

## Lab 8

# Question 1

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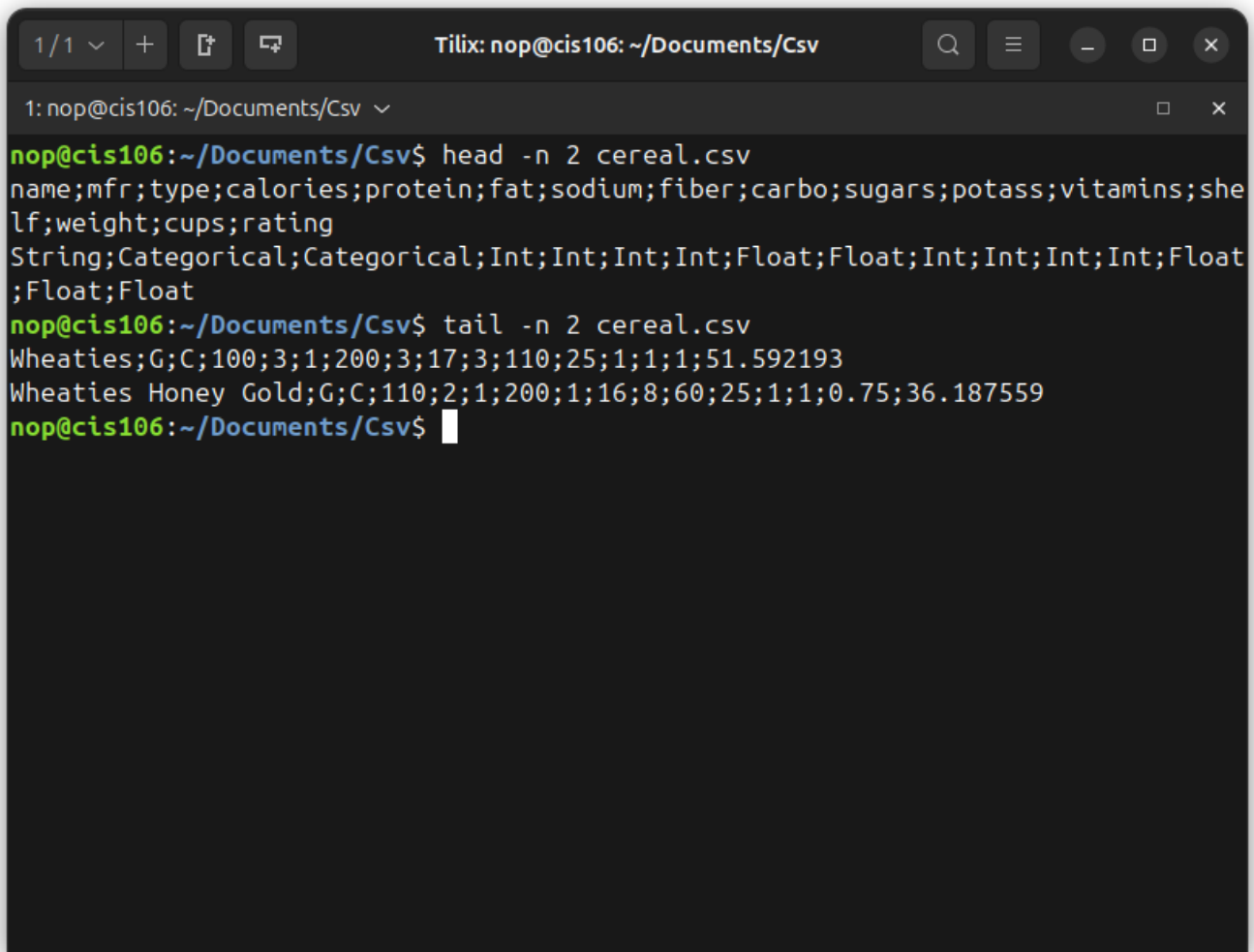
```
1/1 v + [ ] [ ] Tilix: nop@cis106: ~/Documents/Csv [ ] [ ] [ ] [ ] [ ]
1: nop@cis106: ~/Documents/Csv v AI [ ] [ ] x
nop@cis106:~$ cd Documents
nop@cis106:~/Documents$ cd Csv
nop@cis106:~/Documents/Csv$ cat cereal.csv
name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamins;she
lf;weight;cups;rating
String;Categorical;Categorical;Int;Int;Int;Int;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
```

```
1/1 v + [ ] [ ] Tilix: nop@cis106: ~/Documents/Csv [ ] [ ] [ ] [ ] [ ]
1: nop@cis106: ~/Documents/Csv v AI [ ] [ ] x
nop@cis106:~/Documents/Csv$ tac cereal.csv
Wheaties Honey Gold;G;C;110;2;1;200;1;16;8;60;25;1;1;0.75;36.187559
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
Trix;G;C;110;1;1;140;0;13;12;25;25;2;1;1;27.753301
Triples;G;C;110;2;1;250;0;21;3;60;25;3;1;0.75;39.106174
Total Whole Grain;G;C;100;3;1;200;3;16;3;110;100;3;1;1;46.658844
Total Raisin Bran;G;C;140;3;1;190;4;15;14;230;100;3;1.5;1;28.592785
Total Corn Flakes;G;C;110;2;1;200;0;21;3;35;100;3;1;1;38.839746
Strawberry Fruit Wheats;N;C;90;2;0;15;3;15;5;90;25;2;1;1;59.363993
Special K;K;C;110;6;0;230;1;16;3;55;25;1;1;1;53.131324
Smacks;K;C;110;2;1;70;1;9;15;40;25;2;1;0.75;31.230054
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
Shredded Wheat;N;C;80;2;0;0;3;16;0;95;0;1;0.83;1;68.235885
Rice Krispies;K;C;110;2;0;290;0;22;3;35;25;1;1;1;40.560159
Rice Chex;R;C;110;1;0;240;0;23;2;30;25;1;1;1.13;41.998933
Raisin Squares;K;C;90;2;0;0;2;15;6;110;25;3;1;0.5;55.333142
Raisin Nut Bran;G;C;100;3;2;140;2.5;10.5;8;140;25;3;1;0.5;39.703400
Raisin Bran;K;C;120;3;1;210;5;14;12;240;25;2;1.33;0.75;39.259197
Quaker Oatmeal;Q;H;100;5;2;0;2.7;-1;-1;110;0;1;1;0.67;50.828392
Quaker Oat Squares;Q;C;100;4;1;135;2;14;6;110;25;3;1;0.5;49.511874
Puffed Wheat;Q;C;50;2;0;0;1;10;0;50;0;3;0.5;1;63.005645
Puffed Rice;Q;C;50;1;0;0;0;13;0;15;0;3;0.5;1;60.756113
```

```
