

# lab 8

## Q1

```
Nov 23 21:06
Tilix: prana2@cis106: ~

1: prana2@cis106: ~/lab8
prana2@cis106:~$ mkdir lab8
prana2@cis106:~$ cd lab8/
prana2@cis106:~/lab8$ echo "All files in my home directory" > file_report.txt
prana2@cis106:~/lab8$ ls -Am ~ >> file_report.txt
prana2@cis106:~/lab8$ cat file_report.txt
All files in my home directory
.ansi_codes.sh, .bash_aliases, .bash_aliases.swp, .bash_history, .bash_logout,
.bashrc, .cache, cars-no-header.csv, challenge-lab6, challenge-lab6, cis106,
cis106.zip, .config, Desktop, docs, Documents, .dotnet, Downloads,
Final project, .gitconfig, .gnupg, lab5-audio-lab5-video, lab6, lab8, .lessht,
.librewolf, .local, Music, pets.txt, Pictures, .pki, platanoseller, practice,
practicels, .profile, Public, .python_history, scripts, snap, .ssh,
.sudo_as_admin_successful, .swp, Templates, .textFiles.sh, tfi.sh, Videos,
.viminfo, .vscode, website, website-lab5, website-lab5.zip, .wget-hsts,
wildcardpractice
prana2@cis106:~/lab8$

2: prana2@cis106: ~
prana2@cis106:~$ echo "All files in my home directory"
All files in my home directory
prana2@cis106:~$ man ls | grep "all"
troff: <standard input>:253: warning [p 5, 7.3i]: cannot adjust line
troff: <standard input>:255: warning [p 5, 7.8i]: cannot adjust line
troff: <standard input>:266: warning [p 5, 10.7i]: cannot adjust line
Sort entries alphabetically if none
-a, --all
-A, --almost-all
-f, --list-all entries in directory
print the allocated size of
-X sort alphabetically by entry
Written by Richard M. Stallman and
or available locally via: info
prana2@cis106:~$ man ls | grep "comma"
troff: <standard input>:253: warning [p 5, 7.3i]: cannot adjust line
troff: <standard input>:255: warning [p 5, 7.8i]: cannot adjust line
