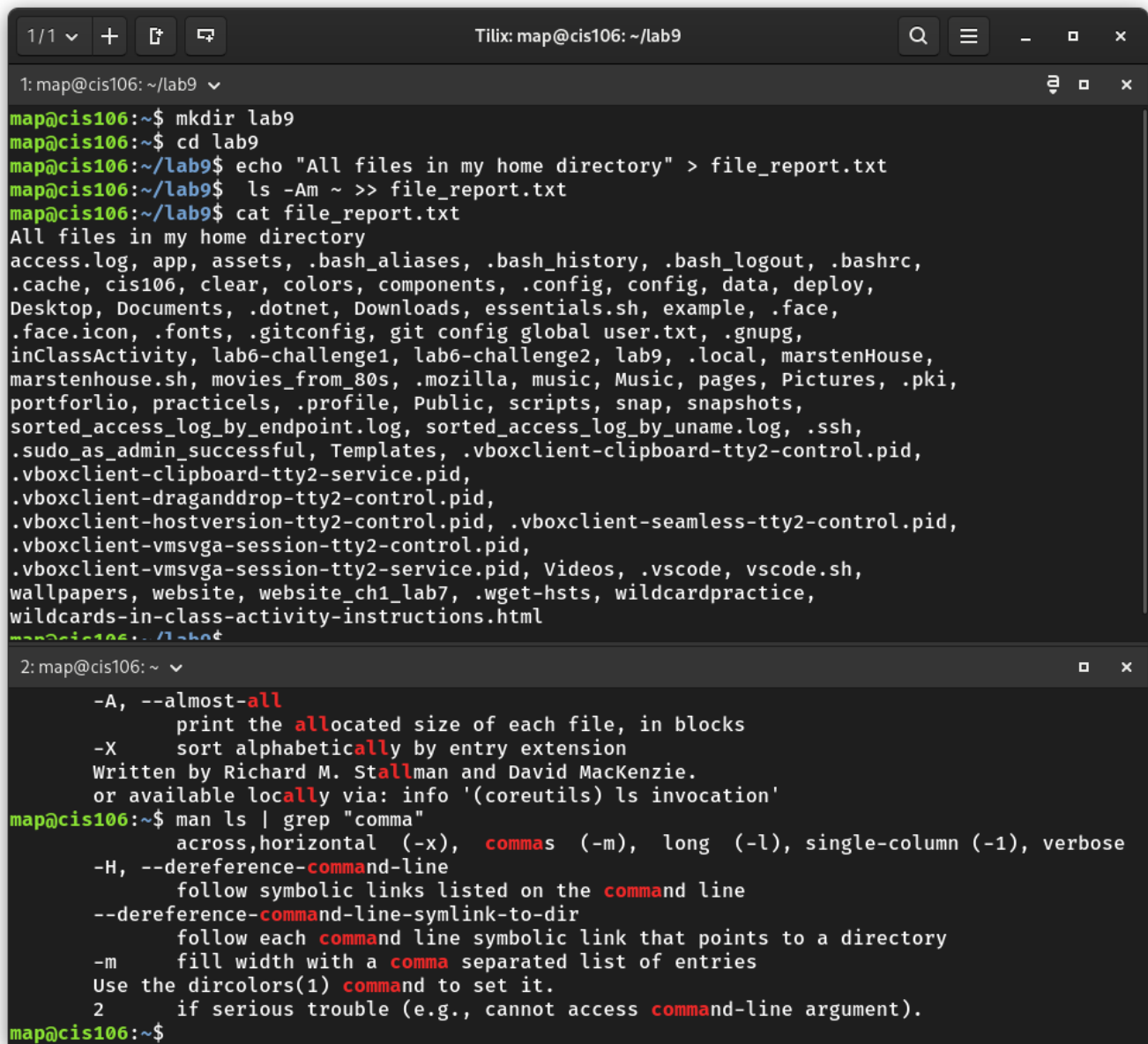


Lab9

Question 1



```
1/1 + [?] [x] Tilix: map@cis106: ~/lab9
1: map@cis106: ~/lab9
map@cis106:~$ mkdir lab9
map@cis106:~$ cd lab9
map@cis106:~/lab9$ echo "All files in my home directory" > file_report.txt
map@cis106:~/lab9$ ls -Am ~ >> file_report.txt
map@cis106:~/lab9$ cat file_report.txt
All files in my home directory
access.log, app, assets, .bash_aliases, .bash_history, .bash_logout, .bashrc,
.cache, cis106, clear, colors, components, .config, config, data, deploy,
Desktop, Documents, .dotnet, Downloads, essentials.sh, example, .face,
.face.icon, .fonts, .gitconfig, git config global user.txt, .gnupg,
inClassActivity, lab6-challenge1, lab6-challenge2, lab9, .local, marstenHouse,
marstenhouse.sh, movies_from_80s, .mozilla, music, Music, pages, Pictures, .pki,
portforlio, practicels, .profile, Public, scripts, snap, snapshots,
sorted_access_log_by_endpoint.log, sorted_access_log_by_uname.log, .ssh,
.sudo_as_admin_successful, Templates, .vboxclient-clipboard-tty2-control.pid,
.vboxclient-clipboard-tty2-service.pid,
.vboxclient-draganddrop-tty2-control.pid,
.vboxclient-hostversion-tty2-control.pid, .vboxclient-seamless-tty2-control.pid,
.vboxclient-vmsvga-session-tty2-control.pid,
.vboxclient-vmsvga-session-tty2-service.pid, Videos, .vscode, vscode.sh,
