

Week Report 7

Practice 1

```
1: phernandez@cis106: ~  
phernandez@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:Mail List Manager:/var/list:/usr/sbin/nologin  
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin  
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin  
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin  
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin  
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin  
messagebus:x:102:105:/nonexistent:/usr/sbin/nologin  
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin  
syslog:x:104:111:/home/syslog:/usr/sbin/nologin  
apt:x:105:65534:/nonexistent:/usr/sbin/nologin  
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false  
uuidd:x:107:116:/run/uuidd:/usr/sbin/nologin  
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin  
tcpdump:x:109:118:/nonexistent:/usr/sbin/nologin  
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin  
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin  
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin  
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin  
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin  
user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin  
1: phernandez@cis106: ~  
phernandez@cis106:~$ tac /etc/passwd  
lightdm:x:130:139:Light Display Manager:/var/lib/lightdm:/bin/false  
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin  
vboxadd:x:999:1:/var/run/vboxadd:/bin/false  
phernandez:x:1000:1000:Phernandez,,,:/home/phernandez:/bin/bash  
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false  
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false  
gnome-initial-setup:x:126:65534:/run/gnome-initial-setup:/bin/false  
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin  
geoclue:x:124:131:/var/lib/geoclue:/usr/sbin/nologin  
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin  
saned:x:122:129:/var/lib/saned:/usr/sbin/nologin  
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin  
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin  
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false  
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin  
whoopsie:x:117:124:/nonexistent:/bin/false  
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin  
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin  
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin  
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin  
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin  
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin  
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin  
tcpdump:x:109:118:/nonexistent:/usr/sbin/nologin  
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin  
1: phernandez@cis106: ~  
phernandez@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 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:Mail List Manager:/var/list:/usr/sbin/nologin$  
16 irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin$  
17 gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin$  
18 nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin$  
19 systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin$  
20 systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin$  
21 messagebus:x:102:105:/nonexistent:/usr/sbin/nologin$  
22 systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin$  
23 syslog:x:104:111:/home/syslog:/usr/sbin/nologin$  
24 _apt:x:105:65534:/nonexistent:/usr/sbin/nologin$  
25 tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false$  
26 uuidd:x:107:116:/run/uuidd:/usr/sbin/nologin$  
27 systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin$  
28 tcpdump:x:109:118:/nonexistent:/usr/sbin/nologin$  
29 avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin$  
30 usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin$  
31 dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin$  
32 kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin$  
33 avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin$  
34 cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin$  
35 rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin$  
36 whoopsie:x:117:124:/nonexistent:/bin/false$  
37 sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin$
```

```

1: phernandez@cis106: ~
phernandez@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
phernandez@cis106:~$ tail -5 /etc/passwd
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
phernandez:x:1000:1000:Phernandez,,,:/home/phernandez:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
lightdm:x:130:139:Light Display Manager:/var/lib/lightdm:/bin/false
phernandez@cis106:~$ tail -1 /etc/passwd
lightdm:x:130:139:Light Display Manager:/var/lib/lightdm:/bin/false
phernandez@cis106:~$ head -1 /etc/passwd
root:x:0:0:root:/root:/bin/bash
phernandez@cis106:~$

```

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```
phernandez@cis106:~$ cat ~/Documents/Books/dracula.txt
```

Practice 2

```

1: phernandez@cis106: ~
phernandez@cis106:~$ cut -d":" -f1 /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
messagebus
systemd-timesync
syslog
_apt
tss
uudd
systemd-oom
tcpdump
avahi-autoipd
usbmux
dnsmasq
kernoops
avahi
cups-pk-helper
rtkit

```

```

1: phernandez@cis106: ~
phernandez@cis106:~$ cut -d":" -f1,6 /etc/passwd
root:/root
daemon:/usr/sbin
bin:/bin
sys:/dev
sync:/bin
games:/usr/games
man:/var/cache/man
lp:/var/spool/lpd
mail:/var/mail
news:/var/spool/news
uucp:/var/spool/uucp
proxy:/bin
www-data:/var/www
backup:/var/backups
list:/var/list
irc:/run/ircd
gnats:/var/lib/gnats
nobody:/nonexistent
systemd-network:/run/systemd
systemd-resolve:/run/systemd
messagebus:/nonexistent
systemd-timesync:/run/systemd
syslog:/home/syslog
_apt:/nonexistent
tss:/var/lib/tpm
uudd:/run/uudd
systemd-oom:/run/systemd
tcpdump:/nonexistent

```

