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 course : Cis106
 Date: 11/18/23
 Lab: 7

Lab Q&A

Q1

```
sahil@ubuntucls106: $ curl https://cis106.com/assets/installTextFiles.sh | bash && source ~/.bashrc
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload   Total Spent   Left  Speed
100  190  100  190    0     0  409  0  --:--:--  --:--:-- 409
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload   Total Spent   Left  Speed
100 7398  100 7398    0     0 18661  0  --:--:--  --:--:-- 18681
sahil@ubuntucls106: $ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/sync
games:x:5:60: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:/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105:/nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:system 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
uuiddd:x:107:116:/run/uuidd:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:118:/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin

speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:color colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:GNOME Display Manager:/var/lib/gdm3:/bin/false
sahil@ubuntucls106: ~$ svcatel:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
sahil@ubuntucls106: ~$ tac /etc/passwd
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
_flatpak:x:129:138:flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
sahil@ubuntucls106: ~$ svpatel:/bin/bash
gdm:x:1000:1000:sahil:/home/sahil:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
sahil@ubuntucls106: ~$ svpatel:/bin/bash
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
_flatpak:x:129:138:flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
sahil@ubuntucls106: ~$ svpatel:/bin/bash
gdm:x:1000:1000:sahil:/home/sahil:/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:color 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/sssd:/usr/sbin/nologin
whoopie: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:109:118:/nonexistent:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
uiddd:x:107:116:/run/uiddd:/usr/sbin/nologin
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saneo: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/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: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
uuid:x:107:116::/run/uuid:/usr/sbin/nologin
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
syslog:x:104:111::/home/syslog:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105::/nonexistent:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
games:x:5:60:games:/usr/games:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin.sync
sys:x:3:3:sys:/dev:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
root:x:0:0:root:/root:/bin/bash
svpatel@ubuntuc1s106: $ cat -n /etc/passwd | sed 's/$/ \$/'
  1  root:x:0:0:root:/root:/bin/bash $
  2  daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin $
  3  bin:x:2:2:bin:/bin:/usr/sbin/nologin $
  4  sys:x:3:3:sys:/dev:/usr/sbin/nologin $
  5  sync:x:4:65534:sync:/bin:/bin.sync $
  6  games:x:5:60:games:/usr/games:/usr/sbin/nologin $
  7  man:x:6:12:man:/var/cache/man:/usr/sbin/nologin $
  8  lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin $
  9  mail:x:8:8:mail:/var/mail:/usr/sbin/nologin $
 10 news:x:9:9:news:/var/spool/news:/usr/sbin/nologin $
 11 uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin $
 12 proxy:x:13:13:proxy:/bin:/usr/sbin/nologin $
 13 www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin $
 14 backup:x:34:34:backup:/var/backups:/usr/sbin/nologin $
 15 list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin $
 16 irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin $
 17 gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin $
 18 nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin $
 19 systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin $
 20 systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin $
 21 messagebus:x:102:105::/nonexistent:/usr/sbin/nologin $
 22 systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin $
 23 syslog:x:104:111::/home/syslog:/usr/sbin/nologin $
 24 _apt:x:105:65534::/nonexistent:/usr/sbin/nologin $
 25 tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false $
 26 uuid:x:107:116::/run/uuid:/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:KernelOops 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/sssd:/usr/sbin/nologin $
 38 speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false $
 39 fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin $
 40 nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin $
 41 saned:x:122:129::/var/lib/saned:/usr/sbin/nologin $
 42 colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin $
 43 geoclue:x:124:131:/var/lib/geoclue:/usr/sbin/nologin $
 44 pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin $
 45 gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false $
 46 hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false $
 47 gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false $
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35 rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin $
36 whoopsie:x:117:124::/nonexistent:/bin/false $
37 sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin $
38 speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false $
39 fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin $
40 nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin $
41 saned:x:122:129::/var/lib/saned:/usr/sbin/nologin $
42 colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin $
43 geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin $
44 pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin $
45 gnome-initial-setup:x:126:65534::/run/gnome-initial-setup:/bin/false $
46 hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false $
47 gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false $
48 svpatel:x:1000:1000:svpatel,,,:/home/svpatel:/bin/bash $
49 vboxadd:x:999:1::/var/run/vboxadd:/bin/false $
50 _flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin $
51 postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin $
52 ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin $
svpatel@ubuntucis106:~$ head -n 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
svpatel@ubuntucis106:~$ tail -n 5 /etc/passwd
tail: invalid number of lines: '5/etc/passwd'
svpatel@ubuntucis106:~$ tail -n 5 /etc/passwd
svpatel:x:1000:1000:svpatel,,,:/home/svpatel:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
svpatel@ubuntucis106:~$ █
```

Q2

```
svpatel@ubuntucis106:~$ 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
uuid
systemd-oom
tcpdump
avahi-autoipd
usbmux
dnsmasq
kernoops
avahi
cups-pk-helper
rtkit
whoopsie
sssd
speech-dispatcher
fwupd-refresh
nm-openvpn
saned
colord
geoclue
pulse
gnome-initial-setup
hplip
gdm
svpatel
vboxadd
_flatpak
postfix
ciderwebmail
svpatel@ubuntucis106:~$ awk -F: '{print $1, $NF}' /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
uuid /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
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
svpatel /bin/bash
vboxadd /bin/false
_flatpak /usr/sbin/nologin
postfix /usr/sbin/nologin
ciderwebmail /usr/sbin/nologin
svpatel@ubuntucis106:~$ awk -F: '{print $1 "=" $NF}' /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
```

```
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
svpatel=/bin/bash
vboxadd=/bin/false
_flatpak=/usr/sbin/nologin
postfix=/usr/sbin/nologin
ciderwebmail=/usr/sbin/nologin
svpatel@ubuntucis106:~$ awk -F: '{ $3=""; print $0 }' /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
```

```
proxy x 13 proxy /bin/usr/sbin/nologin
www-data x 33 www-data /var/www /usr/sbin/nologin
backup x 34 backup /var/backups /usr/sbin/nologin
list x 38 Mailing List Manager /var/list /usr/sbin/nologin
irc x 39 ircd /run/ircd /usr/sbin/nologin
gnats x 41 Gnats Bug-Reporting System (admin) /var/lib/gnats /usr/sbin/nologin
nobody x 65534 nobody /nonexistent /usr/sbin/nologin
systemd-network x 102 systemd Network Management,,, /run/systemd /usr/sbin/nologin
systemd-resolve x 103 systemd Resolver,,, /run/systemd /usr/sbin/nologin
messagebus x 105 /nonexistent /usr/sbin/nologin
systemd-timesync x 106 systemd Time Synchronization,,, /run/systemd /usr/sbin/nologin
syslog x 111 /home/syslog /usr/sbin/nologin
_apt x 65534 /nonexistent /usr/sbin/nologin
tss x 113 TPM software stack,,, /var/lib/tpm /bin/false
uuidd x 116 /run/uuidd /usr/sbin/nologin
systemd-oom x 117 systemd Userspace OOM Killer,,, /run/systemd /usr/sbin/nologin
tcpdump x 118 /nonexistent /usr/sbin/nologin
avahi-autoipd x 119 Avahi autoip daemon,,, /var/lib/avahi-autoipd /usr/sbin/nologin
usbmux x 46 usbmux daemon,,, /var/lib/usbmux /usr/sbin/nologin
dnsmasq x 65534 dnsmasq,,, /var/lib/misc /usr/sbin/nologin
kernoops x 65534 Kernel Oops Tracking Daemon,,, / /usr/sbin/nologin
avahi x 121 Avahi mDNS daemon,,, /run/avahi-daemon /usr/sbin/nologin
cups-pk-helper x 122 user for cups-pk-helper service,,, /home/cups-pk-helper /usr/sbin/nologin
rtkit x 123 RealtimeKit,,, /proc /usr/sbin/nologin
whoopsie x 124 /nonexistent /bin/false
sssd x 125 SSSD system user,,, /var/lib/sss /usr/sbin/nologin
speech-dispatcher x 29 Speech Dispatcher,,, /run/speech-dispatcher /bin/false
fwupd-refresh x 126 fwupd-refresh user,,, /run/systemd /usr/sbin/nologin
nm-openvpn x 127 NetworkManager OpenVPN,,, /var/lib/openvpn/chroot /usr/sbin/nologin
saned x 129 /var/lib/saned /usr/sbin/nologin
colord x 130 colord colour management daemon,,, /var/lib/colord /usr/sbin/nologin
geoclue x 131 /var/lib/geoclue /usr/sbin/nologin
pulse x 132 PulseAudio daemon,,, /run/pulse /usr/sbin/nologin
gnome-initial-setup x 65534 /run/gnome-initial-setup/ /bin/false
hplip x 7 HPLIP system user,,, /run/hplip /bin/false
gdm x 134 Gnome Display Manager /var/lib/gdm3 /bin/false
svpatel x 1000 svpatel,,, /home/svpatel /bin/bash
vboxadd x 1 /var/run/vboxadd /bin/false
_flatpak x 138 Flatpak system-wide installation helper,,, /nonexistent /usr/sbin/nologin
postfix x 139 /var/spool/postfix /usr/sbin/nologin
ciderwebmail x 141 /var/lib/ciderwebmail /usr/sbin/nologin
svpatel@ubuntucis106: ~
```

