcy," said he, "I must have you dance. I hate to see you
      first, and was in a way to be very much in love; but she
      who have heart enough to be really in love without encouragement.
      secure of him, there will be leisure for falling in love as
      love, from love to matrimony, in a moment. I knew you would be
      Well, Jane, make haste and tell us; make haste, my love."
      a gentleman at my brother Gardiner's in town so much in love with her,
      love!"
      "I have been used to consider poetry as the _food_ of love," said
      "Of a fine, stout, healthy love it may. Everything nourishes what
      dearly love a laugh."
      "And _your_ defect is to hate everybody."
      bit of fish to be got to-day. Lydia, my love, ring the bell—I
      I hate such false friends. Why could he not keep on quarreling
      To find a man agreeable whom one is determined to hate! Do not
      to your wish of increasing my love by suspense, according to the
      successful love; for Mrs. Bennet, having dawdled about in the
      brother is in love with you, and wants him to marry Miss Darcy.
      much love in Mr. Darcy for herself, she would have ordered her
      persuade him that, instead of being in love with you, he is very
      much in love with her friend."
      in the lane. But little had she dared to hope that so much love
      love.
      The possibility of Mr. Collins's fancying himself in love with
      love-making relieved them from a great deal of his company. The
      not. There are few people whom I really love, and still fewer of
      me; no wonder if they love her better. But, whatever may be their
      one day, "your sister is crossed in love, I find. I congratulate
      in love now and then. It is something to think of, and it gives
      After a week spent in professions of love and schemes of
      easily falls in love with a pretty girl for a few weeks, and when
      he was violently in love with only a few days before."
      "But that expression of 'violently in love' is so hackneyed, so
      was_ Mr. Bingley's love?"
```

```
rimon1997@cis106:~/Documents/Books$ grep -ni  "love" dracula.txt
345:know her is to love her. I long to go through the crowded streets of
990:also that there is a chapel of old times. We Transylvanian nobles love
997:battlements and casements. I love the shade and the shadow, and would
1459:thought and many blushes, her ill-spelt love-letter, and writing in my
1500:at the lovely view to east and south, and unthinking of and uncaring for
1581:"You yourself never loved; you never love!" On this the other women
1587:"Yes, I too can love; you yourselves can tell it from the past. Is it
2261:to speak more. Oh, Mina, couldn't you guess? I love him. I am blushing
2262:as I write, for although I _think_ he loves me, he has not told me so in
2263:words. But oh, Mina, I love him; I love him; I love him! There, that
2317:I could love him in time; and when I shook my head his hands trembled,
2329:loves you honestly, going away and looking all broken-hearted, and to
2344:what I would do if I were a man and wanted to make a girl love me. No, I
2378:began pouring out a perfect torrent of love-making, laying his very
2383:manly fervour that I could have loved him for if I had been free:--
2401:"'Yes, there is some one I love, though he has not told me yet that he
2402:even loves me.' I was right to speak to him so frankly, for quite a
2412:lover; it's more unselfish anyhow. My dear, I'm going to have a pretty
2416:my dear, and a fine fellow, or you could not love him--hasn't spoken
2443:lover, such a husband, and such a friend.
2528:lovelier than ever, and we drove up to the house at the Crescent in
2529:which they have rooms. This is a lovely place. The little river, the
2618:She is so sweet with old people; I think they all fell in love with her
2709:beloved son. 'He was the only son of his mother, and she was a widow.'
2772:but what it is I do not yet know. His redeeming quality is a love of
2959:her looks; she is a trifle stouter, and her cheeks are a lovely
3010:own heart a bit. But, Lord love ye, miss, I ain't afraid of dyin', not a
3546:again. We had a lovely view, and saw the procession nearly all the way.
3597:had made my diary a duty I should not open it to-night. We had a lovely
3616:looks, oh, so sweet. If Mr. Holmwood fell in love with her seeing her
3800:to have become as much in love with the spot as I am, and it is hard to
3966:habit--says he loves; and, indeed, I don't wonder that he does. Then she
4023:suffering from a violent brain fever. He wishes me to convey his love,
4217:poor dear should have fallen in love with any other girl. The idea of
4283:except myself, my life, and my trust, and that with these went my love
4312:"Oceans of love and millions of kisses, and may you soon be in your own
4321:together; and I love him more than ever. He _tells_ me that he loves me
4322:more, but I doubt that, for at first he told me that he couldn't love me
4328:"P. S.--Mother sends her love. She seems better, poor dear. "P. P.
4620:much beloved. That is much, my dear, ever were there that which I do not
```

Question 5

```
rimon1997@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
AMC Gremlin US
Plymouth Satellite Custom US
Chevrolet Chevelle Malibu US
Ford Torino 500 US
AMC Matador US
Chevrolet Impala US
Pontiac Catalina Brougham US
Ford Galaxie 500 US
```

