Caroline Wallace Spring 2024 Cis106

Question 1

```
cwallace2@cis106:~/Documents$ cd
cwallace2@cis106:~$ cd Documents/Csv/
cwallace2@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;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
Bran Flakes;P;C;90;3;0;210;5;13;5;190;25;3;1;0.67;53.313813
Cap'n'Crunch;Q;C;120;1;2;220;0;12;12;35;25;2;1;0.75;18.042851
Cheerios;G;C;110;6;2;290;2;17;1;105;25;1;1;1.25;50.764999
Cinnamon Toast Crunch;G;C;120;1;3;210;0;13;9;45;25;2;1;0.75;19.823573
Clusters;G;C;110;3;2;140;2;13;7;105;25;3;1;0.5;40.400208
Cocoa Puffs;G;C;110;1;1;180;0;12;13;55;25;2;1;1;22.736446
Corn Chex;R;C;110;2;0;280;0;22;3;25;25;1;1;1;41.445019
Corn Flakes;K;C;100;2;0;290;1;21;2;35;25;1;1;1;45.863324
```

Question 2

```
1: ccwallace2@cis106: ~/Documents/Csv ∨
ccwallace2@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
Plymouth Fury iii
Pontiac Catalina
AMC Ambassador DPL
Citroen DS-21 Pallas
Chevrolet Chevelle Concours (sw)
Ford Torino (sw)
Plymouth Satellite (sw)
AMC Rebel SST (sw)
Dodge Challenger SE
Plymouth 'Cuda 340
Ford Mustang Boss 302
Chevrolet Monte Carlo
Buick Estate Wagon (sw)
Toyota Corolla Mark ii
Plymouth Duster
AMC Hornet
Ford Maverick
```

```
ccwallace2@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
Ford Torino;8
Ford Galaxie 500;8
Chevrolet Impala;8
Plymouth Fury iii;8
Pontiac Catalina;8
AMC Ambassador DPL;8
Citroen DS-21 Pallas;4
Chevrolet Chevelle Concours (sw);8
Ford Torino (sw);8
Plymouth Satellite (sw);8
AMC Rebel SST (sw);8
Dodge Challenger SE;8
Plymouth 'Cuda 340;8
Ford Mustang Boss 302;8
Chevrolet Monte Carlo;8
Buick Estate Wagon (sw);8
Toyota Corolla Mark ii;4
Plymouth Duster;6
```

```
ccwallace2@cis106:~/Documents/Csv$ cut -d";" -f1,3 cars.csv --output-delimiter=" = "
Car = Cylinders
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 Impala = 8
Plymouth Fury iii = 8
Pontiac Catalina = 8
AMC Ambassador DPL = 8
Citroen DS-21 Pallas = 4
Chevrolet Chevelle Concours (sw) = 8
Ford Torino (sw) = 8
Plymouth Satellite (sw) = 8
AMC Rebel SST (sw) = 8
Dodge Challenger SE = 8
Plymouth 'Cuda 340 = 8
Ford Mustang Boss 302 = 8
Chevrolet Monte Carlo = 8
Buick Estate Wagon (sw) = 8
Toyota Corolla Mark ii = 4
Plymouth Duster = 6
AMC Hornet = 6
Ford Maverick = 6
Datsun PL510 = 4
```

```
ccwallace2@cis106:~/Documents/Csv$ sort cars.csv
AMC Ambassador Brougham;13.0;8;360.0;175.0;3821.;11.0;73;US
AMC Ambassador DPL;15.0;8;390.0;190.0;3850.;8.5;70;US
AMC Ambassador SST;17.0;8;304.0;150.0;3672.;11.5;72;US
AMC Concord;19.4;6;232.0;90.00;3210.;17.2;78;US
AMC Concord;24.3;4;151.0;90.00;3003.;20.1;80;US