Q3

```
svpatel@ubuntucis106:~$ 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
uuid
systemd-oom
tcpdump
avahi-autoipd
usbmux
dnsmasq
kernoops
avahi
cups-pk-helper
rtkit
whoopsie
sssd
speech-dispatcher
fwupd-refresh
nm-openvpn
saned
colord
geoclue
pulse
gnome-initial-setup
hplip
gdm
svpatel
vboxadd
_flatpak
postfix
ciderwebmail
svpatel@ubuntucis106:~$ awk -F: '{print $1, $NF}' /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
uuid /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
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
svpatel /bin/bash
vboxadd /bin/false
_flatpak /usr/sbin/nologin
postfix /usr/sbin/nologin
ciderwebmail /usr/sbin/nologin
svpatel@ubuntucis106:~$ awk -F: '{print $1 "=" $NF}' /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
```

```
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
svpatel=/bin/bash
vboxadd=/bin/false
_flatpak=/usr/sbin/nologin
postfix=/usr/sbin/nologin
ciderwebmail=/usr/sbin/nologin
svpatel@ubuntucis106:~$ awk -F: '{ $3=""; print $0 }' /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
```

```

proxy x 13 proxy /bin /usr/sbin/nologin
www-data x 33 www-data /var/www /usr/sbin/nologin
backup x 34 backup /var/backups /usr/sbin/nologin
list x 38 Mailing List Manager /var/list /usr/sbin/nologin
irc x 39 ircd /run/ircd /usr/sbin/nologin
gnats x 41 Gnats Bug-Reporting System (admin) /var/lib/gnats /usr/sbin/nologin
nobody x 65534 nobody /nonexistent /usr/sbin/nologin
systemd-network x 102 systemd Network Management,,, /run/systemd /usr/sbin/nologin
systemd-resolve x 103 systemd Resolver,,, /run/systemd /usr/sbin/nologin
messagebus x 105 /nonexistent /usr/sbin/nologin
systemd-timesync x 106 systemd Time Synchronization,,, /run/systemd /usr/sbin/nologin
syslog x 111 /home/syslog /usr/sbin/nologin
_apt x 65534 /nonexistent /usr/sbin/nologin
tss x 113 TPM software stack,,, /var/lib/tpm /bin/false
uuid x 116 /run/uuid /usr/sbin/nologin
systemd-oom x 117 systemd Userspace OOM Killer,,, /run/systemd /usr/sbin/nologin
tcpdump x 118 /nonexistent /usr/sbin/nologin
avahi-autoipd x 119 Avahi autoip daemon,,, /var/lib/avahi-autoipd /usr/sbin/nologin
usbmux x 46 usbmux daemon,,, /var/lib/usbmux /usr/sbin/nologin
dnsmasq x 65534 dnsmasq,,, /var/lib/misc /usr/sbin/nologin
kernoops x 65534 Kernel Oops Tracking Daemon,,, / /usr/sbin/nologin
avahi x 121 Avahi mDNS daemon,,, /run/avahi-daemon /usr/sbin/nologin
cups-pk-helper x 122 user for cups-pk-helper service,,, /home/cups-pk-helper /usr/sbin/nologin
rtkit x 123 RealtimeKit,,, /proc /usr/sbin/nologin
whoopsie x 124 /nonexistent /bin/false
sssd x 125 SSSD system user,,, /var/lib/sss /usr/sbin/nologin
speech-dispatcher x 29 Speech Dispatcher,,, /run/speech-dispatcher /bin/false
fwupd-refresh x 126 fwupd-refresh user,,, /run/systemd /usr/sbin/nologin
nm-openvpn x 127 NetworkManager OpenVPN,,, /var/lib/openvpn/chroot /usr/sbin/nologin
saned x 129 /var/lib/saned /usr/sbin/nologin
colord x 130 colord colour management daemon,,, /var/lib/colord /usr/sbin/nologin
geoclue x 131 /var/lib/geoclue /usr/sbin/nologin
pulse x 132 PulseAudio daemon,,, /run/pulse /usr/sbin/nologin
gnome-initial-setup x 65534 /run/gnome-initial-setup/ /bin/false
hplip x 7 HPLIP system user,,, /run/hplip /bin/false
gdm x 134 Gnome Display Manager /var/lib/gdm3 /bin/false
svpatel x 1000 svpatel,,, /home/svpatel /bin/bash
vboxadd x 1 /var/run/vboxadd /bin/false
_flatpak x 138 Flatpak system-wide installation helper,,, /nonexistent /usr/sbin/nologin
postfix x 139 /var/spool/postfix /usr/sbin/nologin
ciderwebmail x 141 /var/lib/ciderwebmail /usr/sbin/nologin
svpatel@ubuntucis106: S

```

Q4

```

svpatel@ubuntucis106:~/Documents/Csv$ sed 's/;/,/g' cereal.csv > cereal_modified.csv

```

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
 After a week spent in professions of **love** and schemes of felicity, Mr.
 such as you describe Mr. Bingley, so easily falls in **love** with a pretty
love with only a few days before."

"But that expression of 'violently in **love**' is so hackneyed, so
 Mr. Bingley's **love**?"
 finer symptoms? Is not general incivility the very essence of **love**?"
 "Oh, yes! of that kind of **love** which I suppose him to have felt. Poor
 them, from what she saw, to be very seriously in **love**, their preference
 "You are too sensible a girl, Lizzy, to fall in **love** merely because you
 myself, and of Mr. Wickham too. He shall not be in **love** with me, if I
 "I beg your pardon. I will try again. At present I am not in **love** with
 that I have never been much in **love**; for had I really experienced that
 her a very good sort of girl. There can be no **love** in all this. My
 interesting object to all my acquaintance, were I distractedly in **love**
 delight as the rattle of the chaise. Elizabeth **loved** absurdities, but
lovely as ever. On the stairs were a troop of little boys and girls,
 making **love** to a girl whom he did not care about, and who was equally
 discern any symptom of **love**; and from the whole of his behaviour to Miss
 gone. "My dear Eliza, he must be in **love** with you, or he would never
love, and the object of that **love** her friend Eliza, she set herself
 pleasure in being at Hunsford, her **love** of solitary walks, and her
 objection,--all **loveliness** and goodness as she is! Her understanding
 repressed. You must allow me to tell you how ardently I admire and **love**
 happiness of a most **beloved** sister?"
 Mr. Darcy! that he should have been in **love** with her for so many months!
 so much in **love** as to wish to marry her in spite of all the objections
 in **love** before. At that ball, while I had the honour of dancing with
 persuaded to believe herself in **love** and to consent to an elopement. She
 discovery! Yet, how just a humiliation! Had I been in **love**, I could not
 have been more wretchedly blind. But vanity, not **love**, has been my
love before, her regard had all the warmth of first attachment, and from
 some of your **lovers**? Poor little Lizzy! But do not be cast down. Such
 "Do not make yourself uneasy, my **love**. Wherever you and Jane are known,
 "My **love**, should not you like to see a place of which you have heard so
 work such a change as this. It is impossible that he should still **love**
 it was to **love**. Of the lady's sensations they remained a little in
 it was evident that he was very much in **love** with her. They saw much to
loved her, but for loving her still well enough to forgive all the