troff: <standard input>:266: warning [p 5, 10.7i]: cannot adjust line
across -x, commas -m, hori-
-H, --dereference-command-line
on the command line
--dereference-command-line-sym-
follow each command line sym-
-m fill width with a comma sepa-
cannot access command-line
prana2@cis106:~$
```

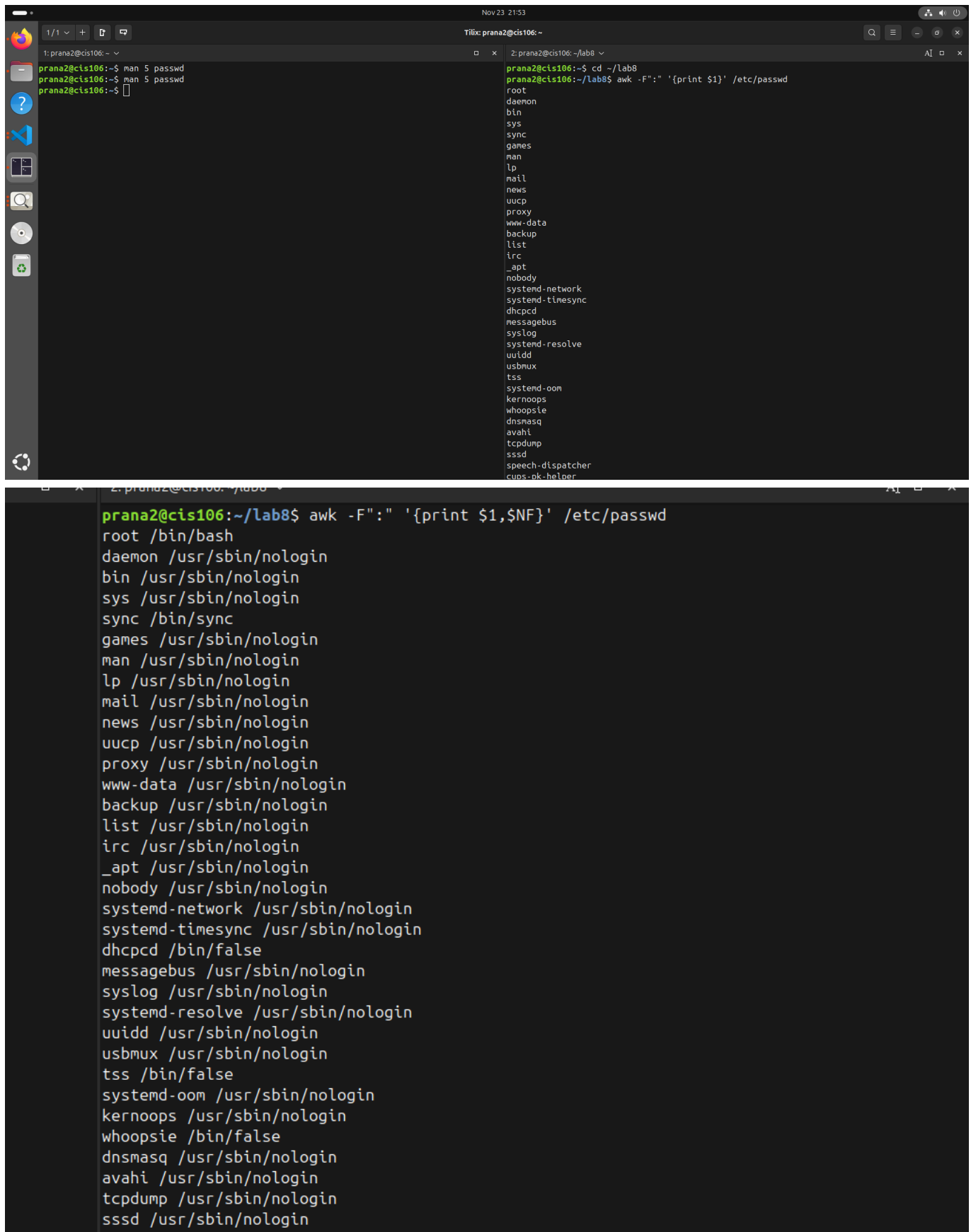
## Q2

```
Nov 23 21:27
Tilix: prana2@cis106: ~/lab8

1: prana2@cis106: ~/lab8
prana2@cis106:~/lab8$ echo "total number of files in my home directory" >> file_report.txt
prana2@cis106:~/lab8$ ls -lA ~ | grep "^."^c
prana2@cis106:~/lab8$ ls -lA ~ | grep "^." | wc
20 180 1252
prana2@cis106:~/lab8$ ls -lA ~ | grep "^." | wc -l
20
prana2@cis106:~/lab8$ ls -lA ~ | grep "^." | wc -l >> file_report.txt
prana2@cis106:~/lab8$ echo "total number of directory in my home directory" >> file_report.txt
prana2@cis106:~/lab8$ ls -lA ~ | grep "^d" | wc -l >> file_report.txt
prana2@cis106:~/lab8$ tail file_report.txt
Final project, .gitconfig, .gnupg, lab5-audio-lab5-video, lab6, lab8, .lessht,
.librewolf, .local, Music, pets.txt, Pictures, .pki, platanoseller, practice,
practicels, .profile, Public, .python_history, scripts, snap, .ssh,
.sudo_as_admin_successful, .swp, Templates, .textFiles.sh, tfi.sh, Videos,
.viminfo, .vscode, website, website-lab5, website-lab5.zip, .wget-hsts,
wildcardpractice
total number of files in my home directory
20
total number of directory in my home directory
33
prana2@cis106:~/lab8$

2: prana2@cis106: ~
prana2@cis106:~$ man wc | grep "line"
troff: <standard input>:57: warning [p 2, 0.3i]: cannot adjust line
troff: <standard input>:60: warning [p 2, 1.5i]: cannot adjust line
wc - print newline, word, and byte
Print newline, word, and byte
line if more than one FILE is spec-
line, word, character, byte, maxi-
mum line length.
