

## Q2

```
rkabir@cis106: ~  
rkabir@cis106:~$ cut -d ":" -f1 /etc/passwd  
root  
daemon  
bin  
sys  
sync  
games  
man  
lp  
n  
rkabir@cis106:~$ cut -d ":" -f1,7 /etc/passwd  
root:/bin/bash  
daemon:/usr/sbin/nologin  
bin:/usr/sbin/nologin  
sys:/usr/sbin/nologin  
sync:/bin/sync  
games:/usr/sbin/nologin  
man:/usr/sbin/nologin  
lp:/usr/sbin/nologin  
mail:/usr/sbin/nologin  
news:/usr/sbin/nologin  
uucp:/usr/sbin/nologin  
proxy:/usr/sbin/nologin  
www-data:/usr/sbin/nologin  
backup:/usr/sbin/nologin  
n  
rkabir@cis106:~$ cut -d "=" -f1,7 /etc/passwd  
root:x:0:0:root:/root:/bin/bash  
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin  
bin:x:2:2:bin:/bin:/usr/sbin/nologin  
sys:x:3:3:sys:/dev:/usr/sbin/nologin  
sync:x:4:65534:sync:/bin:/bin/sync  
games:x:5:60:games:/usr/games:/usr/sbin/nologin  
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin  
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin  
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin  
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin  
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin  
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin  
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin  
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin  
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin  
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin  
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin  
n
```

## Q3

```
rkabir@cis106: ~  
rkabir@cis106:~$ curl -s https://cis106.com/assets/shopping.md -o shopping.md  
rkabir@cis106:~$ curl -s https://cis106.com/assets/tasks.md -o task.md  
rkabir@cis106:~$ ls  
challenge-Lab6  fall122          lab5-docs  Pictures      Templates  
CIS106          final            lab5-imgs  Public        touch  
Desktop         lab4files        lab5-video shopping.md   Videos  
doc.txt         lab-5            lab6       site.html     Wallpapers  
Documents       lab5-audio       lab6-q5    snap  
Downloads       lab5ChallengeQuestion Music       task.md  
rkabir@cis106:~$ pas  
passwd         paste           pasteurize  pasuspender  
rkabir@cis106:~$ pas  
passwd         paste           pasteurize  pasuspender  
rkabir@cis106:~$ paste shopping.md task.md  
## Shopping    ## Tasks  
1. Apples:     1. Do Laundry:  
2. Meat:       2. Cook lunch:  
3. Bread:      3. Clean room:  
rkabir@cis106:~$ wc Documents//Books/dracula.txt  
15860 164386 881251 Documents//Books/dracula.txt  
rkabir@cis106:~$ sort /etc/passwd  
sort: cannot read: /etc/passwd: No such file or directory  
rkabir@cis106:~$ sort /etc/passwd  
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin  
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/  
nologin  
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin  
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
```

Q4

```
rkabir@cis106:~$ ls Documents/Csv/
cars.csv cereal.csv contacts.csv country.csv film.csv
rkabir@cis106:~$ tr ':' ',' Documents/Csv/cereal.csv
tr: extra operand 'Documents/Csv/cereal.csv'
Try 'tr --help' for more information.
rkabir@cis106:~$ cat Documents/Csv/cereal.csv | tr ':' ','
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;she
lf;weight;cups;rating
String;Categorical;Categorical;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float
;Float;Float
100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973
100% Natural Bran;Q;C;120;3;5;15;2;8;8;135;0;3;1;1;33.983679
All-Bran;K;C;70;4;1;260;9;7;5;320;25;3;1;0.33;59.425505
All-Bran with Extra Fiber;K;C;50;4;0;140;14;8;0;330;25;3;1;0.5;93.704912
Almond Delight;R;C;110;2;2;200;1;14;8;-1;25;3;1;0.75;34.384843
Apple Cinnamon Cheerios;G;C;110;2;2;180;1.5;10.5;10;70;25;1;1;0.75;29.509541
Apple Jacks;K;C;110;2;0;125;1;11;14;30;25;2;1;1;33.174094
Basic 4;G;C;130;3;2;210;2;18;8;100;25;3;1.33;0.75;37.038562
Bran Chex;R;C;90;2;1;200;4;15;6;125;25;1;1;0.67;49.120253
```

```
rkabir@cis106:~/Documents/Books$ grep -i "love" pride-and-prejudice.txt
that he _may_ fall in love with one of them, and therefore you
persuade you at last. I was sure you loved your girls too well to
anything. Lydia, my love, though you _are_ the youngest, I dare
be fond of dancing was a certain step towards falling in love;
first, and was in a way to be very much in love; but she
who have heart enough to be really in love without encouragement.
secure of him, there will be leisure for falling in love as
love, from love to matrimony, in a moment. I knew you would be
Well, Jane, make haste and tell us; make haste, my love."
a gentleman at my brother Gardiner's in town so much in love with her,
love!"
```

```
rkabir@cis106:~/Documents/Books$
rkabir@cis106:~/Documents/Books$ grep -Ew "love|hate" pride-and-prejudice.txt
that he _may_ fall in love with one of them, and therefore you
anything. Lydia, my love, though you _are_ the youngest, I dare
be fond of dancing was a certain step towards falling in love;
"Come, Darcy," said he, "I must have you dance. I hate to see you
first, and was in a way to be very much in love; but she
who have heart enough to be really in love without encouragement.
secure of him, there will be leisure for falling in love as
love, from love to matrimony, in a moment. I knew you would be
Well, Jane, make haste and tell us; make haste, my love."
a gentleman at my brother Gardiner's in town so much in love with her,
love!"
"I have been used to consider poetry as the _food_ of love," said
"Of a fine, stout, healthy love it may. Everything nourishes what
```

```
rkabir@cis106:~/Documents/Csv$ awk -F ; {print $1,$NF} cars.csv
awk: option -F lacks argument
{print $1,$NF}: command not found
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1,$NF}' cars.csv
CarOrigin
STRINGCAT
Chevrolet Chevelle MalibuUS
Buick Skylark 320US
Plymouth SatelliteUS
AMC Rebel SSTUS
Ford TorinoUS
Ford Galaxie 500US
Chevrolet ImpalaUS
Plymouth Fury iiiUS
Pontiac CatalinaUS
AMC Ambassador DPLUS
Citroen DS-21 PallasEurope
Chevrolet Chevelle Concours (sw)US
Ford Torino (sw)US
Plymouth Satellite (sw)US
Chevy S-10US
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{OFS=" is made on "}{print $1,$NF}' cars.csv
CarOrigin
STRINGCAT
Chevrolet Chevelle MalibuUS
Buick Skylark 320US
Plymouth SatelliteUS
AMC Rebel SSTUS
Ford TorinoUS
Ford Galaxie 500US
Chevrolet ImpalaUS
Plymouth Fury iiiUS
Pontiac CatalinaUS
AMC Ambassador DPLUS
Citroen DS-21 PallasEurope
The Volkswagen Pickup has 4 cylinders and is made on Europe
The Dodge Rampage has 4 cylinders and is made on US
The Ford Ranger has 4 cylinders and is made on US
The Chevy S-10 has 4 cylinders and is made on US
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print "The",$1,"has",$3,"cylinders",
"and is made on",$NF}' cars.csv
```