him, as now, when all **love** must be vain.
 "But can you think that Lydia is so lost to everything but **love** of him,
 Since the ---shire were first quartered in Meryton, nothing but **love**,
 being in **love** with each other many weeks."
 "world I **love**, and he is an angel. I should never be happy without
 up. Good-bye. Give my **love** to Colonel Forster. I hope you will
 husband's **love** of independence had alone prevented their exceeding their
 next to him, and took off my **glove** and let my hand just rest upon the
 their elopement had been brought on by the strength of her **love** rather
 to make it impossible for any young woman of character to **love** or
 the house, "as ever I saw. He simpers, and smirks, and makes **love** to us
lover. When first he came in, he had spoken to her but little, but every
 "I think you are in very great danger of making him as much in **love** with
 expect a renewal of his **love**? Is there one among the sex who would not
 "That is a question which I hardly know how to answer. We all **love** to
 "Come here, my **love**, I want to speak to you," took her out of the room.
 everything that was charming, except the professed **lover** of her
 and in spite of his being a **lover**, Elizabeth really believed all his
 really **loved** me, and nothing but a persuasion of my being indifferent
 warmly as a man violently in **love** can be supposed to do. Had Elizabeth
 still have been but for you, dearest, **loveliest** Elizabeth! What do I not
 that my sister **loved** him, or merely from my information last spring?"
 acknowledged **lovers** talked and laughed; the unacknowledged were silent.
 am in earnest. I speak nothing but the truth. He still **loves** me, and we
 did not always **love** him so well as I do now; but in such cases as these
 really **love** him quite well enough? Oh, Lizzy! do anything rather than
 "Why, I must confess that I **love** him better than I do Bingley. I am
 how long you have **loved** him?"
 always had a value for him. Were it for nothing but his **love** of you, I
 "I do, I do like him," she replied, with tears in her eyes; "I **love** him.
 paid him; but these violent young **lovers** carry everything their own
 his **love** for you, and there will be an end of the matter."
lover to any of them. She began at length to recover, to fidget about in
 But, my dearest **love**, tell me what dish Mr. Darcy is particularly fond
 Darcy to account for his having ever fallen in **love** with her. "How could
 of _that_ when they fall in **love**."
 for she **loves** to be of use. But tell me, what did you come down to
 might ever hope to make you **love** me. My avowed one, or what I avowed to
 only smiles, I laugh. Mr. Darcy sends you all the **love** in the world that
 being **loved** by her sister.
 "I wish you joy. If you **love** Mr. Darcy half so well as I do my dear
 was exactly what Darcy had hoped to see. They were able to **love** each
 as well as Elizabeth, really **loved** them; and they were both ever

```
svpatel@ubuntucis106:~/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 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
```

```
svpatel@ubuntuc106:/Documents/Book$ grep -wn -e 'love' -e 'hate' pride-and-prejudice.txt
99:by allowance" and "loving with personal love." This distinction applies
105:proper thing to love them. And in the sect--fairly large and yet
166:aversion to actual love. I do not know whether the all-grasping hand of
396:his falling in love at all is not extremely probable. Here again I
408:injured in disposition, and thoroughly in love. As for his being in
409:love, Elizabeth has given as just an exposition of the causes of that
470:ladies with whom it might be a pleasure to fall in love; there are at
474:Grant. I should have been most in love with Beatrice and Argemone; I
575:"So much love and eloquence" 156
756:_may_ fall in love with one of them, and therefore you must visit him as
933:for your sakes we would do anything. Lydia, my love, though you _are_
972:dancing was a certain step towards falling in love; and very lively
1048:"Come, Darcy," said he, "I must have you dance. I hate to see you
1415:way to be very much in love; but she considered with pleasure that it
1430:very few of us who have heart enough to be really in love without
1450:in love as much as she chooses."
1657:imagination is very rapid; it jumps from admiration to love, from love
1764:Jane, make haste and tell us; make haste, my love."
2334:brother Gardiner's in town so much in love with her, that my
2341:discovered the efficacy of poetry in driving away love!"
2343:"I have been used to consider poetry as the _food_ of love," said Darcy.
2345:"Of a fine, stout, healthy love it may. Everything nourishes what is
2821:be a great loss to _me_ to have many such acquaintance. I dearly love a
2868:"And _your_ defect is a propensity to hate everybody."
2986:to-day. Lydia, my love, ring the bell. I must speak to Hill this
3020:him to write to you at all, and very hypocritical. I hate such false
4048:a man agreeable whom one is determined to hate! Do not wish me such an
4707:shall choose to attribute it to your wish of increasing my love by
4745:successful love; for Mrs. Bennet, having dawdled about in the vestibule
5074:in love with you and wants him to marry Miss Darcy. She follows him to
5082:is not such a simpleton. Could she have seen half as much love in Mr.
5093:of being in love with you, he is very much in love with her friend."
5185:she dared to hope that so much love and eloquence awaited her there.
5207:    "So much love and eloquence"
5241:publish his prosperous love.
5290:The possibility of Mr. Collins's fancying himself in love with her
5480:and, luckily for the others, the busyness of love-making relieved them
5614:whom I really love, and still fewer of whom I think well. The more I see
5684:known her much longer than they have known me; no wonder if they love
5710:day, "your sister is crossed in love, I find. I congratulate her. Next
5711:to being married, a girl likes to be crossed in love a little now and
5753:After a week spent in professions of love and schemes of felicity, Mr.
5805:such as you describe Mr. Bingley, so easily falls in love with a pretty
5804:known her much longer than they have known me, no wonder if they love
5710:day, "your sister is crossed in love, I find. I congratulate her. Next
5711:to being married, a girl likes to be crossed in love a little now and
5753:After a week spent in professions of love and schemes of felicity, Mr.
5805:such as you describe Mr. Bingley, so easily falls in love with a pretty
5819:love with only a few days before."
5821:"But that expression of 'violently in love' is so hackneyed, so
5825:Mr. Bingley's love?"
5832:finer symptoms? Is not general incivility the very essence of love?"
5834:"Oh, yes! of that kind of love which I suppose him to have felt. Poor
5887:them, from what she saw, to be very seriously in love, their preference
5934:"You are too sensible a girl, Lizzy, to fall in love merely because you
5950:myself, and of Mr. Wickham too. He shall not be in love with me, if I
5955:"I beg your pardon. I will try again. At present I am not in love with
6143:that I have never been much in love; for had I really experienced that
6147:out that I hate her at all, or that I am in the least unwilling to think
6148:her a very good sort of girl. There can be no love in all this. My
6150:interesting object to all my acquaintance, were I distractedly in love
6262:making love to a girl whom he did not care about, and who was equally
7071:discern any symptom of love; and from the whole of his behaviour to Miss
7212:gone. "My dear Eliza, he must be in love with you, or he would never
7243:love, and the object of that love her friend Eliza, she set herself
7289:pleasure in being at Hunsford, her love of solitary walks, and her
7535:repressed. You must allow me to tell you how ardently I admire and love
7698:Mr. Darcy! that he should have been in love with her for so many months!
7699:so much in love as to wish to marry her in spite of all the objections
7799:in love before. At that ball, while I had the honour of dancing with
7947:persuaded to believe herself in love and to consent to an elopement. She
8138:discovery! Yet, how just a humiliation! Had I been in love, I could not
8139:have been more wretchedly blind. But vanity, not love, has been my
8805:love before, her regard had all the warmth of first attachment, and from
8983:"Do not make yourself uneasy, my love. Wherever you and Jane are known,
9285:"My love, should not you like to see a place of which you have heard so
9715:work such a change as this. It is impossible that he should still love
9914:it was to love. Of the lady's sensations they remained a little in
10005:it was evident that he was very much in love with her. They saw much to
10034:certainly did not hate him. No; hatred had vanished long ago, and she
10053:gratitude--for to love, ardent love, it must be attributed; and, as
10459:him, as now, when all love must be vain.
10638:"But can you think that Lydia is so lost to everything but love of him,
10649:Since the ----shire were first quartered in Meryton, nothing but love,
10897:being in love with each other many weeks."
10935:    world I love, and he is an angel. I should never be happy without
10946:        up. Good-bye. Give my love to Colonel Forster. I hope you will
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 10935: world I **love**, and he is an angel. I should never be happy without
 10946: up. Good-bye. Give my **love** to Colonel Forster. I hope you will
 11574:husband's **love** of independence had alone prevented their exceeding their
 11903:their elopement had been brought on by the strength of her **love** rather
 12052: to make it impossible for any young woman of character to **love** or
 12366:the house, "as ever I saw. He simpers, and smirks, and makes **love** to us
 12498:say that I **hate** the very sight of him."
 12702:"I think you are in very great danger of making him as much in **love** with
 12771:expect a renewal of his **love**? Is there one among the sex who would not
 12851:"That is a question which I hardly know how to answer. We all **love** to
 12920:"Come here, my **love**, I want to speak to you," took her out of the room.
 13740:warmly as a man violently in **love** can be supposed to do. Had Elizabeth
 13810:make you **hate** me."
 13994:did not always **love** him so well as I do now; but in such cases as these
 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
 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.
 14167:his **love** for you, and there will be an end of the matter."
 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**."
 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
 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
 14519:other, and to be happy in each other's society."