```

1: phernandez@cis106: ~
phernandez@cis106:~$ cut -d":" -f1,6,7 --output-delimiter=">" /etc/passwd
root > /root > /bin/bash
daemon > /usr/sbin > /usr/sbin/nologin
bin > /bin > /usr/sbin/nologin
sys > /dev > /usr/sbin/nologin
sync > /bin > /bin/sync
games > /usr/games > /usr/sbin/nologin
man > /var/cache/man > /usr/sbin/nologin
lp > /var/spool/lpd > /usr/sbin/nologin
mail > /var/mail > /usr/sbin/nologin
news > /var/spool/news > /usr/sbin/nologin
uucp > /var/spool/uucp > /usr/sbin/nologin
www-data > /var/www > /usr/sbin/nologin
backup > /var/backups > /usr/sbin/nologin
list > /var/list > /usr/sbin/nologin
irc > /run/ircd > /usr/sbin/nologin
gnats > /var/lib/gnats > /usr/sbin/nologin
nobody > /nonexistent > /usr/sbin/nologin
systemd-network > /run/systemd > /usr/sbin/nologin
systemd-resolve > /run/systemd > /usr/sbin/nologin
messagebus > /nonexistent > /usr/sbin/nologin
systemd-timesync > /run/systemd > /usr/sbin/nologin
syslog > /home/syslog > /usr/sbin/nologin
_apt > /nonexistent > /usr/sbin/nologin
tss > /var/lib/tpm > /usr/sbin/nologin
uudd > /run/uudd > /usr/sbin/nologin
systemd-oom > /run/systemd > /usr/sbin/nologin
tcpdump > /nonexistent > /usr/sbin/nologin

```

```

1: phernandez@cis106: ~
phernandez@cis106:~$ cut -d";" -f1 ~/Documents/Csv/cereal.csv
name
String
100% Bran
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

phernandez@cis106:~$ cut -d";" -f1,4 --output-delimiter=" calories = " ~/Documents/Csv/cereal.csv
name calories = calories
String calories = Int
100% Bran calories = 70
100% Natural Bran calories = 120
All-Bran calories = 70
All-Bran with Extra Fiber calories = 50
Almond Delight calories = 110
Apple Cinnamon Cheerios calories = 110
Apple Jacks calories = 110
Basic 4 calories = 130
Bran Chex calories = 90
Bran Flakes calories = 90
Cap'n'Crunch calories = 120
Cheerios calories = 110

```

Practice 3

```

1: phernandez@cis106: ~
phernandez@cis106:~$ sort ~/Documents/Csv/cars.csv
AMC Ambassador Brougham;13.0;8;360.0;175.0;3821.;11.0;73;US
AMC Ambassador DPL;15.0;8;390.0;190.0;3850.;8.5;70;US
AMC Ambassador SST;17.0;8;304.0;150.0;3672.;11.5;72;US
AMC Concord;19.4;6;232.0;90.00;3210.;17.2;78;US
AMC Concord;24.3;4;151.0;90.00;3003.;20.1;80;US
AMC Concord d/l;18.1;6;258.0;120.0;3410.;15.1;78;US
AMC Concord DL;23.0;4;151.0;0;3035.;20.5;82;US
AMC Concord DL 6;20.2;6;232.0;90.00;3265.;18.2;79;US
AMC Gremlin;18.0;6;232.0;100.0;2789.;15.0;73;US
AMC Gremlin;19.0;6;232.0;100.0;2634.;13.0;71;US
AMC Gremlin;20.0;6;232.0;100.0;2914.;16.0;75;US
AMC Gremlin;21.0;6;199.0;90.00;2648.;15.0;70;US
AMC Hornet;18.0;6;199.0;97.00;2774.;15.5;70;US
AMC Hornet;18.0;6;232.0;100.0;2945.;16.0;73;US

1: phernandez@cis106: ~/Documents/Csv
phernandez@cis106:~$ cd ~/Documents/Csv/
phernandez@cis106:~/Documents/Csv$ sort -o sorted_cars.csv cars.csv
phernandez@cis106:~/Documents/Csv$ ls
cars.csv cereal.csv contacts.csv country.csv film.csv sorted_cars.csv
phernandez@cis106:~/Documents/Csv$ wc -l sorted_cars.csv
408 sorted_cars.csv
phernandez@cis106:~/Documents/Csv$ wc -m sorted_cars.csv
22663 sorted_cars.csv
phernandez@cis106:~/Documents/Csv$

```