AMC Concord d/l;18.1;6;258.0;120.0;3410.;15.1;78;US
AMC Concord DL;23.0;4;151.0;0;3035.;20.5;82;US
AMC Concord DL 6;20.2;6;232.0;90.00;3265.;18.2;79;US
AMC Gremlin;18.0;6;232.0;100.0;2789.;15.0;73;US
AMC Gremlin;19.0;6;232.0;100.0;2634.;13.0;71;US
AMC Gremlin;20.0;6;232.0;100.0;2914.;16.0;75;US
AMC Gremlin;21.0;6;199.0;90.00;2648.;15.0;70;US
AMC Hornet;18.0;6;199.0;97.00;2774.;15.5;70;US
AMC Hornet;18.0;6;232.0;100.0;2945.;16.0;73;US
AMC Hornet;19.0;6;232.0;100.0;2901.;16.0;74;US
AMC Hornet;22.5;6;232.0;90.00;3085.;17.6;76;US
AMC Hornet Sportabout (sw);18.0;6;258.0;110.0;2962.;13.5;71;US
```

```
ccwallace2@cis106:~/Documents/Csv$ sort -t";" -k4 cereal.csv
Double Chex;R;C;100;2;0;190;1;18;5;80;25;3;1;0.75;44.330856
Corn Flakes;K;C;100;2;0;290;1;21;2;35;25;1;1;1;45.863324
Golden Crisp;P;C;100;2;0;45;0;11;15;40;25;1;1;0.88;35.252444
Crispy Wheat & Raisins;G;C;100;2;1;140;2;11;10;120;25;3;1;0.75;36.176196
Multi-Grain Cheerios;G;C;100;2;1;220;2;15;6;90;25;1;1;1;40.105965
Frosted Mini-Wheats;K;C;100;3;0;0;3;14;7;100;25;2;1;0.8;58.345141
Product 19;K;C;100;3;0;320;1;20;3;45;100;3;1;1;41.503540
Cream of Wheat (Quick);N;H;100;3;0;80;1;21;0;-1;0;2;1;1;64.533816
Grape Nuts Flakes;P;C;100;3;1;140;3;15;5;85;25;3;1;0.88;52.076897
Total Whole Grain;G;C;100;3;1;200;3;16;3;110;100;3;1;1;46.658844
Wheaties;G;C;100;3;1;200;3;17;3;110;25;1;1;1;51.592193
Wheat Chex;R;C;100;3;1;230;3;17;3;115;25;1;1;0.67;49.787445
Raisin Nut Bran;G;C;100;3;2;140;2.5;10.5;8;140;25;3;1;0.5;39.703400
Maypo;A;H;100;4;1;0;0;16;3;95;25;2;1;1;54.850917
Quaker Oat Squares;Q;C;100;4;1;135;2;14;6;110;25;3;1;0.5;49.511874
Life;Q;C;100;4;2;150;2;12;6;95;25;2;1;0.67;45.328074
Quaker Oatmeal;Q;H;100;5;2;0;2.7;-1;-1;110;0;1;1;0.67;50.828392
Honey-comb;P;C;110;1;0;180;0;14;11;35;25;1;1;1.33;28.742414
Frosted Flakes;K;C;110;1;0;200;1;14;11;25;25;1;1;0.75;31.435973
Rice Chex;R;C;110;1;0;240;0;23;2;30;25;1;1;1.13;41.998933
Corn Pops;K;C;110;1;0;90;1;13;12;20;25;2;1;1;35.782791
Fruity Pebbles;P;C;110;1;1;135;0;13;12;25;25;2;1;0.75;28.025765
Trix;G;C;110;1;1;140;0;13;12;25;25;2;1;1;27.753301
Cocoa Puffs;G;C;110;1;1;180;0;12;13;55;25;2;1;1;22.736446
Count Chocula;G;C;110;1;1;180;0;12;13;65;25;2;1;1;22.396513
Golden Grahams;G;C;110;1;1;280;0;15;9;45;25;2;1;0.75;23.804043
Apple Jacks;K;C;110;2;0;125;1;11;14;30;25;2;1;1;33.174094
Crispix;K;C;110;2;0;220;1;21;3;30;25;3;1;1;46.895644
Corn Chex;R;C;110;2;0;280;0;22;3;25;25;1;1;1;41.445019
Rice Krispies;K;C;110;2;0;290;0;22;3;35;25;1;1;1;40.560159
Froot Loops;K;C;110;2;1;125;1;11;13;30;25;2;1;1;32.207582
```

