

Lab 7

Question 1

q1.1

```

edison@cis106: ~/Documents/Csv
edison@cis106:~/Documents$ cd Csv/
edison@cis106:~/Documents/Csv$ ls
cars.csv  cereal.csv  contacts.csv  country.csv  film.csv
edison@cis106:~/Documents/Csv$ cat 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;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

```

q1.2

```

100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973
String;Categorical;Categorical;Int;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;shelf;weight;cups;rating
edison@cis106:~/Documents/Csv$

```

q1.3

```

100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973
String;Categorical;Categorical;Int;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;shelf;weight;cups;rating
edison@cis106:~/Documents/Csv$ cat -nEv cereal.csv
1  name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;shelf;weight;cups;rating^M$
2  String;Categorical;Categorical;Int;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float^M$
3  100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973^M$

```

q1.4

```

edison@cis106:~/Documents/Csv$ head -n 2 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;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float
edison@cis106:~/Documents/Csv$ tail -n 2 cereal.csv
Wheaties;G;C;100;3;1;200;3;17;3;110;25;1;1;1;51.592193
Wheaties Honey Gold;G;C;110;2;1;200;1;16;8;60;25;1;1;0.75;36.187559
edison@cis106:~/Documents/Csv$

```

Question 2

q2.1

```
edison@cis106:~/Documents/Csv$ head -n 1 cars.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
edison@cis106:~/Documents/Csv$ cut -d ";" -f1 cars.csv
Car
STRING
Chevrolet Chevelle Malibu
Buick Skylark 320
Plymouth Satellite
AMC Rebel SST
Ford Torino
Ford Galaxie 500
Chevrolet Impala
```

q2.2

```
edison@cis106:~/Documents/Csv$ cut -d ";" -f1,3 cars.csv
Car;Cylinders
STRING;INT
Chevrolet Chevelle Malibu;8
Buick Skylark 320;8
Plymouth Satellite;8
AMC Rebel SST;8
```

q2.3

```
Chevrolet Camaro = 4
Ford Mustang GL = 4
Volkswagen Pickup = 4
Dodge Rampage = 4
Ford Ranger = 4
Chevy S-10 = 4
```

```
edison@cis106:~/Documents/Csv$ cut -d";" -f1,3 cars.csv --output-delimiter='='
```

q2.4

```
Volvo 244DL;22.0;4;121.0;98.00;2945.;14.5;75;Europe
Volvo 245;20.0;4;130.0;102.0;3150.;15.7;76;Europe
Volvo 264gl;17.0;6;163.0;125.0;3140.;13.6;78;Europe
Volvo Diesel;30.7;6;145.0;76.00;3160.;19.6;81;Europe
edison@cis106:~/Documents/Csv$ sort cars.csv
```

q2.5

```
Shredded Wheat spoon size;N;C;90;3;0;0;3;20;0;120;0;1;1;0.67;72.801787
Shredded Wheat 'n'Bran;N;C;90;3;0;0;4;19;0;140;0;1;1;0.67;74.472949
Nutri-grain Wheat;K;C;90;3;0;170;3;18;2;90;25;3;1;1;59.642837
Bran Flakes;P;C;90;3;0;210;5;13;5;190;25;3;1;0.67;53.313813
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;shelf;weight;country
String;Categorical;Categorical;Int;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float
edison@cis106:~/Documents/Csv$ sort -t";" -k4 cereal.csv
```

Question 3

q3.1

```
edison@cis106:~/Documents/Books$ grep "War" war-and-peace.txt
The Project Gutenberg eBook of War and Peace, by Leo Tolstoy
Title: War and Peace
the Minister of War."
in to the Minister of War. Five minutes later he returned and bowing
corridor to the cabinet where the Minister of War was at work. The
narrowed disdainfully, he entered the room of the Minister of War with
interested the Minister of War less than any of the other matters he was
indifferent hands of the Minister of War and the polite adjutant. The
```

q3.2

```
"The path to Warsaw, perhaps," Prince Hippolyte remarked loudly and
unexpectedly. Everybody looked at him, understanding what he meant.
--
Chichagóv, one of the most zealous "cutters-off" and "breakers-up," who
had first wanted to effect a diversion in Greece and then in Warsaw but
never wished to go where he was sent: Chichagóv, noted for the boldness
edison@cis106:~/Documents/Books$ grep -l "War" war-and-peace.txt
```

q3.3

```
edison@cis106:~/Documents/Books$ grep -lc "War" war-and-peace.txt
29
edison@cis106:~/Documents/Books$ grep -lwc "War" war-and-peace.txt
24
edison@cis106:~/Documents/Books$
```