-l, --lines
print the newline counts
-L, --max-line-length
when to print a line with
GNU coreutils online help:
prana2@cis106:~$ ls -lA ~ | grep "^d"
drwxr-xr-x 19 prana2 prana2 4096 Nov 10 23:13 .cache
drwxrwxr-x 5 prana2 prana2 4096 Nov 10 21:53 challenge-lab6
drwxrwxr-x 2 prana2 prana2 4096 Nov 10 21:39 challenge-lab6
drwxrwxr-x 7 prana2 prana2 4096 Nov 1 15:29 cis106
drwxr-xr-x 18 prana2 prana2 4096 Oct 10 18:39 .config
drwxr-xr-x 2 prana2 prana2 4096 Sep 25 20:29 Desktop
drwxrwxr-x 3 prana2 prana2 4096 Nov 14 18:03 docs
drwxr-xr-x 5 prana2 prana2 4096 Nov 7 18:07 Documents
drwxrwxr-x 3 prana2 prana2 4096 Sep 25 21:44 .dotnet
drwxr-xr-x 5 prana2 prana2 4096 Nov 21 19:05 Downloads
drwxrwxr-x 3 prana2 prana2 4096 Nov 18 22:36 Final project
drwxr-xr-x 2 prana2 prana2 4096 Nov 21 18:37 .gnupg
drwxrwxr-x 2 prana2 prana2 4096 Nov 1 18:05 lab5-audio-lab5-video
drwxrwxr-x 12 prana2 prana2 4096 Nov 10 21:32 lab6
drwxrwxr-x 2 prana2 prana2 4096 Nov 23 21:04 lab8
drwxr-xr-x 4 prana2 prana2 4096 Oct 21 03:09 .librewolf
drwxr-xr-x 4 prana2 prana2 4096 Sep 25 20:29 .local
drwxr-xr-x 2 prana2 prana2 4096 Oct 17 18:41 Music
drwxr-xr-x 5 prana2 prana2 4096 Nov 1 22:00 Pictures
drwxr-xr-x 3 prana2 prana2 4096 Sep 25 21:43 .pki
drwxrwxr-x 5 prana2 prana2 4096 Oct 31 17:59 platanoseller
drwxrwxr-x 2 prana2 prana2 4096 Oct 24 18:27 practice
drwxrwxr-x 2 prana2 prana2 4096 Feb 27 2022 practicles
drwxr-xr-x 2 prana2 prana2 4096 Sep 25 20:29 Public
```

## Q3



```
Nov 23 21:53
Tilix: prana2@cis106: ~
1: prana2@cis106: ~
prana2@cis106:~$ man 5 passwd
prana2@cis106:~$ man 5 passwd
prana2@cis106:~$

2: prana2@cis106: ~/lab8
prana2@cis106:~$ cd ~/lab8
prana2@cis106:~/lab8$ awk -F":" '{print $1}' /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
_apt
nobody
systemd-network
systemd-timesync
dhcpcd
messagebus
syslog
systemd-resolve
uuidd
usbmux
tss
systemd-oom
kernoops
whoopsie
dnsmasq
avahi
tcpdump
sssd
speech-dispatcher
cups-pk-helper
```

```
prana2@cis106:~/lab8$ 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
_apt /usr/sbin/nologin
nobody /usr/sbin/nologin
systemd-network /usr/sbin/nologin
systemd-timesync /usr/sbin/nologin
dhcpcd /bin/false
messagebus /usr/sbin/nologin
syslog /usr/sbin/nologin
systemd-resolve /usr/sbin/nologin
uuidd /usr/sbin/nologin
usbmux /usr/sbin/nologin
tss /bin/false
systemd-oom /usr/sbin/nologin
kernoops /usr/sbin/nologin
whoopsie /bin/false
dnsmasq /usr/sbin/nologin
avahi /usr/sbin/nologin
tcpdump /usr/sbin/nologin
sssd /usr/sbin/nologin
speech-dispatcher /usr/sbin/nologin
cups-pk-helper /usr/sbin/nologin
```

```

the /usr/sbin/nologin /run/tres
_apt /usr/sbin/nologin /nonexistent
nobody /usr/sbin/nologin /nonexistent
systemd-network /usr/sbin/nologin /
systemd-timesync /usr/sbin/nologin /
dhcpcd /bin/false /usr/lib/dhcpcd
messagebus /usr/sbin/nologin /nonexistent
syslog /usr/sbin/nologin /nonexistent
systemd-resolve /usr/sbin/nologin /
uidd /usr/sbin/nologin /run/uidd
usbmux /usr/sbin/nologin /var/lib/usbmux
tss /bin/false /var/lib/tpm
systemd-oom /usr/sbin/nologin /
kernoops /usr/sbin/nologin /
whoopsie /bin/false /nonexistent
dnsmasq /usr/sbin/nologin /var/lib/misc
avahi /usr/sbin/nologin /run/avahi-daemon
tcpdump /usr/sbin/nologin /nonexistent
sssd /usr/sbin/nologin /var/lib/sss
speech-dispatcher /bin/false /run/speech-dispatcher
cups-pk-helper /usr/sbin/nologin /nonexistent
fwupd-refresh /usr/sbin/nologin /var/lib/fwupd
saned /usr/sbin/nologin /var/lib/saned