Questions 3

```
ccwallace2@cis106:~/Documents/Books$ grep 'war' war-and-peace.txt
Buonapartes. But I warn you, if you don't tell me that this means war,
things, but Austria never has wished, and does not wish, for war. She
Pávlovna's hand and for some reason drawing it downwards. "Arrange
to get himself killed. Tell me what this wretched war is for?" she
she moved toward Anna Pávlovna. Hélène was so lovely that not only
"You are off to the war, Prince?" said Anna Pávlovna.
      * God has given it to me, let him who touches it beware!
more animated. "And believe me, they are reaping the reward of their
through his lorgnette, suddenly turned completely round toward the
Prince Andrew, who had evidently wished to tone down the awkwardness of
his kindly, simple, and modest expression. Anna Pávlovna turned toward
awkwardness or intentionally (no one could have said which) after the
to tell you. There is a war now against Napoleon. If it were a war for
wars," he said.
"Well, why are you going to the war?" asked Pierre.
wants to go to the war," replied Pierre, addressing the princess
without wars. How is it that we women don't want anything of the kind,
so to me? What have I done to you? You are going to the war and have no
he worked went step by step toward his goal. He was free, he had nothing
the enchanted circle I cannot escape from. I am now going to the war,
the greatest war there ever was, and I know nothing and am fit for
lad jumped awkwardly back into the room, tripping over his spurs.
present, suddenly pushed forward with a scared and angry look and wanted
Suddenly Dólokhov made a backward movement with his spine, and his arm
aware of a stir all around. He looked up: Dólokhov was standing on the
still in the drawing room, drew a chair toward him or her, and jauntily
bodice, with black curls tossed backward, thin bare arms, little legs
"But they say that war has been declared," replied the visitor.
```

```
ccwallace2@cis106:~/Documents/Books$ grep -i 'war' war-and-peace.txt
The Project Gutenberg eBook of War and Peace, by Leo Tolstoy
Title: War and Peace
*** START OF THE PROJECT GUTENBERG EBOOK WAR AND PEACE ***
WAR AND PEACE
Buonapartes. But I warn you, if you don't tell me that this means war,
things, but Austria never has wished, and does not wish, for war. She
Pávlovna's hand and for some reason drawing it downwards. "Arrange
to get himself killed. Tell me what this wretched war is for?" she
she moved toward Anna Pávlovna. Hélène was so lovely that not only
"You are off to the war, Prince?" said Anna Pávlovna.
      * God has given it to me, let him who touches it beware!
more animated. "And believe me, they are reaping the reward of their
through his lorgnette, suddenly turned completely round toward the
Prince Andrew, who had evidently wished to tone down the awkwardness of
his kindly, simple, and modest expression. Anna Pávlovna turned toward
awkwardness or intentionally (no one could have said which) after the
to tell you. There is a war now against Napoleon. If it were a war for
wars," he said.
"Well, why are you going to the war?" asked Pierre.
wants to go to the war," replied Pierre, addressing the princess
without wars. How is it that we women don't want anything of the kind,
so to me? What have I done to you? You are going to the war and have no
he worked went step by step toward his goal. He was free, he had nothing
```

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ccwallace2@cis106:~/Documents/Books$ grep -c 'war' war-and-peace.txt
1219
ccwallace2@cis106:~/Documents/Books$ _
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ccwallace2@cis106:~/Documents/Books$ grep -wc 'war' war-and-peace.txt
266
```

```
ccwallace2@cis106:~/Documents/Books$ grep -n 'peace' war-and-peace.txt
1170:"Yes, I have heard of his scheme for perpetual peace, and it is very
1937:right light.... In my opinion perpetual peace is possible but—I do not
4113:aim—to establish peace in Europe on firm foundations—has now decided
4688:his noble soul peacefully to leave this..."
5325:sacrament, allow him a moment's peace! Here, Pierre, tell them your
5542:peace. The old man was beside himself: moved the chair on which he was
5612:that the Corsican monster who is destroying the peace of Europe may
6371:to Himself, for in Him alone is truth and peace," said she in a voice
8792:the pine forests veiled in the mist of their summits... There was peac
9259:projects for peace, a secret peace concluded separately."
9670:will not reach your regiment before peace is concluded, or you will
9826:"Well, is it true that it's peace and capitulation?" asked
10020:that negotiations for peace were already proceeding, and that he
10024:exposed. Another emissary rode to the Russian line to announce the pe
10095:talked of peace but did not believe in its possibility; others talked
```