```
rimon1997@cis106:~/Documents/Csv$ awk -F ";" '{OFS="is made on"}{print $1,$NF}' cars.csv
Caris made onOrigin
STRINGis made onCAT
Chevrolet Chevelle Malibuis made onUS
Buick Skylark 320is made onUS
Plymouth Satelliteis made onUS
AMC Rebel SSTis made onUS
Ford Torinois made onUS
```

```
Ford Galaxie 500is made onUS
Chevrolet Impalais made onUS
Plymouth Fury iiiis made onUS
Pontiac Catalinais made onUS
AMC Ambassador DPLis made onUS
Citroen DS-21 Pallasis made onEurope
Chevrolet Chevelle Concours (sw)is made onUS
Ford Torino (sw)is made onUS
Plymouth Satellite (sw)is made onUS
AMC Rebel SST (sw)is made onUS
Dodge Challenger SEis made onUS
Plymouth 'Cuda 340is made onUS
Ford Mustang Boss 302is made onUS
Chevrolet Monte Carlois made onUS
Buick Estate Wagon (sw)is made onUS
Toyota Corolla Mark iiis made onJapan
Plymouth Dusteris made onUS
AMC Hornetis made onUS
Ford Maverickis made onUS
Datsun PL510is made onJapan
Volkswagen 1131 Deluxe Sedanis made onEurope
Peugeot 504is made onEurope
Audi 100 LSis made onEurope
Saab 99eis made onEurope
BMW 2002is made onEurope
AMC Gremlinis made onUS
Ford F250is made onUS
Chevy C20is made onUS
Dodge D200is made onUS
Hi 1200Dis made onUS
Datsun PL510is made onJapan
Chevrolet Vega 2300is made onUS
Toyota Corollais made onJapan
Ford Pintois made onUS
Volkswagen Super Beetle 117is made onEurope
```

```
rimon1997@cis106:~/Documents/Csv$ awk -F ";" '{print"The", $1,"has",$3,"cylinders","and is madeon us",$NF}' cars.csv
The Car has Cylinders cylinders and is madeon us Origin
The STRING has INT cylinders and is madeon us CAT
The Chevrolet Chevelle Malibu has 8 cylinders and is madeon us US
The Buick Skylark 320 has 8 cylinders and is madeon us US
The Plymouth Satellite has 8 cylinders and is madeon us US
The AMC Rebel SST has 8 cylinders and is madeon us US
The Ford Torino has 8 cylinders and is madeon us US
The Ford Galaxie 500 has 8 cylinders and is madeon us US
The Chevrolet Impala has 8 cylinders and is madeon us US
The Plymouth Fury iii has 8 cylinders and is madeon us US
The Pontiac Catalina has 8 cylinders and is madeon us US
The AMC Ambassador DPL has 8 cylinders and is madeon us US
The Citroen DS-21 Pallas has 4 cylinders and is madeon us Europe
The Chevrolet Chevelle Concours (sw) has 8 cylinders and is madeon us US
The Ford Torino (sw) has 8 cylinders and is madeon us US
The Plymouth Satellite (sw) has 8 cylinders and is madeon us US
The AMC Rebel SST (sw) has 8 cylinders and is madeon us US
The Dodge Challenger SE has 8 cylinders and is madeon us US
The Plymouth 'Cuda 340 has 8 cylinders and is madeon us US
The Ford Mustang Boss 302 has 8 cylinders and is madeon us US
The Chevrolet Monte Carlo has 8 cylinders and is madeon us US
The Buick Estate Wagon (sw) has 8 cylinders and is madeon us US
The Toyota Corolla Mark ii has 4 cylinders and is madeon us Japan
The Plymouth Duster has 6 cylinders and is madeon us US
The AMC Hornet has 6 cylinders and is madeon us US
The Ford Maverick has 6 cylinders and is madeon us US
The Datsun PL510 has 4 cylinders and is madeon us Japan
The Volkswagen 1131 Deluxe Sedan has 4 cylinders and is madeon us Europe
The Peugeot 504 has 4 cylinders and is madeon us Europe
The Audi 100 LS has 4 cylinders and is madeon us Europe
The Saab 99e has 4 cylinders and is madeon us Europe
The BMW 2002 has 4 cylinders and is madeon us Europe
The AMC Gremlin has 6 cylinders and is madeon us US
The Ford F250 has 8 cylinders and is madeon us US
The Chevy C20 has 8 cylinders and is madeon us US
The Dodge D200 has 8 cylinders and is madeon us US
The Hi 1200D has 8 cylinders and is madeon us US
The Datsun PL510 has 4 cylinders and is madeon us Japan
The Chevrolet Vega 2300 has 4 cylinders and is madeon us US
The Toyota Corolla has 4 cylinders and is madeon us Japan
The Ford Pinto has 4 cylinders and is madeon us US
The Volkswagen Super Beetle 117 has 4 cylinders and is madeon us Europe
The AMC Gremlin has 6 cylinders and is madeon us US
The Plymouth Satellite Custom has 6 cylinders and is madeon us US
The Chevrolet Chevelle Malibu has 6 cylinders and is madeon us US
The Ford Torino 500 has 6 cylinders and is madeon us US
The AMC Matador has 6 cylinders and is madeon us US
The Chevrolet Impala has 8 cylinders and is madeon us US
The Pontiac Catalina Brougham has 8 cylinders and is madeon us US
The Ford Galaxie 500 has 8 cylinders and is madeon us US
The Plymouth Fury iii has 8 cylinders and is madeon us US
The Dodge Monaco (sw) has 8 cylinders and is madeon us US
```