```
Volkswagen Model 111,27.0,4,97.00,60.00,1834.,19.0,71,Europe
Volkswagen Pickup,44.0,4,97.00,52.00,2130.,24.6,82,Europe
Volkswagen Rabbit,29.0,4,90.00,70.00,1937.,14.0,75,Europe
Volkswagen Rabbit,29.0,4,90.00,70.00,1937.,14.2,76,Europe
Volkswagen Rabbit,29.5,4,97.00,71.00,1825.,12.2,76,Europe
Volkswagen Rabbit,29.8,4,89.00,62.00,1845.,15.3,80,Europe
Volkswagen Rabbit,41.5,4,98.00,76.00,2144.,14.7,80,Europe
Volkswagen Rabbit C (Diesel),44.3,4,90.00,48.00,2085.,21.7,80,Europe
Volkswagen Rabbit Custom,29.0,4,97.00,78.00,1940.,14.5,77,Europe
Volkswagen Rabbit Custom,31.9,4,89.00,71.00,1925.,14.0,79,Europe
Volkswagen Rabbit Custom Diesel,43.1,4,90.00,48.00,1985.,21.5,78,Europe
Volkswagen Rabbit l,36.0,4,105.0,74.00,1980.,15.3,82,Europe
Volkswagen Scirocco,31.5,4,89.00,71.00,1990.,14.9,78,Europe
Volkswagen Super Beetle 117,0,4,97.00,48.00,1978.,20.0,71,Europe
Volkswagen Super Beetle,26.0,4,97.00,46.00,1950.,21.0,73,Europe
Volkswagen Type 3,23.0,4,97.00,54.00,2254.,23.5,72,Europe
Volvo 144ea,19.0,4,121.0,112.0,2868.,15.5,73,Europe
Volvo 145e (sw),18.0,4,121.0,112.0,2933.,14.5,72,Europe
Volvo 244DL,22.0,4,121.0,98.00,2945.,14.5,75,Europe
Volvo 245,20.0,4,130.0,102.0,3150.,15.7,76,Europe
Volvo 264gl,17.0,6,163.0,125.0,3140.,13.6,78,Europe
Volvo Diesel,30.7,6,145.0,76.00,3160.,19.6,81,Europe
phernandez@cis106:~/Documents/Csv$ cat sorted_cars.csv | tr ';' ' ',''
```

Practice 4


```

14012:really love him quite well enough? Oh, Lizzy! do anything rather than
14021:"Why, I must confess that I love him better than I do Bingley. I am
14026:how long you have loved him?"
14038:always had a value for him. Were it for nothing but his love of you, I
14128:"I do, I do like him," she replied, with tears in her eyes; "I love him.
14165:paid him; but these violent young lovers carry everything their own
14167:his love for you, and there will be an end of the matter."
14187:lover to any of them. She began at length to recover, to fidget about in
14208:But, my dearest love, tell me what dish Mr. Darcy is particularly fond
14246:Darcy to account for his having ever fallen in love with her. "How could
14273:of _that_ when they fall in love."
14314:for she loves to be of use. But tell me, what did you come down to
14319:might ever hope to make you love me. My avowed one, or what I avowed to
14353:only smiles, I laugh. Mr. Darcy sends you all the love in the world that
14380:being loved by her sister.
14478: "I wish you joy. If you love Mr. Darcy half so well as I do my dear
14519:was exactly what Darcy had hoped to see. They were able to love each
14544:as well as Elizabeth, really loved them; and they were both ever
phernandez@cis106:~/Documents/Books$ grep -in "love" pride-and-prejudice.txt

```

```

1: phernandez@cis106: ~/Documents/Books
phernandez@cis106:~/Documents/Books$ grep -ic "love" pride-and-prejudice.txt
131
phernandez@cis106:~/Documents/Books$ grep -ivc "love" pride-and-prejudice.txt
14774
phernandez@cis106:~/Documents/Books$ grep -io "love" pride-and-prejudice.txt | wc -l
wc: invalid option -- 'l'
Try 'wc --help' for more information.
phernandez@cis106:~/Documents/Books$ grep -io "love" pride-and-prejudice.txt | wc -l
135
phernandez@cis106:~/Documents/Books$ grep -i "^dracula" dracula.txt
DRACULA
Dracula, jumping to his feet, said:--
Dracula, as it may help me to understand. To-night he may talk of
Dracula was speaking, there was that in his eyes and in his bearing
Dracula." I suspected him, and determined to test his sincerity.
Dracula we should go by Galatz, or at any rate through Bucharest, so I
phernandez@cis106:~/Documents/Books$ grep -Ec "bash|zsh|fish" /etc/passwd
2
phernandez@cis106:~/Documents/Books$ grep -Ec "bash|zsh|fish" /etc/passwd
49
phernandez@cis106:~/Documents/Books$

```