```
1056  grep -n 'the' war-and-peace.txt
1057  history
```

q3

```
ccwallace2@cis106:~/Documents/Books$ grep -nR "^l...d" ./
./war-and-peace.txt:5254:liked to. He looked inquiringly at his monitress and saw that she was
./war-and-peace.txt:7296:liked to tell him. He gathered up the papers and with a bow to both,
./war-and-peace.txt:12933:liked to repeat to herself. It was the story of a girl who had been
./war-and-peace.txt:13034:loved more than himself. He kept telling himself that he would consider
./war-and-peace.txt:13817:liked to help young men, was flattered by being asked for his assistance
./war-and-peace.txt:21373:lived for glory.—And after all what is glory? The same love of others,
./war-and-peace.txt:21375:lived for others, and not almost, but quite, ruined my life. And I have
./war-and-peace.txt:22829:lie down in my room and have a rest."
./war-and-peace.txt:23565:lived for myself alone while others live so apart from it, but so that
./war-and-peace.txt:25906:liked her voice. She asked this and then became confused, feeling that
./war-and-peace.txt:25908:liked her singing as he liked everything she did.
./war-and-peace.txt:26188:loved.) "I... but no, I will talk to you later on," and with a
./war-and-peace.txt:26971:loved his wife, she died, but that was not enough: he wanted to bind
./war-and-peace.txt:28969:lived in animals, and will go back into animals again."
./war-and-peace.txt:28985:lived for a whole eternity."
./war-and-peace.txt:30754:loved her only, and was to come one of these days and take her. She
./war-and-peace.txt:32380:liked upsetting a driver or running down a pedestrian, and flying at
./war-and-peace.txt:40081:lay down on his bed groaning and loudly exclaimed, 'My God!' Why didn't
./war-and-peace.txt:40681:loved him and respected him, and sympathize with you with all my heart."
./war-and-peace.txt:44670:lived. But now it is too late. I know it!"
./war-and-peace.txt:48561:lined with fox fur, that had once been smart, and dirty hempen convict
./war-and-peace.txt:48690:livid face stained with blood and dust.
./war-and-peace.txt:50235:loved that man. What has become of him? Is he alive?...
./war-and-peace.txt:51651:loved face, a new life force took possession of her and compelled her to
./war-and-peace.txt:51658:lived appeared on the surface. All her inward labor, her dissatisfaction
./war-and-peace.txt:51971:loved no one but Prince Andrew and had never ceased to love him. She
./war-and-peace.txt:52917:loved for the first and only time in her life and felt that she was
./war-and-peace.txt:55272:lured one to itself. Pierre glanced up at the sky and the twinkling
./war-and-peace.txt:62242:lay down on the sofa.
./war-and-peace.txt:62346:loved for their beauty. But do I love my wife? I don't love her, but...
./war-and-peace.txt:62817:loved Natásha and when dying had left her to his friend. But the father
./pride-and-prejudice.txt:1748:liked a red coat myself very well--and, indeed, so I do still at my
./pride-and-prejudice.txt:9502:lived. Not like the wild young men now-a-days, who think of nothing but
./pride-and-prejudice.txt:10044:loved her, but for loving her still well enough to forgive all the
./pride-and-prejudice.txt:13976:liked him but Jane; and even feared that with the others it was a
./great-expectastions.txt:153:lamed by stones, and cut by flints, and stung by nettles, and torn by
./great-expectastions.txt:1696:loved Joe -perhaps for no better reason in those early days than
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```
ccwallace2@cis106:~/Documents/Books$ grep -R "^d[aeiou]..." ./
./war-and-peace.txt:dispatch? You know everything."
./war-and-peace.txt:did not suit her faded features, always played round her lips expressed,
./war-and-peace.txt:did Novosíltsev get? None. The English have not understood and cannot
./war-and-peace.txt:destiny of our adored monarch. He will save Europe!"
./war-and-peace.txt:don't feel that weakness in myself as yet, I know a little person who
./war-and-peace.txt:delicate dark down was just perceptible, was too short for her teeth,
./war-and-peace.txt:down on a sofa near the silver samovar, as if all she was doing was a
./war-and-peace.txt:distinguished him from everyone else in that drawing room.
./war-and-peace.txt:diamonds, she passed between the men who made way for her, not looking
./war-and-peace.txt:did she not show any trace of coquetry, but on the contrary she even
./war-and-peace.txt:daughter got up to go and the two young men rose to let them pass.
./war-and-peace.txt:do this for my son—and I shall always regard you as a benefactor,"
./war-and-peace.txt:declared that he will leave it to the French people themselves to choose
./war-and-peace.txt:duc even the most partial ceased to regard him as a hero. If to some
./war-and-peace.txt:difficulty.
./war-and-peace.txt:disagreeable tone to Prince Hippolyte who was blocking his path.
./war-and-peace.txt:diplomatist?" asked Prince Andrew after a momentary silence.
./war-and-peace.txt:don't need it? Now you shall judge between us. I always tell him: Here
./war-and-peace.txt:deprecating expression of a dog when it rapidly but feebly wags its
./war-and-peace.txt:dissipated life of his son Anatole, the son whom they were planning to
./war-and-peace.txt:duelist, who was living with Anatole. Pierre smiled, looking about him
./war-and-peace.txt:distinguished air which inspired respect. Princess Anna Mikháylovna
./war-and-peace.txt:day we are keeping. But mind you come to dinner or I shall be offended,
./war-and-peace.txt:daughter, entered the drawing room, their dresses rustling.
./war-and-peace.txt:done for him! I hope that here in Moscow no one will receive him, in
./war-and-peace.txt:declined: I have my daughters to consider."
./war-and-peace.txt:darted in and stopped short in the middle of the room. It was evident
./war-and-peace.txt:day," said the visitor. "What a charming child," she added,
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```
ccwallace2@cis106:~/Documents/Books$ grep "aa" 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
ccwallace2@cis106:~/Documents/Books$ _
```