## Lab 7

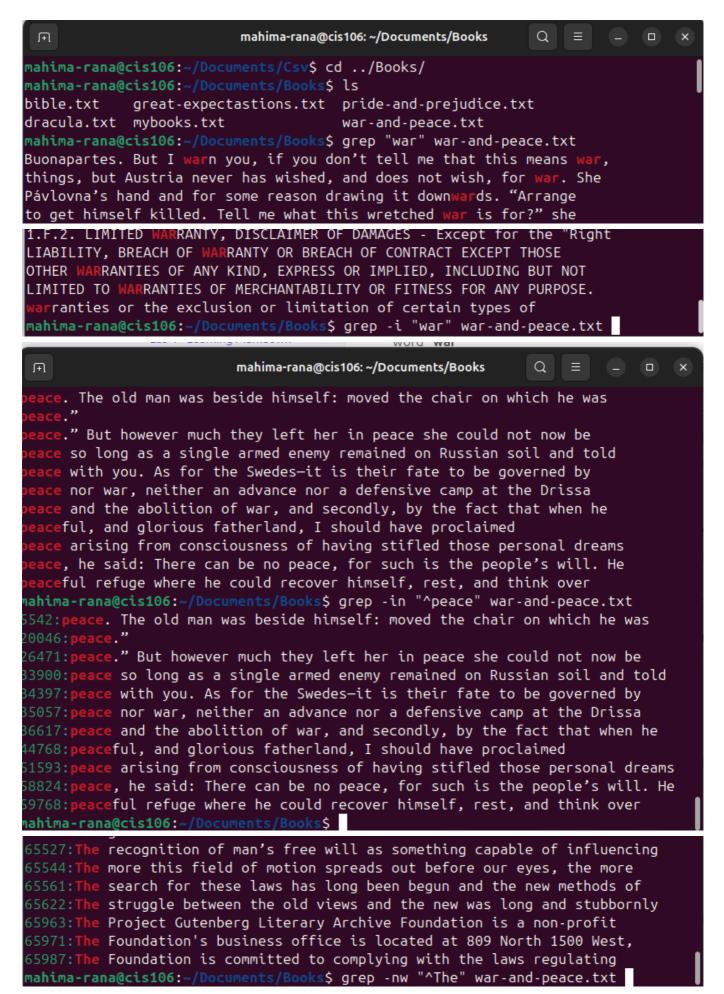
## Question 1

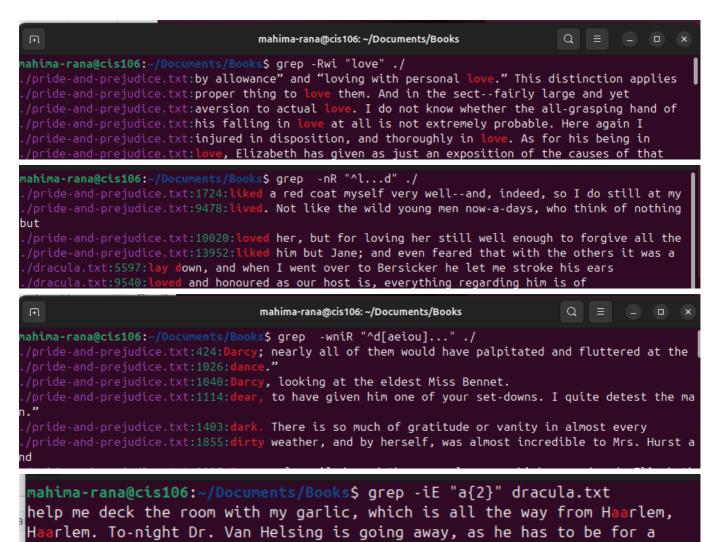
```
mahima-rana@cis106: ~/Documents/Csv
                                                             Q
 F
mahima-rana@cis106:~/Documents$ cd Csv/
mahima-rana@cis106:~/Documents/Csv$ ls
cars.csv cereal.csv contacts.csv country.csv film.csv sorted_cars.csv
mahima-rana@cis106:~/Documents/Csv$ cat cereal.csv
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;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
100% Natural Bran;Q;C;120;3;5;15;2;8;8;135;0;3;1;1;33.983679
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; Float; Float; Int; Int; Int; Float
;Float;Float
name; mfr; type; calories; protein; fat; sodium; fiber; carbo; sugars; potass; vitamins; she
lf;weight;cups;rating
mahima-rana@cis106:~/Documents/Csv$ tac cereal.csv
mahima-rana@cis106:~/Documents/Csv$ cat -nEv cereal.csv
     1 name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vita
mins;shelf;weight;cups;rating^M$
     nt;Float;Float;Float^M$
        100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973^M$
     4 100% Natural Bran; Q; C; 120; 3; 5; 15; 2; 8; 8; 135; 0; 3; 1; 1; 33.983679^M$
       All-Bran; K; C; 70; 4; 1; 260; 9; 7; 5; 320; 25; 3; 1; 0.33; 59.425505 M$
       All-Bran with Extra Fiber; K; C; 50; 4; 0; 140; 14; 8; 0; 330; 25; 3; 1; 0.5; 93.704912
                          mahima-rana@cis106: ~/Documents/Csv
                                                             Q
mahima-rana@cis106:~/Documents/Csv$ head -n 2 cereal.csv
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;she
lf;weight;cups;rating
String;Categorical;Categorical;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float
;Float;Float
mahima-rana@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
mahima-rana@cis106:~/Documents/Csv$
```

## Question 2

```
mahima-rana@cis106: ~/Documents/Csv
 Ŧ
                                                               Q
mahima-rana@cis106:~/Documents/Csv$ head -n 1 cars.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
mahima-rana@cis106:~/Documents/Csv$ cut -d";" -f1 cars.csv
Car
STRING
Chevrolet Chevelle Malibu
Buick Skylark 320
Plymouth Satellite
AMC Rebel SST
Ford Torino
                           mahima-rana@cis106: ~/Documents/Csv
mahima-rana@cis106:~/Documents/Csv$ cut -d";" -f1,3 cars.csv
Car:Cvlinders
STRING: INT
Chevrolet Chevelle Malibu;8
Buick Skylark 320;8
Plymouth Satellite;8
AMC Rebel SST;8
Ford Torino;8
Ford Galaxie 500;8
Chevrolet Camaro = 4
Ford Mustang GL = 4
Volkswagen Pickup = 4
Dodge Rampage = 4
Ford Ranger = 4
Chevy S-10 = 4
mahima-rana@cis106:~/Documents/Csv$ cut -d";" -f1,3 cars.csv --output-delimiter=
Volvo 144ea;19.0;4;121.0;112.0;2868.;15.5;73;Europe
Volvo 145e (sw);18.0;4;121.0;112.0;2933.;14.5;72;Europe
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
mahima-rana@cis106:~/Documents/Csv$ sort cars.csv
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;she
lf;weight;cups;rating
String;Categorical;Categorical;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float
;Float;Float
mahima-rana@cis106:~/Documents/Csv$ sort -t";" -k4 cereal.csv
```

## **Ouestion 3**





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