wallpapers, website, website_ch1_lab7, .wget-hsts, wildcardpractice,
wildcards-in-class-activity-instructions.html
map@cis106:~/lab9$

2: map@cis106: ~
-A, --almost-all
    print the allocated size of each file, in blocks
-X
    sort alphabetically by entry extension
Written by Richard M. Stallman and David MacKenzie.
or available locally via: info '(coreutils) ls invocation'
map@cis106:~$ man ls | grep "comma"
    across, horizontal (-x), commas (-m), long (-l), single-column (-1), verbose
-H, --dereference-command-line
    follow symbolic links listed on the command line
--dereference-command-line-symlink-to-dir
    follow each command line symbolic link that points to a directory
-m
    fill width with a comma separated list of entries
Use the dircolors(1) command to set it.
2
    if serious trouble (e.g., cannot access command-line argument).
map@cis106:~$ _
```

Question 2

```
1/1 + [ ] [ ] Tilix: map@cis106: ~/lab9 [Q] [≡] [-] [□] [×]
1: map@cis106: ~/lab9 [□] [×]
map@cis106:~/lab9$ echo "Total number of files in my home directory" >> file_report.txt
map@cis106:~/lab9$ ls -lA ~ | grep "^-" | wc -l
24
map@cis106:~/lab9$ ls -lA ~ | grep "^-" | wc -l >> file_report.txt
map@cis106:~/lab9$ echo "Total number of directories in my home directory" >> file_report.txt
map@cis106:~/lab9$ ls -lA ~ | grep "^d" | wc -l >> file_report.txt
map@cis106:~/lab9$ tail file_report.txt
