lab7

q1

```
islam@islamlinux:/usr/share/icons/default$ ls -R ~/cis106
/home/islam/cis106:
 final   labs  'weekly report'

/home/islam/cis106/final:
 2023-10-25_16-55.png    DatabaseSecurity.png      installMysql.png    restartApache.png
 checkIfItWorks.png      extracting.png            installPhp.png      sqlDataBase.png
 'check ip.png'          installingWordpress.png   renaming.png        userPassDataBase.png

/home/islam/cis106/labs:
lab1  lab2  lab3  lab4

/home/islam/cis106/labs/lab1:
johndoeinfo.txt      johndoeresmue.md   settings.json      vscode                          what_is_ubuntu_submission.md
johndoe.jpeg         johndoeresmue.pdf  ubuntu-desktop.png  what-is-ubuntu.pdf             what_is_ubuntu_submission.pd
johndoeresmue.html   resume.png         ubuntu-logo.png     what_is_ubuntu_submission.html  whatisubuntu.txt

/home/islam/cis106/labs/lab2:
2023-09-22_02-32.png  2023-09-22_02-36.png  lab2.md   lab2.pdf

/home/islam/cis106/labs/lab3:
 datecommand.png    lab3.md    lab3.pdf  'ubuntu system.png'  'Untitled 1.odp'  'Untitled 1.pdf'

/home/islam/cis106/labs/lab4:
q1.png   q2.1.png   q2.png

'/home/islam/cis106/weekly report':
'week 2'

'/home/islam/cis106/weekly report/week 2':
2023-09-22_17-08.png
```

```
islam@islamlinux:~$ tac /etc/passwd
mysql:x:130:139:MySQL Server,,,:/nonexistent:
_flatpak:x:129:138:Flatpak system-wide instal
sbin/nologin
islam:x:1000:1000:islam,,,:/home/islam:/bin/b
gdm:x:128:134:Gnome Display Manager:/var/lib/
```

```
islam@islamlinux:~$ cat -nE /etc/passwd
     1   root:x:0:0:root:/root:/bin/bash$
     2   daemon:x:1:1:daemon:/usr/sbin:/usr/sbin
     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
     7   man:x:6:12:man:/var/cache/man:/usr/sbin
```

```
islam@islamlinux:~$ head -5 /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
islam@islamlinux:~$ tail -5 /etc/passwd
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
islam:x:1000:1000:islam,,,:/home/islam:/bin/bash
_flatpak:x:129:138:Flatpak system-wide installation helper,,,:/nonexistent:/usr/
sbin/nologin
mysql:x:130:139:MySQL Server,,,:/nonexistent:/bin/false
islam@islamlinux:~$ 
```

q2

```
islam@islamlinux:~$ cut -d":" -f1 /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
```

```
islam@islamlinux:~$ cut -d":" -f1,6 /etc/passwd
root:/root
daemon:/usr/sbin
bin:/bin
sys:/dev
```

```
islam@islamlinux:~$ cut -d":" -f1,7 --output-delimiter=" = " /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
```

```
mysql = /bin/false
islam@islamlinux:~$ cut -d":" -f1,2,4,5,6,7 /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
```

q3

```
islam@islamlinux:~$ curl -s https://cis106.com/assets/shopping.txt -o shopping.t
xt
islam@islamlinux:~$ curl -s https://cis106.com/assets/tasks.txt -o tasks.txt
islam@islamlinux:~$ wc -l Documents/Books/dracula.txt
15845 Documents/Books/dracula.txt
islam@islamlinux:~$ wc Documents/Books/dracula.txt
 15845 164354 890196 Documents/Books/dracula.txt
islam@islamlinux:~$ wc -W Documents/Books/dracula.txt
wc: invalid option -- 'W'
Try 'wc --help' for more information.
islam@islamlinux:~$ wc -w Documents/Books/dracula.txt
164354 Documents/Books/dracula.txt
islam@islamlinux:~$ wc -w Documents/Books/pride-and-prejudice.txt
130412 Documents/Books/pride-and-prejudice.txt
islam@islamlinux:~$ sort /etc/passwd
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/
nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
```

q4

```
islam@islamlinux:~/Documents/Csv$ cat cereal.csv | tr ';' ','
name,mfr,type,calories,protein,fat,sodium,fiber,carbo,sugars,potass,vitamins,sl
t,cups,rating
String,Categorical,Categorical,Int,Int,Int,Int,Float,Float,Int,Int,Int,Int,Flo
oat
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
```

```
islam@islamlinux:~/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
```

```
islam@islamlinux:~/Documents/Books$ grep -ni "love\|hate"  pride-and-prejudice.txt
:by allowance" and "loving with personal love." This distinction applies
03:to their best work than in the case of those others who are loved "by
05:proper thing to love them. And in the sect--fairly large and yet
3:All the minor passages--the loves of Jane and Bingley, the advent of Mr.
6:aversion to actual love. I do not know whether the all-grasping hand of
6:his falling in love at all is not extremely probable. Here again I
8:injured in disposition, and thoroughly in love. As for his being in
9:love, Elizabeth has given as just an exposition of the causes of that
1:anybody who can read between lines will not find the lovers'
0:ladies with whom it might be a pleasure to fall in love; there are at
4:Grant. I should have been most in love with Beatrix and Argemone; I
5:"So much love and eloquence"                                          156
6:_may_ fall in love with one of them, and therefore you must visit him as
1:persuade you at last. I was sure you loved your girls too well to
```

```
1: islam@islamlinux: ~/Documents/Books ∨
islam@islamlinux:~/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."
islam@islamlinux:~/Documents/Books$ grep -E "^[A-Z]^[0-9]" dracula.txt
islam@islamlinux:~/Documents/Books$ grep -E "^[A-Z]^[0-9]" dracula.txt
islam@islamlinux:~/Documents/Books$ grep "^[A-Z\|0-9]" 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
```