```
svpatel@ubuntucis106:~/Documents/Books$ grep '^love' dracula.txt
Loves you honestly, going away and looking all broken-hearted, and to
lover; it's more unselfish anyhow. My dear, I'm going to have a pretty
lover, such a husband, and such a friend.
Lovelier than ever, and we drove up to the house at the Crescent in
love her. One, two, three, all open their veins for her, besides one old
love and pride, seen you grow up. Now I want you to make your home here
love me, and he loves me, and I love you with all the moods and tenses
loveliness had come back to her in death, and the hours that had passed,
loveliness. It frightened and amazed me somewhat; and as for Arthur, he
love her. Oh, Madam Mina, by that love, I implore you, help me. It is
lover, but only her physician and her friend. I gave to her my nights
loved and honoured as our host is, everything regarding him is of
love and from the good, good wishes of those other strong men.
Love Mina, I know. Oh, do something to save her. It cannot have gone too
loved him and honoured him more than I can say, and that my latest and
loved her, that they did dare much for her sake."
```

```
svpatel@ubuntucis106:~/Documents/Books$ grep '^[A-Z0-9]' 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
Produced by: Chuck Greif and the Online Distributed Proofreading Team
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CHAPTER I. Jonathan Harker's Journal
CHAPTER II. Jonathan Harker's Journal
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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
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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
How these papers have been placed in sequence will be made manifest in
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.
Here I stopped for the night at the Hotel Royale. I had for dinner, or
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JONATHAN HARKER'S JOURNAL
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East; the most western of splendid bridges over the Danube, which is
We left in pretty good time, and came after nightfall to Klausenburgh.
Here I stopped for the night at the Hotel Royale. I had for dinner, or
Carpathians. I found my smattering of German very useful here; indeed, I
Having had some time at my disposal when in London, I had visited the
British Museum, and made search among the books and maps in the library
Transylvania, Moldavia and Bukovina, in the midst of the Carpathian
Castle Dracula, as there are no maps of this country as yet to compare
In the population of Transylvania there are four distinct nationalities:
Saxons in the South, and mixed with them the Wallachs, who are the
East and North. I am going among the latter, who claim to be descended
I did not sleep well, though my bed was comfortable enough, for I had
I had for breakfast more paprika, and a sort of porridge of maize flour
All day long we seemed to dawdle through a country which was full of
Slovaks, who were more barbarian than the rest, with their big cow-boy
It was on the dark side of twilight when we got to Bistritz, which is a
Borgo Pass leads from it into Bukovina--it has had a very stormy
Count Dracula had directed me to go to the Golden Krone Hotel, which I
Just before I was leaving, the old lady came up to my room and said in a
She shook her head as she said again:
She was in such evident distress that I tried to comfort her, but
When I got on the coach the driver had not taken his seat, and I saw him
When we started, the crowd round the inn door, which had by this time
I soon lost sight and recollection of ghostly fears in the beauty of the
Turk should think that they were preparing to bring in foreign troops,
Beyond the green swelling hills of the Mittel Land rose mighty slopes
As we wound on our endless way, and the sun sank lower and lower behind
Pass, the dark firs stood out here and there against the background of
Carpathians seem to wind ceaselessly through the valleys. Sometimes the
When it grew dark there seemed to be some excitement amongst the
Bistritz--the sign of the cross and the guard against the evil eye.
Then, as we flew along, the driver leaned forward, and on each side the
The passengers drew back with a sigh of gladness, which seemed to mock
The strange driver evidently heard the words, for he looked up with a
I really feared to do so, for I thought that, placed as I was, any
Then a dog began to howl somewhere in a farmhouse far down the road--a
Soon we were hemmed in with trees, which in places arched right over the
It grew colder and colder still, and fine, powdery snow began to fall,
Suddenly, away on our left, I saw a faint flickering blue flame. The
I wondered if the driver suddenly appeared again, and without a word took
Once the flame appeared so near the road, that even in the darkness
At last there came a time when the driver went further afield than he

For myself, I felt a sort of paralysis of fear. It is only when a man
All at once the wolves began to howl as though the moonlight had had
When I could see again the driver was climbing into the calèche, and the

CHAPTER II

JONATHAN HARKER'S JOURNAL--_continued_

When the calèche stopped, the driver jumped down and held out his hand
I stood in silence where I was, for I did not know what to do. Of bell
What sort of grim adventure was it on which I had embarked? Was this a
London I got word that my examination was successful; and I am now a
I were awake. It all seemed like a horrible nightmare to me, and I
Just as I had come to this conclusion I heard a heavy step approaching
Within, stood a tall old man, clean shaven save for a long white
I had stepped over the threshold, he moved impulsively forward, and
The Count halted, putting down my bags, closed the door, and crossing
The light and warmth and the Count's courteous welcome seemed to have
I discovered that I was half famished with hunger; so making a hasty
I found supper already laid out. My host, who stood on one side of the
I handed to him the sealed letter which Mr. Hawkins had entrusted to me.
He opened it and read it gravely; then, with a charming smile, he handed
The Count himself came forward and took off the cover of a dish, and I
By this time I had finished my supper, and by my host's desire had drawn
His face was a strong--a very strong--aquiline, with high bridge of the
Hitherto I had noticed the backs of his hands as they lay on his knees
Seeing, I suppose, some expression in my face strange to him, he
I am all in a sea of wonders. I doubt; I fear; I think strange things,
There are certainly odd deficiencies in the house, considering the
The curtains and upholstery of the chairs and sofas and the hangings of
Some time after I had finished my meal--I do not know whether to call it
In the library I found, to my great delight, a vast number of English
London Directory, the "Red" and "Blue" books, Whitaker's Almanac, the
Army and Navy Lists, and--it somehow gladdened my heart to see it--the
Law List.