geoclue /usr/sbin/nologin /var/lib/geoclue
cups-browsed /usr/sbin/nologin /nonexistent
hplip /bin/false /run/hplip
gnome-remote-desktop /usr/sbin/nologin /var/lib/gnome-remote-desktop
polkitd /usr/sbin/nologin /
rtkit /usr/sbin/nologin /proc
colord /usr/sbin/nologin /var/lib/colord
gnome-initial-setup /bin/false /run/gnome-initial-setup/
gdm /bin/false /var/lib/gdm3
nm-openvpn /usr/sbin/nologin /var/lib/openvpn/chroot
prana2 /bin/bash /home/prana2
prana2@cis106:~/lab8$ awk -F":" '{print $1,$NF,$6}' /etc/passwd

```

```

The user _apt logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user nobody logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user systemd-network logs in with: /usr/sbin/nologin and its home directory is: /
The user systemd-timesync logs in with: /usr/sbin/nologin and its home directory is: /
The user dhcpcd logs in with: /bin/false and its home directory is: /usr/lib/dhcpcd
The user messagebus logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user syslog logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user systemd-resolve logs in with: /usr/sbin/nologin and its home directory is: /
The user uidd logs in with: /usr/sbin/nologin and its home directory is: /run/uidd
The user usbmux logs in with: /usr/sbin/nologin and its home directory is: /var/lib/usbmux
The user tss logs in with: /bin/false and its home directory is: /var/lib/tpm
The user systemd-oom logs in with: /usr/sbin/nologin and its home directory is: /
The user kernoops logs in with: /usr/sbin/nologin and its home directory is: /
The user whoopsie logs in with: /bin/false and its home directory is: /nonexistent
The user dnsmasq logs in with: /usr/sbin/nologin and its home directory is: /var/lib/misc
The user avahi logs in with: /usr/sbin/nologin and its home directory is: /run/avahi-daemon
The user tcpdump logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user sssd logs in with: /usr/sbin/nologin and its home directory is: /var/lib/sss
The user speech-dispatcher logs in with: /bin/false and its home directory is: /run/speech-dispatcher
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home directory is: /var/lib/fwupd
The user saned logs in with: /usr/sbin/nologin and its home directory is: /var/lib/saned
The user geoclue logs in with: /usr/sbin/nologin and its home directory is: /var/lib/geoclue
The user cups-browsed logs in with: /usr/sbin/nologin and its home directory is: /nonexistent
The user hplip logs in with: /bin/false and its home directory is: /run/hplip
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home directory is: /var/lib/gnome-remote-desktop
The user polkitd logs in with: /usr/sbin/nologin and its home directory is: /
The user rtkit logs in with: /usr/sbin/nologin and its home directory is: /proc
The user colord logs in with: /usr/sbin/nologin and its home directory is: /var/lib/colord
The user gnome-initial-setup logs in with: /bin/false and its home directory is: /run/gnome-initial-setup/
The user gdm logs in with: /bin/false and its home directory is: /var/lib/gdm3
The user nm-openvpn logs in with: /usr/sbin/nologin and its home directory is: /var/lib/openvpn/chroot
The user prana2 logs in with: /bin/bash and its home directory is: /home/prana2
prana2@cis106:~/lab8$ awk -F":" '{print "The user " $1,"logs in with: "$NF, "and its home directory is: "$6}' /etc/passwd

```

```
Nov 23 22:13
Tilix: prana2@cis106: ~/lab8

1: prana2@cis106: ~/lab8