.vboxclient-draganddrop-tty2-control.pid,
.vboxclient-hostversion-tty2-control.pid, .vboxclient-seamless-tty2-control.pid,
.vboxclient-vmsvga-session-tty2-control.pid,
.vboxclient-vmsvga-session-tty2-service.pid, Videos, .vscode, vscode.sh,
wallpapers, website, website_ch1_lab7, .wget-hsts, wildcardpractice,
wildcards-in-class-activity-instructions.html
Total number of files in my home directory
24
Total number of directories in my home directory
45
map@cis106:~/lab9$ _

2: map@cis106: ~ [□] [×]
map@cis106:~$ _
```

Question 3

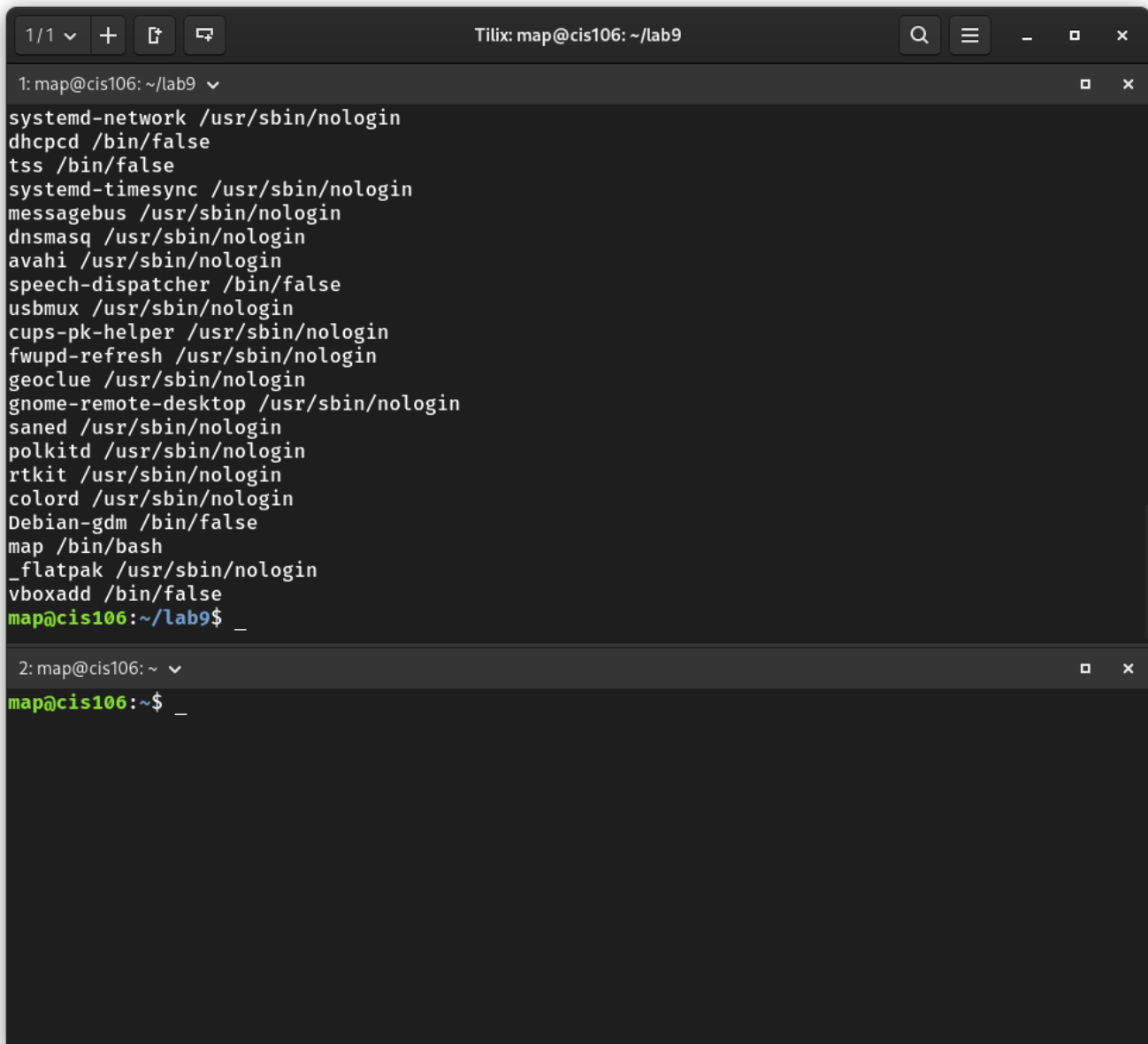
```
1/1 + [ ] Tmux: map@cis106: ~/lab9
1: map@cis106: ~/lab9
map@cis106:~/lab9$ awk -F":" '{print $1}' /etc/passwd
awk: cannot open "/etc/passwd" (No such file or directory)
map@cis106:~/lab9$ awk -F":" '{print $1}' /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
_apt
nobody
systemd-network
dhcpcd

2: map@cis106: ~
map@cis106:~$ _
```

```
1/1 + [ ] Tmux: map@cis106: ~/lab9
1: map@cis106: ~/lab9
map
_flatpak
vboxadd
map@cis106:~/lab9$ 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

2: map@cis106: ~
```

```
map@cis106:~$ _
```



The screenshot shows a Tilix terminal window with the title "Tilix: map@cis106: ~/lab9". The terminal displays a list of system services and their configurations, followed by a prompt to run a command in a new tab.