q5

```
mlinux:~/Documents/Books$ awk -F';' '{print $1,$NF}' ../Csv/cars.csv


Chevelle Malibu US
ark 320 US
```

```
islam@islamlinux:~/Documents/Books$ awk -F';' '{OFS=" made in " } {print $1,$NF}' ../Csv
/cars.csv
Car made in Origin
STRING made in CAT
Chevrolet Chevelle Malibu made in US
Buick Skylark 320 made in US
Plymouth Satellite made in US
AMC Rebel SST made in US
Ford Torino made in US
Ford Galaxie 500 made in US
Chevrolet Impala made in US
Plymouth Fury iii made in US
Pontiac Catalina made in US
AMC Ambassador DPL made in US
Citroen DS-21 Pallas made in Europe
Chevrolet Chevelle Concours (sw) made in US
Ford Torino (sw) made in US
Plymouth Satellite (sw) made in US
AMC Rebel SST (sw) made in US
Dodge Challenger SE made in US
Plymouth 'Cuda 340 made in US
Ford Mustang Boss 302 made in US
```

```
islam@islamlinux:~/Documents/Books$ awk -F';' '{print "the ",$1," has cylinders ",$3,
and is made in " ,$NF}' ../Csv/cars.csv
the  Car  has cylinders  Cylinders  and is made in  Origin
the  STRING  has cylinders  INT  and is made in  CAT
the  Chevrolet Chevelle Malibu  has cylinders  8  and is made in  US
the  Buick Skylark 320  has cylinders  8  and is made in  US
the  Plymouth Satellite  has cylinders  8  and is made in  US
```

```
islam@islamlinux:~/Documents/Books$ awk 'NR > 3 {print}' ../Csv/cars.csv
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
```

```
Archive Foundation, how to help produce our new eBooks, and how to
subscribe to our email newsletter to hear about new eBooks.


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

```
Most people start at our website which has the main PG search
facility: www.gutenberg.org

This website includes information about Project Gutenberg-tm,
including how to make donations to the Project Gutenberg Literary
Archive Foundation, how to help produce our new eBooks, and how to
subscribe to our email newsletter to hear about new eBooks.
islam@islamlinux:~/Documents/Books$ sed '/^$/d' pride-and-prejudice.txt
```

q6

```
islam@islamlinux:~$ grep "/bin/bash" /etc/passwd | wc -l
2
islam@islamlinux:~$ grep "/sbin/nologin" /etc/passwd | wc -l
40
islam@islamlinux:~$ grep -i "ford" Documents/Csv/cars.csv | wc -l
53
islam@islamlinux:~$ grep -i "????" Documents/Books/bible.txt | wc -l
0
islam@islamlinux:~$ grep -i "love" Documents/Books/bible.txt | wc -l
546
islam@islamlinux:~$ grep "????" Documents/Books/bible.txt | wc -l
0
islam@islamlinux:~$ grep -iE "????" Documents/Books/bible.txt | wc -l
31102
islam@islamlinux:~$ █
```

challenge

```
islam@islamlinux:~$ awk -F';' 'NR > 3 {print $1}' Documents/Csv/cereal.csv
100% Natural Bran
All-Bran
All-Bran with Extra Fiber
Almond Delight
Apple Cinnamon Cheerios
Apple Jacks
Basic 4
```

```
wheaties honey Gold
islam@islamlinux:~$ awk -F';' 'NR > 3 {print $1}' Documents/Csv/cereal.csv | sort
100% Natural Bran
All-Bran
All-Bran with Extra Fiber
Almond Delight
Apple Cinnamon Cheerios
Apple Jacks
Basic 4
Bran Chex
Bran Flakes
Cap'n'Crunch
Cheerios
Cinnamon Toast Crunch
Clusters
```

```
slam@islamlinux:~$ awk -F';' 'NR > 3 {print $1$4}' Documents/Csv/cereal.csv
00% Natural Bran120
ll-Bran70
ll-Bran with Extra Fiber50
lmond Delight110
pple Cinnamon Cheerios110
pple Jacks110
asic 4130
ran Chex90                                    6 / 6
ran Flakes90
ap'n'Crunch120
heerios110
innamon Toast Crunch120
lusters110
ocoa Puffs110
orn Chex110
orn Flakes100
orn Pops110
ount Chocula110
racklin' Oat Bran110
ream of Wheat (Quick)100
rispix110
rispy Wheat & Raisins100
```