dhcpcd=/bin/false
messagebus=/usr/sbin/nologin
syslog=/usr/sbin/nologin
systemd-resolve=/usr/sbin/nologin
uiddd=/usr/sbin/nologin
usbmux=/usr/sbin/nologin
tss=/bin/false
systemd-oom=/usr/sbin/nologin
kernoops=/usr/sbin/nologin
whoopste=/bin/false
dnsmasq=/usr/sbin/nologin
avahi=/usr/sbin/nologin
tcpdump=/usr/sbin/nologin
sssd=/usr/sbin/nologin
speech-dispatcher=/bin/false
cups-pk-helper=/usr/sbin/nologin
fwupd-refresh=/usr/sbin/nologin
saned=/usr/sbin/nologin
geoclue=/usr/sbin/nologin
cups-browsed=/usr/sbin/nologin
hplip=/bin/false
gnome-remote-desktop=/usr/sbin/nologin
polkitd=/usr/sbin/nologin
rtkit=/usr/sbin/nologin
colord=/usr/sbin/nologin
gnome-initial-setup=/bin/false
gdm=/bin/false
nm-openvpn=/usr/sbin/nologin
prana2=/bin/bash
_flatpak=/usr/sbin/nologin
prana2@cis106:~/lab8$ awk -F: '{print $1=" " $NF}' /etc/passwd | grep "/bin/bash"
root=/bin/bash
prana2=/bin/bash
prana2@cis106:~/lab8$ awk -F: '{print $1=" " $NF}' /etc/passwd | grep "/bin/bash" >> report_users.txt
prana2@cis106:~/lab8$ ls
file_report.txt  report_users.txt  report_user.txt
prana2@cis106:~/lab8$
```

Q4

```
Nov 23 22:24
Tilix: prana2@cis106: ~/lab8

1: prana2@cis106: ~/lab8
Honda Accord LX;29.5;4;98.00;68.00;2135.;16.6;78;Japan
Honda Civic 1500 gl;44.6;4;91.00;67.00;1850.;13.8;80;Japan
Honda Accord;32.4;4;107.0;72.00;2290.;17.0;80;Japan
Honda Civic 1300;35.1;4;81.00;60.00;1760.;16.1;81;Japan
Honda Prelude;33.7;4;107.0;75.00;2210.;14.4;81;Japan
Honda Accord;36.0;4;107.0;75.00;2205.;14.5;82;Japan
Honda Civic;38.0;4;91.00;67.00;1965.;15.0;82;Japan
Honda Civic (auto);32.0;4;91.00;67.00;1965.;15.7;82;Japan
prana2@cis106:~/lab8$ grep -i "honda" ~/Documents/Csv/cars.csv >> honda1.csv
prana2@cis106:~/lab8$ sed 's/;/,/g' honda1.csv
Honda Civic,24.0;4;120.0;97.00;2489.;15.0;74;Japan
Honda Civic CVCC,33.0;4;91.00;53.00;1795.;17.5;75;Japan
Honda Civic,33.0;4;91.00;53.00;1795.;17.4;76;Japan
Honda Accord CVCC,31.5;4;98.00;68.00;2045.;18.5;77;Japan
Honda Civic CVCC,36.1;4;91.00;60.00;1800.;16.4;78;Japan
Honda Accord LX,29.5;4;98.00;68.00;2135.;16.6;78;Japan
Honda Civic 1500 gl,44.6;4;91.00;67.00;1850.;13.8;80;Japan
Honda Accord,32.4;4;107.0;72.00;2290.;17.0;80;Japan
Honda Civic 1300,35.1;4;81.00;60.00;1760.;16.1;81;Japan
Honda Prelude,33.7;4;107.0;75.00;2210.;14.4;81;Japan
Honda Accord,36.0;4;107.0;75.00;2205.;14.5;82;Japan
Honda Civic,38.0;4;91.00;67.00;1965.;15.0;82;Japan
Honda Civic (auto),32.0;4;91.00;67.00;1965.;15.7;82;Japan
prana2@cis106:~/lab8$
```

```
Nov 23 23:28
Tilix: prana2@cis106: ~/Documents/Csv

1: prana2@cis106: ~/lab8
Honda_Civic,4,67.00
Honda_Civic (auto),4,67.00
Honda_Civic,4,97.00
Honda_Civic CVCC,4,53.00
Honda_Civic,4,53.00
Honda_Accord CVCC,4,68.00
Honda_Civic CVCC,4,68.00
Honda_Accord LX,4,68.00
Honda_Civic 1500 gl,4,67.00
Honda_Accord,4,72.00
Honda_Civic 1300,4,68.00
Honda_Prelude,4,75.00
Honda_Accord,4,75.00
Honda_Civic,4,67.00
Honda_Civic (auto),4,67.00
prana2@cis106:~/lab8$ awk -F"," 'NR > 1 {print $1,"",$3,"",$5}' honda2.csv | sed 's/ , /,/g' | sed 's/Honda/Honda/g' >> honda3.csv
prana2@cis106:~/lab8$ bat cat honda3.csv
Command 'bat' not found, but can be installed with:
sudo apt install bacula-console-qt
prana2@cis106:~/lab8$ bat cat honda3.csv
Command 'bat' not found, but can be installed with:
sudo apt install bacula-console-qt
prana2@cis106:~/lab8$ bat cat honda3.csv
QSocketNotifier: Can only be used with threads started with QThread
Copyright (C) 2007-2023 Kern Sibbald.