```
1: map@cis106: ~/lab9
systemd-network /usr/sbin/nologin
dhcpcd /bin/false
tss /bin/false
systemd-timesync /usr/sbin/nologin
messagebus /usr/sbin/nologin
dnsmasq /usr/sbin/nologin
avahi /usr/sbin/nologin
speech-dispatcher /bin/false
usbmux /usr/sbin/nologin
cups-pk-helper /usr/sbin/nologin
fwupd-refresh /usr/sbin/nologin
geoclue /usr/sbin/nologin
gnome-remote-desktop /usr/sbin/nologin
saned /usr/sbin/nologin
polkitd /usr/sbin/nologin
rtkit /usr/sbin/nologin
colord /usr/sbin/nologin
Debian-gdm /bin/false
map /bin/bash
_flatpak /usr/sbin/nologin
vboxadd /bin/false
map@cis106:~/lab9$ _
```

Below this, a new terminal tab is opened, showing the prompt:

```
2: map@cis106: ~
map@cis106:~$ _
```

```
Tilix: map@cis106: ~/lab9
1: map@cis106: ~/lab9
The user tss logs in with: /bin/false and its home dir is: /var/lib/tpm
The user systemd-timesync logs in with: /usr/sbin/nologin and its home dir is: /
The user messagebus logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user dnsmasq logs in with: /usr/sbin/nologin and its home dir is: /var/lib/misc
The user avahi logs in with: /usr/sbin/nologin and its home dir is: /run/avahi-daemon
The user speech-dispatcher logs in with: /bin/false and its home dir is: /run/speech-dispatcher
The user usbmux logs in with: /usr/sbin/nologin and its home dir is: /var/lib/usbmux
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home dir is: /var/lib/fwupd
The user geoclue logs in with: /usr/sbin/nologin and its home dir is: /var/lib/geoclue
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home dir is: /var/lib/gno
me-remote-desktop
The user saned logs in with: /usr/sbin/nologin and its home dir is: /var/lib/saned
The user polkitd logs in with: /usr/sbin/nologin and its home dir is: /
The user rtkit logs in with: /usr/sbin/nologin and its home dir is: /proc
The user colord logs in with: /usr/sbin/nologin and its home dir is: /var/lib/colord
The user Debian-gdm logs in with: /bin/false and its home dir is: /var/lib/gdm3
The user map logs in with: /bin/bash and its home dir is: /home/map
The user _flatpak logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user vboxadd logs in with: /bin/false and its home dir is: /var/run/vboxadd
map@cis106:~/lab9$ awk -F":" '{print "The user \"$1,\"logs in with: \"$NF,\"and its home dir is: \"
$6} ' /etc/passwd_

2: map@cis106: ~
map@cis106:~$ _
```

```
Tilix: map@cis106: ~/lab9
1: map@cis106: ~/lab9
avahi = /usr/sbin/nologin
speech-dispatcher = /bin/false
usbmux = /usr/sbin/nologin
cups-pk-helper = /usr/sbin/nologin
fwupd-refresh = /usr/sbin/nologin
geoclue = /usr/sbin/nologin
gnome-remote-desktop = /usr/sbin/nologin
saned = /usr/sbin/nologin
polkitd = /usr/sbin/nologin
rtkit = /usr/sbin/nologin
colord = /usr/sbin/nologin
Debian-gdm = /bin/false
map = /bin/bash
_flatpak = /usr/sbin/nologin
vboxadd = /bin/false
map@cis106:~/lab9$ awk -F":" '{print $1" = "$NF}' /etc/passwd | grep "/bin/bash"
root = /bin/bash
map = /bin/bash
map@cis106:~/lab9$ awk -F":" '{print $1" = "$NF}' /etc/passwd | grep "/bin/bash" >> report_user
s.txt
map@cis106:~/lab9$ _

2: map@cis106: ~
map@cis106:~$ _
```

```
Tilix: map@cis106: ~/lab9