Whilst I was looking at the books, the door opened, and the Count
To you, my friend, I look that I know it to speak."
London, none there are who would not know me for a stranger. That is not
Hawkins, of Exeter, to tell me all about my new estate in London. You
Of course I said all I could about being willing, and asked if I might
This led to much conversation; and as it was evident that he wanted to
Sometimes he sheered off the subject, or turned the conversation by
Wallachian, the Saxon, and the Turk. Why, there is hardly a foot of soil
Austrian and the Hungarian came up in hordes, and the patriots went out
The Count smiled, and as his lips ran back over his gums, the long,
I shall be all alone, and my friend Harker Jonathan--nay, pardon me, I
Jonathan Harker will not be by my side to correct and aid me. He will be

~~when I had returned, he said:--~~

Presently, with an excuse, he left me, asking me to put all my papers England, as if that map had been much used. On looking at it I found in Yorkshire coast.

It was the better part of an hour when the Count returned. "Aha!" he Count again excused himself, as he had dined out on his being away from After supper I smoked, as on the last evening, and the Count stayed with They say that people who are near death die generally at the change to Dracula, jumping to his feet, said:--

England less interesting, so that I may not forget how time flies by I went into my own room and drew the curtains, but there was little to I only slept a few hours when I went to bed, and feeling that I could This time there could be no error, for the man was close to me, and I When I went into the dining-room, breakfast was prepared; but I could But I am not in heart to describe beauty, for when I had seen the view I The castle is a veritable prison, and I am a prisoner!

CHAPTER III

JONATHAN HARKER'S JOURNAL--_continued_

When I found that I was a prisoner a sort of wild feeling came over me. I rushed up and down the stairs, trying every door and peering out of I had hardly come to this conclusion when I heard the great door below This gave me a fright, for if there is no one else in the castle, it Dracula, as it may help me to understand. To-night he may talk of Iceland the fighting spirit which Thor and Wodin gave them, which their Berserkers displayed to such fell intent on the seaboards of Europe, ay, Attila, whose blood is in these veins?" He held up his arms. "Is it a Magyar, the Lombard, the Avar, the Bulgar, or the Turk poured his Arpad and his legions swept through the Hungarian fatherland he found us Turk and brought the shame of slavery on them! Was it not this Dracula, Hungarian yoke, we of the Dracula blood were amongst their leaders, for Szekelys--and the Dracula as their heart's blood, their brains, and Hapsburgs and the Romanoffs can never reach. The warlike days are over. Blood is too precious a thing in these days of dishonourable peace; and It was by this time close on morning, and we went to bed. (_Mem._, this First, he asked if a man in England might have two solicitors or more. I London, buys for me through your good self my place at London. Good! Now I, who have much of affairs, wish to ship goods, say, to Newcastle, or Durham, or Harwich, or Dover, might it not be that it could with more Hawkins, or to any other?" It was with some bitterness in my heart that I answered that I had not, that as yet I had not seen any opportunity of What could I do but bow acceptance? It was Mr. Hawkins's interest, not Dracula was speaking, there was that in his eyes and in his bearing I could.

One of the letters was directed to Samuel F. Billington, No. 7, The

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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
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svpatel@ubuntucis106:~/Documents/Csv$ awk -F',' '{print $1 " made in " $8}' cars.csv
made in ylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
made in UBLE;INT;DOUBLE;DOUBLE;DOUBLE;DOUBLE;INT;CAT
made in Chevelle Malibu;18.0;8;307.0;130.0;3504.;12.0;70;US
made in lark 320;15.0;8;350.0;165.0;3693.;11.5;70;US
made in Satellite;18.0;8;318.0;150.0;3436.;11.0;70;US
made in SST;16.0;8;304.0;150.0;3433.;12.0;70;US
made in no;17.0;8;302.0;140.0;3449.;10.5;70;US
made in xie 500;15.0;8;429.0;198.0;4341.;10.0;70;US
made in Impala;14.0;8;454.0;220.0;4354.;9.0;70;US
made in Fury iii;14.0;8;440.0;215.0;4312.;8.5;70;US
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made in t;18.0;6;199.0;97.00;2774.;15.5;70;US
made in rick;21.0;6;200.0;85.00;2587.;16.0;70;US
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made in n 1131 Deluxe Sedan;26.0;4;97.00;46.00;1835.;20.5;70;Europe
made in 04;25.0;4;110.0;87.00;2672.;17.5;70;Europe
made in LS;24.0;4;107.0;90.00;2430.;14.5;70;Europe
made in 25.0;4;104.0;95.00;2375.;17.5;70;Europe
made in 26.0;4;121.0;113.0;2234.;12.5;70;Europe
made in in;21.0;6;199.0;90.00;2648.;15.0;70;US
```

```
made in ;10.0;8;360.0;215.0;4615.;14.0;70;US
made in ;10.0;8;307.0;200.0;4376.;15.0;70;US
made in 0;11.0;8;318.0;210.0;4382.;13.5;70;US
made in 9.0;8;304.0;193.0;4732.;18.5;70;US
made in 510;27.0;4;97.00;88.00;2130.;14.5;71;Japan
made in Vega 2300;28.0;4;140.0;90.00;2264.;15.5;71;US
made in rolla;25.0;4;113.0;95.00;2228.;14.0;71;Japan
made in o;25.0;4;98.00;0;2046.;19.0;71;US
```

```
svpatel@ubuntucis106:~/Documents/Csv$ awk -F',' '{print $1 " made in " $8}' cars.csv
made in ylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
made in UBLE;INT;DOUBLE;DOUBLE;DOUBLE;INT;CAT
made in Chevelle Malibu;18.0;8;307.0;130.0;3504.;12.0;70;US
made in lark 320;15.0;8;350.0;165.0;3693.;11.5;70;US
made in Satellite;18.0;8;318.0;150.0;3436.;11.0;70;US
made in SST;16.0;8;304.0;150.0;3433.;12.0;70;US
made in no;17.0;8;302.0;140.0;3449.;10.5;70;US
made in xie 500;15.0;8;429.0;198.0;4341.;10.0;70;US
made in Impala;14.0;8;454.0;220.0;4354.;9.0;70;US
made in Fury iii;14.0;8;440.0;215.0;4312.;8.5;70;US
made in atalina;14.0;8;455.0;225.0;4425.;10.0;70;US
made in sador DPL;15.0;8;390.0;190.0;3850.;8.5;70;US
made in S-21 Pallas;0;4;133.0;0;115.0;3090.;17.5;70;Europe
made in Chevelle Concours (sw);0;8;350.0;165.0;4142.;11.5;70;US
made in no (sw);0;8;351.0;153.0;4034.;11.0;70;US
made in Satellite (sw);0;8;383.0;175.0;4166.;10.5;70;US
made in SST (sw);0;8;360.0;175.0;3850.;11.0;70;US
made in llenger SE;15.0;8;383.0;170.0;3563.;10.0;70;US
made in 'Cuda 340;14.0;8;340.0;160.0;3609.;8.0;70;US
made in ang Boss 302;0;8;302.0;140.0;3353.;8.0;70;US
made in Monte Carlo;15.0;8;400.0;150.0;3761.;9.5;70;US
made in ate Wagon (sw);14.0;8;455.0;225.0;3086.;10.0;70;US
made in rolla Mark ii;24.0;4;113.0;95.00;2372.;15.0;70;Japan
made in Duster;22.0;6;198.0;95.00;2833.;15.5;70;US
made in t;18.0;6;199.0;97.00;2774.;15.5;70;US
made in rick;21.0;6;200.0;85.00;2587.;16.0;70;US
made in 510;27.0;4;97.00;88.00;2130.;14.5;70;Japan
made in n 1131 Deluxe Sedan;26.0;4;97.00;46.00;1835.;20.5;70;Europe
made in 04;25.0;4;110.0;87.00;2672.;17.5;70;Europe
made in LS;24.0;4;107.0;90.00;2430.;14.5;70;Europe
made in 25.0;4;104.0;95.00;2375.;17.5;70;Europe
made in 26.0;4;121.0;113.0;2234.;12.5;70;Europe
made in in;21.0;6;199.0;90.00;2648.;15.0;70;US
made in ;10.0;8;360.0;215.0;4615.;14.0;70;US
made in ;10.0;8;307.0;200.0;4376.;15.0;70;US
made in 0;11.0;8;318.0;210.0;4382.;13.5;70;US
made in 9.0;8;304.0;193.0;4732.;18.5;70;US
made in 510;27.0;4;97.00;88.00;2130.;14.5;71;Japan
made in Vega 2300;28.0;4;140.0;90.00;2264.;15.5;71;US
made in rolla;25.0;4;113.0;95.00;2228.;14.0;71;Japan
made in o;25.0;4;98.00;0;2046.;19.0;71;US
made in n Super Beetle 117;0;4;97.00;48.00;1978.;20.0;71;Europe
made in in;19.0;6;232.0;100.0;2634.;13.0;71;US
made in Satellite Custom;16.0;6;225.0;105.0;3439.;15.5;71;US
```