```
rimon1997@cis106:~/Documents/Csv$ awk  '{print length ($2)}' cars.csv
0
0
8
7
46
5                                          18 / 22
43
7
42
4
45
10
5
8
6
9
5
10
5
7
5
6
7
43
43
45
45
4
44
3
44
45
44
41
40
41
```

```
rimon1997@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;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
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
```

```
rimon1997@cis106:~/Documents/Books$ sed 's/Dracula/Alucard/' Dracula.txt |grep "Alucard"
sed: can't read Dracula.txt: No such file or directory
rimon1997@cis106:~/Documents/Books$ sed 's/Dracula/Alucard/' dracula.txt |grep "Alucard"
The Project Gutenberg eBook of Alucard, by Bram Stoker
Title: Alucard
Castle Alucard, as there are no maps of this country as yet to compare
town named by Count Alucard, is a fairly well-known place. I shall enter
Count Alucard had directed me to go to the Golden Krone Hotel, which I
was all he knew. When I asked him if he knew Count Alucard, and could
"Count Alucard?" He bowed in a courtly way as he replied:--
"I am Alucard; and I bid you welcome, Mr. Harker, to my house. Come in;
Alucard, jumping to his feet, said:--
Alucard, as it may help me to understand. To-night he may talk of
the Turk on his own ground? This was a Alucard indeed! Woe was it that
Turk and brought the shame of slavery on them! Was it not this Alucard,
Hungarian yoke, we of the Alucard blood were amongst their leaders, for
Szekelys--and the Alucard as their heart's blood, their brains, and
Alucard was speaking, there was that in his eyes and in his bearing
Alucard." I suspected him, and determined to test his sincerity.
to my own room. The last I saw of Count Alucard was his kissing his hand
had just been received. It is only a line dated from Castle Alucard,
terrible events at Whitby when Count Alucard landed, so I shall look
had found in his absence: that the house which Alucard had bought was
sisters in the castle of Alucard. He become so small--we ourselves saw
has been. He must, indeed, have been that Voivode Alucard who won his
grave, and are even now arrayed against us. The Alucards were, says
'pokol'--Satan and hell; and in one manuscript this very Alucard is
arranged by Alucard. The house looked as though it had been long
believe in it. Even my own terrible experiences in Castle Alucard seem
discover on what boat and whither bound Count Alucard made his escape:--
Alucard we should go by Galatz, or at any rate through Bucharest, so I
marked for one Count Alucard. Sure eneuch the matter was one ready to
_Ground of inquiry._--Count Alucard's problem is to get back to his own
close to Alucard's castle as can be got by water.
over the Borgo, and find our way to the Castle of Alucard. Here, Madam
awful work, I laid in Alucard's tomb some of the Wafer, and so banished
clear line of Alucard's castle cut the sky; for we were so deep under
The Castle of Alucard now stood out against the red sky, and every stone
rimon1997@cis106:~/Documents/Books$ 
```

```
rimon1997@cis106:~/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:/var/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

systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin

messagebus:x:103:106::/nonexistent:/usr/sbin/nologin

syslog:x:104:110::/home/syslog:/usr/sbin/nologin

_apt:x:105:65534::/nonexistent:/usr/sbin/nologin

tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false

uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin
```

Question 6

```
rimon1997@cis106:~$ grep -n "/bin/bash" /etc/passwd
1:root:x:0:0:root:/root:/bin/bash
46:rimon1997:x:1000:1000:Rimonur Rashid,,,:/home/rimon1997:/bin/bash
rimon1997@cis106:~$ grep -n "/bin/bash" /etc/passwd | wc -l
2
rimon1997@cis106:~$
```

```
rimon1997@cis106:~/Documents/Csv$ cd ../Books/
rimon1997@cis106:~/Documents/Books$ grep -n '^....' bible.txt | wc -l
31102
rimon1997@cis106:~/Documents/Books$
```