1: map@cis106: ~/lab9
The user systemd-timesync logs in with: /usr/sbin/nologin and its home dir is: /
The user messagebus logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user dnsmasq logs in with: /usr/sbin/nologin and its home dir is: /var/lib/misc
The user avahi logs in with: /usr/sbin/nologin and its home dir is: /run/avahi-daemon
The user speech-dispatcher logs in with: /bin/false and its home dir is: /run/speech-dispatcher
The user usbmux logs in with: /usr/sbin/nologin and its home dir is: /var/lib/usbmux
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home dir is: /var/lib/fwupd
The user geoclue logs in with: /usr/sbin/nologin and its home dir is: /var/lib/geoclue
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home dir is: /var/lib/gnome-remote-desktop
The user saned logs in with: /usr/sbin/nologin and its home dir is: /var/lib/saned
The user polkitd logs in with: /usr/sbin/nologin and its home dir is: /
The user rtkit logs in with: /usr/sbin/nologin and its home dir is: /proc
The user colord logs in with: /usr/sbin/nologin and its home dir is: /var/lib/colord
The user Debian-gdm logs in with: /bin/false and its home dir is: /var/lib/gdm3
The user map logs in with: /bin/bash and its home dir is: /home/map
The user _flatpak logs in with: /usr/sbin/nologin and its home dir is: /nonexistent
The user vboxadd logs in with: /bin/false and its home dir is: /var/run/vboxadd
root = /bin/bash
map = /bin/bash
map@cis106:~/lab9$ cat report_users.txt_

2: map@cis106: ~
map@cis106:~$ _
```

Question 4

```
1: map@cis106: ~/lab9
map@cis106:~/lab9$ grep -i "honda" ~/Documents/sample_files/Csv/cars.csv > honda1.csv
map@cis106:~/lab9$ head -1 ~/Documents/sample_files/Csv/cars.csv > honda1.csv
map@cis106:~/lab9$ cat honda1.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
map@cis106:~/lab9$ grep -i "honda" ~/Documents/sample_files/Csv/cars.csv >> honda1.csv
map@cis106:~/lab9$ sed 's;/,/g' honda1.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
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
map@cis106:~/lab9$ sed 's;/,/g' honda1.csv > honda2.csv
map@cis106:~/lab9$ _

2: map@cis106: ~/Documents/sample_files/Csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
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
map@cis106:~/Documents/sample_files/Csv$ _

1: map@cis106: ~/lab9
Honda Accord;4,72.00
Honda Civic 1300;4,60.00
Honda Prelude;4,75.00
Honda Accord;4,75.00
Honda Civic;4,67.00
Honda Civic (auto);4,67.00
map@cis106:~/lab9$ awk -F";" 'NR > 1 {print $1,"",$3,"",$5}' honda2.csv | sed 's/ /,/g' | sed 's/Honda /Honda_/g' >> honda3.csv
map@cis106:~/lab9$ batcat honda3.csv
File: honda3.csv
1 model,cylinder,hp
2 Honda Civic,4,97.00
3 Honda Civic CVCC,4,53.00
4 Honda Civic,4,53.00
5 Honda Accord CVCC,4,68.00
6 Honda Civic CVCC,4,60.00
7 Honda Accord LX,4,68.00
8 Honda Civic 1500 gl,4,67.00
9 Honda Accord,4,72.00
10 Honda Civic 1300,4,60.00
11 Honda Prelude,4,75.00
12 Honda Accord,4,75.00
13 Honda Civic,4,67.00
14 Honda Civic (auto),4,67.00

map@cis106:~/lab9$ _

2: map@cis106: ~/Documents/sample_files/Csv
map@cis106:~/Documents/sample_files/Csv$ _
```