```
svpatel@ubuntucis106:~/Documents/Csv$ tail -n +3 cars.csv
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
```

```
svpatel@ubuntucis106:~/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
```

```
svpatel@ubuntucis106:~/Documents/Books$ sed 's/Dracula/Alucard/g' dracula.txt
```

```
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
hoopsie: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
fwupd-refresh:x:120:126:fwupd-refresh user,,,,:/run/systemd:/usr/sbin/nologin
openvpn:x:121:127:NetworkManager OpenVPN,,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:127:7:HPLIP system user,,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
svpatel:x:1000:1000:svpatel,,,,:/home/svpatel:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
flatpak:x:129:138:Flatpak system-wide installation helper,,,,:/nonexistent:/usr/sbin/nologin
postfix:x:130:139::/var/spool/postfix:/usr/sbin/nologin
ciderwebmail:x:131:141::/var/lib/ciderwebmail:/usr/sbin/nologin
```

```
svpatel@ubuntucis106:~/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
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
```

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```
vpatel@ubuntucis106:~/Documents/Books$ awk '!NF {if (++n == 1) print; next} {n=0; print}' pride-and-prejudice.txt
```

Q6

```
svpatel@ubuntucis106:~$ grep -c '/sbin/nologin' /etc/passwd  
42  
  
svpatel@ubuntucis106:~/Documents/Csv$ grep -i 'ford' cars.csv  
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  
Ford Torino (sw);0;8;351.0;153.0;4034.;11.0;70;US  
Ford Mustang Boss 302;0;8;302.0;140.0;3353.;8.0;70;US  
Ford Maverick;21.0;6;200.0;85.00;2587.;16.0;70;US  
Ford F250;10.0;8;360.0;215.0;4615.;14.0;70;US  
Ford Pinto;25.0;4;98.00;0;2046.;19.0;71;US  
Ford Torino 500;19.0;6;250.0;88.00;3302.;15.5;71;US  
Ford Galaxie 500;14.0;8;351.0;153.0;4154.;13.5;71;US  
Ford Country Squire (sw);13.0;8;400.0;170.0;4746.;12.0;71;US  
Ford Mustang;18.0;6;250.0;88.00;3139.;14.5;71;US  
Ford Pinto Runabout;21.0;4;122.0;86.00;2226.;16.5;72;US  
Ford Galaxie 500;14.0;8;351.0;153.0;4129.;13.0;72;US  
Ford Gran Torino (sw);13.0;8;302.0;140.0;4294.;16.0;72;US  
Ford Pinto (sw);22.0;4;122.0;86.00;2395.;16.0;72;US  
Ford Gran Torino;14.0;8;302.0;137.0;4042.;14.5;73;US  
Ford LTD;13.0;8;351.0;158.0;4363.;13.0;73;US  
Ford Maverick;18.0;6;250.0;88.00;3021.;16.5;73;US  
Ford Country;12.0;8;400.0;167.0;4906.;12.5;73;US  
Ford Pinto;19.0;4;122.0;85.00;2310.;18.5;73;US  
Ford Maverick;21.0;6;200.0;0;2875.;17.0;74;US  
Ford Pinto;26.0;4;122.0;80.00;2451.;16.5;74;US  
Ford Gran Torino;16.0;8;302.0;140.0;4141.;14.0;74;US  
Ford Gran Torino (sw);14.0;8;302.0;140.0;4638.;16.0;74;US  
Ford Maverick;15.0;6;250.0;72.00;3158.;19.5;75;US  
Ford LTD;14.0;8;351.0;148.0;4657.;13.5;75;US  
Ford Mustang II;13.0;8;302.0;129.0;3169.;12.0;75;US  
Ford Pinto;23.0;4;140.0;83.00;2639.;17.0;75;US  
Ford Pinto;18.0;6;171.0;97.00;2984.;14.5;75;US  
Ford Gran Torino;14.5;8;351.0;152.0;4215.;12.8;76;US  
Ford Maverick;24.0;6;200.0;81.00;3012.;17.6;76;US  
Ford Grenada ghia;18.0;6;250.0;78.00;3574.;21.0;76;US  
Ford Pinto;26.5;4;140.0;72.00;2565.;13.6;76;US  
Ford F108;13.0;8;302.0;130.0;3870.;15.0;76;US  
Ford Grenada;18.5;6;250.0;98.00;3525.;19.0;77;US  
Ford Thunderbird;16.0;8;351.0;149.0;4335.;14.5;77;US  
Ford Mustang II 2+2;25.5;4;140.0;89.00;2755.;15.8;77;US  
Ford Fiesta;36.1;4;98.00;66.00;1800.;14.4;78;US  
Ford Fairmont (auto);20.2;6;200.0;85.00;2965.;15.8;78;US  
Ford Fairmont (man);25.1;4;140.0;88.00;2720.;15.4;78;US  
Ford Futura;18.1;8;302.0;139.0;3205.;11.2;78;US  
Ford Fairmont 4;22.3;4;140.0;88.00;2890.;17.3;79;US  
Ford LTD Landau;17.6;8;302.0;129.0;3725.;13.4;79;US
```

```
Ford Fairmont (auto);20.2;6;200.0;85.00;2965.;15.8;78;US
Ford Fairmont (man);25.1;4;140.0;88.00;2720.;15.4;78;US
Ford Futura;18.1;8;302.0;139.0;3205.;11.2;78;US
Ford Fairmont 4;22.3;4;140.0;88.00;2890.;17.3;79;US
Ford LTD Landau;17.6;8;302.0;129.0;3725.;13.4;79;US
Ford Country Squire (sw);15.5;8;351.0;142.0;4054.;14.3;79;US
Ford Fairmont;26.4;4;140.0;88.00;2870.;18.1;80;US
Ford Mustang Cobra;23.6;4;140.0;0;2905.;14.3;80;US
Ford Escort 4W;34.4;4;98.00;65.00;2045.;16.2;81;US
Ford Escort 2H;29.9;4;98.00;65.00;2380.;20.7;81;US
Ford Grenada gl;20.2;6;200.0;88.00;3060.;17.1;81;US
Ford Fairmont Futura;24.0;4;140.0;92.00;2865.;16.4;82;US
Ford Grenada l;22.0;6;232.0;112.0;2835;14.7;82;US
Ford Mustang GL;27.0;4;140.0;86.00;2790.;15.6;82;US
Ford Ranger;28.0;4;120.0;79.00;2625.;18.6;82;US
```

```
svpatel@ubuntucis106:~/Documents/Csv$ grep -c "/bin/bash" /etc/passwd | wc -l
1
```

```
svpatel@ubuntucis106:~/Documents/Csv$ grep -i 'ford' cars.csv | wc -l
53
```

```
svpatel@ubuntucis106:~/Documents/Csv$ cd
svpatel@ubuntucis106:~/Documents/Books
svpatel@ubuntucis106:~/Documents/Books$ grep -o '\b\w\{4\}\b' bible.txt | wc -l
180414
```