Q6

```
rkabir@cis106:~/Documents/Csv$ awk -F; {print $1.$NF} cars.csv
awk: option -F lacks argument
{print $1.$NF}: command not found
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1.$NF}' cars.csv
CarOrigin
STRINGCAT
Chevrolet Chevelle MalibuUS
Buick Skylark 320US
Plymouth SatelliteUS
AMC Rebel SSTUS
Ford TorinoUS
Ford Galaxie 500US
Chevrolet ImpalaUS
Plymouth Fury iiiUS
Pontiac CatalinaUS
AMC Ambassador DPLUS
Citroen DS-21 PallasEurope
Chevrolet Chevelle Concours (sw)US
Ford Torino (sw)US
Plymouth Satellite (sw)US
```

```
rkabir@cis106:~/Documents/Csv$ awk -F; {print $1.$NF} cars.csv
awk: option -F lacks argument
{print $1.$NF}: command not found
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1.$NF}' cars.csv
CarOrigin
STRINGCAT
Chevrolet Chevelle MalibuUS
Buick Skylark 320US
Plymouth SatelliteUS
AMC Rebel SSTUS
Ford TorinoUS
Ford Galaxie 500US
Chevrolet ImpalaUS
Plymouth Fury iiiUS
Pontiac CatalinaUS
AMC Ambassador DPLUS
Citroen DS-21 PallasEurope
Chevrolet Chevelle Concours (sw)US
Ford Torino (sw)US
Plymouth Satellite (sw)US
```

```
rkabir@cis106:~/Documents/Csv$ awk -F; {print $1.$NF} cars.csv
awk: option -F lacks argument
{print $1.$NF}: command not found
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1.$NF}' cars.csv
CarOrigin
STRINGCAT
Chevrolet Chevelle MalibuUS
Buick Skylark 320US
Plymouth SatelliteUS
AMC Rebel SSTUS
Ford TorinoUS
Ford Galaxie 500US
Chevrolet ImpalaUS
Plymouth Fury iiiUS
Pontiac CatalinaUS
AMC Ambassador DPLUS
Citroen DS-21 PallasEurope
Chevrolet Chevelle Concours (sw)US
Ford Torino (sw)US
Plymouth Satellite (sw)US
```



## Challenge

```
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
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1}' cereal.csv
awk: cannot open cereal.csv (No such file or directory)
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1}' cereal.csv
name
String
100% Bran
100% Natural Bran
All-Bran
```

```
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1,$4}' cereal.csv
name calories
String Int
100% Bran 70
100% Natural Bran 120
All-Bran 70
All-Bran with Extra Fiber 50
Almond Delight 110
Apple Cinnamon Cheerios 110
Apple Jacks 110
Basic 4 130
Bran Chex 90
Bran Flakes 90
```

```
rkabir@cis106:~/Documents/Csv$ awk -F ";" '{print $1,$4}' cereal.csv
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;she
f;weight;cups;rating
String;Categorical;Categorical;Int;Int;Int;Int;Float;Float;Int;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
ll-Bran;K;C;70;4;1;260;9;7;5;320;25;3;1;0.33;59.425505
ll-Bran with Extra Fiber;K;C;50;4;0;140;14;8;0;330;25;3;1;0.5;93.704912
lmond Delight;R;C;110;2;2;200;1;14;8;-1;25;3;1;0.75;34.384843
pple Cinnamon Cheerios;G;C;110;2;2;180;1.5;10.5;10;70;25;1;1;0.75;29.509541
pple Jacks;K;C;110;2;0;125;1;11;14;30;25;2;1;1;33.174094
asic 4;G;C;130;3;2;210;2;18;8;100;25;3;1.33;0.75;37.038562
```