Version: 13.0.4 (12 February 2024) x86_64-pc-linux-gnu ubuntu 24.04

Usage: bat [-s] [-c config_file] [-d debug_level] [config_file]
-c <file> set configuration file to file
-dnn set debug level to nn
-s no signals
-t test - read configuration and exit
-? print this message.

prana2@cis106:~/lab8$
```

```
Nov 23 23:28
Tilix: prana2@cis106: ~/Documents/Csv

2: prana2@cis106: ~/Documents/Csv
Preparing to unpack .../bacula-common_13.0.4-1build3_amd64.deb ...
Adding user 'bacula'... Ok.
Unpacking bacula-common (13.0.4-1build3) ...
Selecting previously unselected package bacula-console-qt.
Preparing to unpack .../bacula-console-qt_13.0.4-1build3_amd64.deb ...
Unpacking bacula-console-qt (13.0.4-1build3) ...
Setting up bacula-common (13.0.4-1build3) .
..
Setting up bacula-console-qt (13.0.4-1build3) ...
Creating config file /etc/bacula/bat.conf with new version
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for desktop-file-utils (0.27-2build1) ...
prana2@cis106:~/Documents/Csv$ bat cat honda3.csv
QSocketNotifier: Can only be used with threads started with QThread
Copyright (C) 2007-2023 Kern Sibbald.

Version: 13.0.4 (12 February 2024) x86_64-pc-linux-gnu ubuntu 24.04

Usage: bat [-s] [-c config_file] [-d debug_level] [config_file]
-c <file> set configuration file to file
-dnn set debug level to nn
-s no signals
-t test - read configuration and exit
-? print this message.

prana2@cis106:~/Documents/Csv$ -t
-t: command not found
prana2@cis106:~/Documents/Csv$
```

```
Nov 23 22:20
Tilix: prana2@cis106: ~

1: prana2@cis106: ~/Documents/Csv
prana2@cis106:~/Documents/Csv$ grep -i "honda" ~/Documents/Csv/cars.csv > honda1.csv
prana2@cis106:~/Documents/Csv$ cat honda1.csv
Honda Civic;24.0;4;120.0;97.00;2489.;15.0;74;Japan
Honda Civic CVCC;33.0;4;91.00;53.00;1795.;17.5;75;Japan
Honda Civic;33.0;4;91.00;53.00;1795.;17.4;76;Japan
Honda Accord CVCC;31.5;4;98.00;68.00;2045.;18.5;77;Japan
Honda Civic CVCC;36.1;4;91.00;60.00;1800.;16.4;78;Japan
Honda Accord LX;29.5;4;98.00;68.00;2135.;16.6;78;Japan
Honda Civic 1500 gl;44.6;4;91.00;67.00;1850.;13.8;80;Japan
Honda Accord;32.4;4;107.0;72.00;2290.;17.0;80;Japan
Honda Civic 1300;35.1;4;81.00;60.00;1760.;16.1;81;Japan
Honda Prelude;33.7;4;107.0;75.00;2210.;14.4;81;Japan
Honda Accord;36.0;4;107.0;75.00;2205.;14.5;82;Japan
Honda Civic;38.0;4;91.00;67.00;1965.;15.0;82;Japan
Honda Civic (auto);32.0;4;91.00;67.00;1965.;15.7;82;Japan
prana2@cis106:~/Documents/Csv$

2: prana2@cis106: ~
prana2@cis106:~$ cd ~/Documents/csv/
bash: cd: /home/prana2/Documents/csv/: No such file or directory
prana2@cis106:~$ ls
cars-no-header.csv  Pictures
challenge-lab6     platanoseller
challenge-lab6     practice
cis106             practicels
cis106.zip         Public
Desktop            scripts
docs               snap
Documents          Templates
Downloads          tft.sh
'Final project '   Videos
lab5-audio-lab5-video website
lab6              website-lab5
lab8              website-lab5.zip
Music             wildcardpractice
pets.txt

prana2@cis106:~$ cat ~/lab8/honda1.csv
cat: /home/prana2/lab8/honda1.csv: No such file or directory
prana2@cis106:~$ cat ~/lab8/honda1.csv
cat: /home/prana2/lab8/honda1.csv: No such file or directory
prana2@cis106:~$
```