Challenge Answer

```
vpatel@ubuntucis106:~$ cd Documents
vpatel@ubuntucis106:~/Documents$ cd Csv
vpatel@ubuntucis106:~/Documents/Csv$ cut -d',' -f1 cereal.csv
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;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
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;1;105;25;1;1;1.25;50.764999
Cinnamon Toast Crunch;G;C;120;1;3;210;0;13;9;45;25;2;1;0.75;19.823573
Clusters;G;C;110;3;2;140;2;13;7;105;25;3;1;0.5;40.400208
Cocoa Puffs;G;C;110;1;1;180;0;12;13;55;25;2;1;1;22.736446
Corn Chex;R;C;110;2;0;280;0;22;3;25;25;1;1;1;41.445019
Corn Flakes;K;C;100;2;0;290;1;21;2;35;25;1;1;1;45.863324
Corn Pops;K;C;110;1;0;90;1;13;12;20;25;2;1;1;35.782791
Count Chocula;G;C;110;1;1;180;0;12;13;65;25;2;1;1;22.396513
Cracklin' Oat Bran;K;C;110;3;3;140;4;10;7;160;25;3;1;0.5;40.448772
Cream of Wheat (Quick);N;H;100;3;0;80;1;21;0;-1;0;2;1;1;64.533816
Crispix;K;C;110;2;0;220;1;21;3;30;25;3;1;1;46.895644
Crispy Wheat & Raisins;G;C;100;2;1;140;2;11;10;120;25;3;1;0.75;36.176196
Double Chex;R;C;100;2;0;190;1;18;5;80;25;3;1;0.75;44.330856
Froot Loops;K;C;110;2;1;125;1;11;13;30;25;2;1;1;32.207582
Frosted Flakes;K;C;110;1;0;200;1;14;11;25;25;1;1;0.75;31.435973
Frosted Mini-Wheats;K;C;100;3;0;0;3;14;7;100;25;2;1;0.8;58.345141
Fruit & Fibre Dates
Fruitful Bran;K;C;120;3;0;240;5;14;12;190;25;3;1.33;0.67;41.015492
Fruity Pebbles;P;C;110;1;1;135;0;13;12;25;25;2;1;0.75;28.025765
Golden Crisp;P;C;100;2;0;45;0;11;15;40;25;1;1;0.88;35.252444
Golden Grahams;G;C;110;1;1;280;0;15;9;45;25;2;1;0.75;23.804043
Grape Nuts Flakes;P;C;100;3;1;140;3;15;5;85;25;3;1;0.88;52.076897
Grape-Nuts;P;C;110;3;0;170;3;17;3;90;25;3;1;0.25;53.371007
Great Grains Pecan;P;C;120;3;3;75;3;13;4;100;25;3;1;0.33;45.811716
Honey Graham Ohs;Q;C;120;1;2;220;1;12;11;45;25;2;1;1;21.871292
Honey Nut Cheerios;G;C;110;3;1;250;1.5;11.5;10;90;25;1;1;0.75;31.072217
Honey-comb;P;C;110;1;0;180;0;14;11;35;25;1;1;1.33;28.742414
Just Right Crunchy Nuggets;K;C;110;2;1;170;1;17;6;60;100;3;1;1;36.523683
Just Right Fruit & Nut;K;C;140;3;1;170;2;20;9;95;100;3;1.3;0.75;36.471512
```

```
vpatel@ubuntucis106:~/Documents/Csv$ cut -d',' -f1 cereal.csv | sort | tail -n +3 > cereal-sorted.csv
vpatel@ubuntucis106:~/Documents/Csv$ awk -F ',' '{print $1," ",$9}' cereal-sorted.csv
```

Fruit & Fibre Dates - calories

- caloriesn;K;C;120;3;0;240;5;14;12;190;25;3;1.33;0.67;41.015492
- calorieses;P;C;110;1;1;135;0;13;12;25;25;2;1;0.75;28.025765
- calories;P;C;100;2;0;45;0;11;15;40;25;1;1;0.88;35.252444
- caloriesms;G;C;110;1;1;280;0;15;9;45;25;2;1;0.75;23.804043
- calorieslakes;P;C;100;3;1;140;3;15;5;85;25;3;1;0.88;52.076897
- calories;C;110;3;0;170;3;17;3;90;25;3;1;0.25;53.371007
- calories Pecan;P;C;120;3;3;75;3;13;4;100;25;3;1;0.33;45.811716
- calories Ohs;Q;C;120;1;2;220;1;12;11;45;25;2;1;1;21.871292
- calorieseerials;G;C;110;3;1;250;1.5;11.5;10;90;25;1;1;0.75;31.072217
- calories;C;110;1;0;180;0;14;11;35;25;1;1;1.33;28.742414
- caloriesrunchy Nuggets;K;C;110;2;1;170;1;17;6;60;100;3;1;1;36.523683
- caloriesruit & Nut;K;C;140;3;1;170;2;20;9;95;100;3;1.3;0.75;36.471512
- calories2;1;260;0;21;3;40;25;2;1;1.5;39.241114
- calories;4;2;150;2;12;6;95;25;2;1;0.67;45.328074
- calories;G;C;110;2;1;180;0;12;12;55;25;2;1;1;26.734515
- calories0;4;1;0;0;16;3;95;25;2;1;1;54.850917