q3.4

```

edison@cis106:~/Documents/Books$ grep -lc "War" war-and-peace.txt
29
edison@cis106:~/Documents/Books$ grep -lwc "War" war-and-peace.txt
24
edison@cis106:~/Documents/Books$ grep -l "^peace" war-and-peace.txt
of how to get away quickly to her own room to make out the problem in
peace. The old man was beside himself: moved the chair on which he was
sitting noisily backward and forward, made efforts to control himself
--
from this distressful life, and leads it to its place of recompense and
peace."
--
a good voice, young, and in nobody's way if only they leave her in
peace." But however much they left her in peace she could not now be
at peace, and immediately felt this.
--
Balashëv, the Emperor repeated to him the words that he would not make
peace so long as a single armed enemy remained on Russian soil and told
him to transmit those words to Napoleon. Alexander did not insert them
--
be of no use to you; they are worth nothing and have shown it by making
peace with you. As for the Swedes—it is their fate to be governed by
mad kings. Their king was insane and they changed him for
--
others as ninety-nine to one, consisted of men who desired neither
peace nor war, neither an advance nor a defensive camp at the Drissa
or anywhere else, neither Barclay nor the Emperor, neither Pfuel nor
--
Freemasons to which he was bound by oath and which preached perpetual
peace and the abolition of war, and secondly, by the fact that when he
saw the great mass of Muscovites who had donned uniform and were talking
--
On returning to France, to the bosom of the great, strong, magnificent,
peaceful, and glorious fatherland, I should have proclaimed
her frontiers immutable; all future wars purely defensive, all
--
herself incompetent, but in the depths of her soul she felt at peace—a
peace arising from consciousness of having stifled those personal dreams
and hopes that had been on the point of awakening within her and were
--
Moscow is not the loss of Russia. In reply to Lauriston's proposal of
peace, he said: There can be no peace, for such is the people's will. He
alone during the retreat of the French said that all our maneuvers are
--
possible from places where people were killing one another, to some
peaceful refuge where he could recover himself, rest, and think over
all the strange new facts he had learned; but on reaching Orël he
edison@cis106:~/Documents/Books$ grep -ln "^peace" war-and-peace.txt
5541-of how to get away quickly to her own room to make out the problem in
5542:peace. The old man was beside himself: moved the chair on which he was
5543-sitting noisily backward and forward, made efforts to control himself
--
20045-from this distressful life, and leads it to its place of recompense and
20046:peace."
20047-
--
26470-a good voice, young, and in nobody's way if only they leave her in
26471:peace." But however much they left her in peace she could not now be
26472-at peace, and immediately felt this.

```

q3.5

```

65544:The more this field of motion spreads out before our eyes, the more
65561:The search for these laws has long been begun and the new methods of
65622:The struggle between the old views and the new was long and stubbornly
65963:The Project Gutenberg Literary Archive Foundation is a non-profit
65971:The Foundation's business office is located at 809 North 1500 West,
65987:The Foundation is committed to complying with the laws regulating
edison@cis106:~/Documents/Books$ grep -nw "^The" war-and-peace.txt

```

q3.6

```
edison@cis106:~/Documents/Books$ grep -Rwi "love" ./
./pride-and-prejudice.txt:by allowance" and "loving with personal love." This distinction applies
./pride-and-prejudice.txt:proper thing to love them. And in the sect--fairly large and yet
./pride-and-prejudice.txt:aversion to actual love. I do not know whether the all-grasping hand of
./pride-and-prejudice.txt:his falling in love at all is not extremely probable. Here again I
./pride-and-prejudice.txt:injured in disposition, and thoroughly in love. As for his being in
./pride-and-prejudice.txt:love, Elizabeth has given as just an exposition of the causes of that
```

q3.7

```
edison@cis106:~/Documents/Books$ grep -n "^l...d" ./
grep: ./: Is a directory
edison@cis106:~/Documents/Books$ grep -nR "^l...d" ./
./pride-and-prejudice.txt:1720:liked a red coat myself very well--and, indeed, so I do still at my
./pride-and-prejudice.txt:9474:lived. Not like the wild young men now-a-days, who think of nothing but
./pride-and-prejudice.txt:10016:loved her, but for loving her still well enough to forgive all the
./pride-and-prejudice.txt:13948:liked him but Jane; and even feared that with the others it was a
./dracula.txt:5507:lay down, and when I went over to Bersierke he let me stroke his nose
```

q3.8

```
edison@cis106:~/Documents/Books$ grep -wniR "^d[aeiou]..." ./
./pride-and-prejudice.txt:420:Darcy; nearly all of them would have palpitated and fluttered at the
./pride-and-prejudice.txt:1022:dance."
./pride-and-prejudice.txt:1036:Darcy, looking at the eldest Miss Bennet.
./pride-and-prejudice.txt:1110:dear, to have given him one of your set-downs. I quite detest the man."
./pride-and-prejudice.txt:1399:dark. There is so much of gratitude or vanity in almost every
./pride-and-prejudice.txt:1851:dirty weather, and by herself, was almost incredible to Mrs. Hurst and
./pride-and-prejudice.txt:2221:Darcy only smiled, and the general noise which ensued made Elizabeth
```

q3.9

```
necessarily keep eBooks in compliance with any particular paper
edison@cis106:~/Documents/Books$ grep -iE "a{2}" dracula.txt
help me deck the room with my garlic, which is all the way from Haarlem,
Haarlem. To-night Dr. Van Helsing is going away, as he has to be for a
edison@cis106:~/Documents/Books$
```