Muesli Raisins - calories**Muesli Raisins - calories**

- caloriespy Blend;K;C;160;3;2;150;3;17;13;160;25;3;1.5;0.67;30.313351
- caloriesCheerios;G;C;100;2;1;220;2;15;6;90;25;1;1;1;40.105965
- caloriesunch;K;C;120;2;1;190;0;15;9;40;25;2;1;0.67;29.924285
- caloriesAlmond-Raisin;K;C;140;3;2;220;3;21;7;130;25;3;1.33;0.67;40.692320
- caloriesWheat;K;C;90;3;0;170;3;18;2;90;25;3;1;1;59.642837
- caloriesin Crisp;G;C;130;3;2;170;1.5;13.5;10;120;25;3;1.25;0.5;30.450843
- caloriesisin Bran;P;C;120;3;1;200;6;11;14;260;25;3;1.33;0.67;37.840594
- calories;C;100;3;0;320;1;20;3;45;100;3;1;1;41.503540
- caloriesQ;C;50;1;0;0;0;13;0;15;0;3;0.5;1;60.756112
- calories;Q;C;50;2;0;0;1;10;0;50;0;3;0.5;1;63.005645
- caloriesquares;Q;C;100;4;1;135;2;14;6;110;25;3;1;0.5;49.511874
- caloriesal;Q;H;100;5;2;0;2.7;-1;-1;110;0;1;1;0.67;50.828392
- caloriesK;C;120;3;1;210;5;14;12;240;25;2;1.33;0.75;39.259197
- caloriesran;G;C;100;3;2;140;2.5;10.5;8;140;25;3;1;0.5;39.703400
- calorieses;K;C;90;2;0;0;2;15;6;110;25;3;1;0.5;55.333142
- caloriesC;110;1;0;240;0;23;2;30;25;1;1;1.13;41.998933
- caloriess;K;C;110;2;0;290;0;22;3;35;25;1;1;1;40.560159
- caloriesat;N;C;80;2;0;0;3;16;0;95;0;1;0.83;1;68.235885
- caloriesat 'n'Bran;N;C;90;3;0;0;4;19;0;140;0;1;1;0.67;74.472949
- caloriesat spoon size;N;C;90;3;0;0;3;20;0;120;0;1;1;0.67;72.801787
- calories10;2;1;70;1;9;15;40;25;2;1;0.75;31.230054
- caloriesC;110;6;0;230;1;16;3;55;25;1;1;1;53.131324
- caloriesruit Wheats;N;C;90;2;0;15;3;15;5;90;25;2;1;1;59.363993
- calorieslakes;G;C;110;2;1;200;0;21;3;35;100;3;1;1;38.839746
- calories Bran;G;C;140;3;1;190;4;15;14;230;100;3;1.5;1;28.592785
- caloriesGrain;G;C;100;3;1;200;3;16;3;110;100;3;1;1;46.658844
- calories110;2;1;250;0;21;3;60;25;3;1;0.75;39.106174
- calories;1;1;140;0;13;12;25;2;1;1;27.753301

```
vpatel@ubuntucis106:~/Documents/Csv$ awk -F',' '{print $1 " - " $8 " calories"}' cereal.csv
- caloriese;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;shelf;weight;cups;rating
- caloriesorical;Categorical;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float
- caloriesC;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973
- calories Bran;Q;C;120;3;5;15;2;8;8;135;0;3;1;1;33.983679
- calories;70;4;1;260;9;7;5;320;25;3;1;0.33;59.425505
- caloriesh Extra Fiber;K;C;50;4;0;140;14;8;0;330;25;3;1;0.5;93.704912
- caloriesht;R;C;110;2;2;200;1;14;8;-1;25;3;1;0.75;34.384843
- calorieson Cheerios;G;C;110;2;2;180;1.5;10.5;10;70;25;1;1;0.75;29.509541
- caloriesK;C;110;2;0;125;1;11;14;30;25;2;1;1;33.174094
- calories130;3;2;210;2;18;8;100;25;3;1.33;0.75;37.038562
- caloriesC;90;2;1;200;4;15;6;125;25;1;1;0.67;49.120253
- caloriesP;C;90;3;0;210;5;13;5;190;25;3;1;0.67;53.313813
- calories;Q;C;120;1;2;220;0;12;12;35;25;2;1;0.75;18.042851
- calories;110;6;2;290;2;17;1;105;25;1;1;1.25;50.764999
- caloriessst Crunch;G;C;120;1;3;210;0;13;9;45;25;2;1;0.75;19.823573
- calories;110;3;2;140;2;13;7;105;25;3;1;0.5;40.400208
- caloriesG;C;110;1;1;180;0;12;13;55;25;2;1;1;22.736446
- caloriesc;110;2;0;280;0;22;3;25;25;1;1;41.445019
- caloriesk;C;100;2;0;290;1;21;2;35;25;1;1;1;45.863324
- caloriesc;110;1;0;90;1;13;12;20;25;2;1;1;35.782791
- caloriesa;G;C;110;1;1;180;0;12;13;65;25;2;1;1;22.396513
- caloriest Bran;K;C;110;3;3;140;4;10;7;160;25;3;1;0.5;40.448772
- caloriesat (Quick);N;H;100;3;0;80;1;21;0;-1;0;2;1;1;64.533816
- calories110;2;0;220;1;21;3;30;25;3;1;1;46.895644
- calories & Raisins;G;C;100;2;1;140;2;11;10;120;25;3;1;0.75;36.176196
- caloriesR;C;100;2;0;190;1;18;5;80;25;3;1;0.75;44.330856
- caloriesk;C;110;2;1;125;1;11;13;30;25;2;1;1;32.207582
- calorieses;K;C;110;1;0;200;1;14;11;25;25;1;1;0.75;31.435973
- calories-Wheats;K;C;100;3;0;0;3;14;7;100;25;2;1;0.8;58.345141
uit & Fibre Dates - calories
- caloriesn;K;C;120;3;0;240;5;14;12;190;25;3;1.33;0.67;41.015492
- calorieses;P;C;110;1;1;135;0;13;12;25;25;2;1;0.75;28.025765
- calories;P;C;100;2;0;45;0;11;15;40;25;1;1;0.88;35.252444
- caloriesms;G;C;110;1;1;280;0;15;9;45;25;2;1;0.75;23.804043
- calorieslakes;P;C;100;3;1;140;3;15;5;85;25;3;1;0.88;52.076897
- calories;C;110;3;0;170;3;17;3;90;25;3;1;0.25;53.371007
- calories Pecan;P;C;120;3;3;75;3;13;4;100;25;3;1;0.33;45.811716
- calories Ohs;0;C;120;1;2;220;1;12;11;45;25;2;1;1;21.871292
```

Golden Grahams - 0 calories
Grape Nuts Flakes - 3 calories
Grape-Nuts - 3 calories
Great Grains Pecan - 3 calories
Honey Graham Ohs - 1 calories
Honey Nut Cheerios - 1.5 calories
Honey-comb - 0 calories
Just Right Crunchy Nuggets - 1 calories
Just Right Fruit & Nut - 2 calories
Kix - 0 calories
Life - 2 calories
Lucky Charms - 0 calories
Maypo - 0 calories
Muesli Raisins, Dates, & Almonds - 3 calories
Muesli Raisins, Peaches, & Pecans - 3 calories
Mueslix Crispy Blend - 3 calories
Multi-Grain Cheerios - 2 calories
Nut&Honey Crunch - 0 calories
Nutri-Grain Almond-Raisin - 3 calories
Nutri-grain Wheat - 3 calories
Oatmeal Raisin Crisp - 1.5 calories
Post Nat. Raisin Bran - 6 calories
Product 19 - 1 calories
Puffed Rice - 0 calories
Puffed Wheat - 1 calories
Quaker Oat Squares - 2 calories
Quaker Oatmeal - 2.7 calories
Raisin Bran - 5 calories
Raisin Nut Bran - 2.5 calories
Raisin Squares - 2 calories
Rice Chex - 0 calories
Rice Krispies - 0 calories
Shredded Wheat - 3 calories
Shredded Wheat 'n'Bran - 4 calories
Shredded Wheat spoon size - 3 calories
Smacks - 1 calories
Special K - 1 calories
Strawberry Fruit Wheats - 3 calories
Total Corn Flakes - 0 calories
Total Raisin Bran - 4 calories
Total Whole Grain - 3 calories
Triples - 0 calories
Trix - 0 calories
Wheat Chex - 3 calories
Wheaties - 3 calories
Wheaties Honey Gold - 1 calories

```
svpatel@ubuntucis106:~/Documents/Csv$ awk -F';' '{print $1 " - " $8 " calories"}' cereal.csv
name - fiber calories
String - Float calories
100% Bran - 10 calories
100% Natural Bran - 2 calories
All-Bran - 9 calories
All-Bran with Extra Fiber - 14 calories
Almond Delight - 1 calories
Apple Cinnamon Cheerios - 1.5 calories
Apple Jacks - 1 calories
Basic 4 - 2 calories
Bran Chex - 4 calories
Bran Flakes - 5 calories
Cap'n'Crunch - 0 calories
Cheerios - 2 calories
Cinnamon Toast Crunch - 0 calories
Clusters - 2 calories
Cocoa Puffs - 0 calories
Corn Chex - 0 calories
Corn Flakes - 1 calories
Corn Pops - 1 calories
Count Chocula - 0 calories
Cracklin' Oat Bran - 4 calories
Cream of Wheat (Quick) - 1 calories
Crispix - 1 calories
Crispy Wheat & Raisins - 2 calories
Double Chex - 1 calories
Froot Loops - 1 calories
Frosted Flakes - 1 calories
Frosted Mini-Wheats - 3 calories
Fruit & Fibre Dates, Walnuts, and Oats - 5 calories
Fruitful Bran - 5 calories
Fruity Pebbles - 0 calories
Golden Crisp - 0 calories
Golden Grahams - 0 calories
Grape Nuts Flakes - 3 calories
Grape-Nuts - 3 calories
Great Grains Pecan - 3 calories
Honey Graham Ohs - 1 calories
Honey Nut Cheerios - 1.5 calories
Honey-comb - 0 calories
```

The End