Puffed Rice;Q;C;50;1;0;0;0;13;0;15;0;3;0.5;1;60.756112
```

```
Tilix: nop@cis106: ~/Documents/Csv
1/1 + [?] [?]
1: nop@cis106: ~/Documents/Csv
nop@cis106:~/Documents/Csv$ cat -n cereal.csv | sed 's/$/\$/; s/[[:cntrl:]]/\&/g'
1\ name;mfr;type;calories;protein;fat;sodium;fiber;carbo;sugars;potass;vitamin;shelf;weight;cups;rating\
2\ String;Categorical;Categorical;Int;Int;Int;Int;Float;Float;Int;Int;Int;Int;Float;Float;Float\
$ 3\ 100% Bran;N;C;70;4;1;130;10;5;6;280;25;3;1;0.33;68.402973\
$ 4\ 100% Natural Bran;Q;C;120;3;5;15;2;8;8;135;0;3;1;1;33.983679\
$ 5\ All-Bran;K;C;70;4;1;260;9;7;5;320;25;3;1;0.33;59.425505\
$ 6\ All-Bran with Extra Fiber;K;C;50;4;0;140;14;8;0;330;25;3;1;0.5;93.704912\
$ 7\ Almond Delight;R;C;110;2;2;200;1;14;8;-1;25;3;1;0.75;34.384843\
$ 8\ Apple Cinnamon Cheerios;G;C;110;2;2;180;1.5;10.5;10;70;25;1;1;0.75;29.50541\
$ 9\ Apple Jacks;K;C;110;2;0;125;1;11;14;30;25;2;1;1;33.174094\
$ 10\ Basic 4;G;C;130;3;2;210;2;18;8;100;25;3;1.33;0.75;37.038562\
$ 11\ Bran Chex;R;C;90;2;1;200;4;15;6;125;25;1;1;0.67;49.120253\
$ 12\ Bran Flakes;P;C;90;3;0;210;5;13;5;190;25;3;1;0.67;53.313813\
$ 13\ Cap'n Crunch;Q;C;120;1;2;220;0;12;12;35;25;2;1;0.75;18.042851\
$ 14\ Cheerios;G;C;110;6;2;290;2;17;1;105;25;1;1;1.25;50.764999\
$ 15\ Cinnamon Toast Crunch;G;C;120;1;3;210;0;13;9;45;25;2;1;0.75;19.823573\
$ 16\ Clusters;G;C;110;3;2;140;2;13;7;105;25;3;1;0.5;40.400208\
$ 17\ Cocoa Puffs;G;C;110;1;1;180;0;12;13;55;25;2;1;1;22.736446\
$ 18\ Corn Chex;R;C;110;2;0;280;0;22;3;25;25;1;1;1;41.445019\
```

4 and 5 below

A terminal window titled 'Tilix: nop@cis106: ~/Documents/Csv' with standard window controls. The terminal shows the execution of 'head -n 2 cereal.csv' and 'tail -n 2 cereal.csv'. The output of 'head' shows the first two lines of a CSV file, including column headers and data types. The output of 'tail' shows the last two lines of the file, which are rows of numerical and categorical data.

```
1/1  +  [icon] [icon]  Tilix: nop@cis106: ~/Documents/Csv  [search] [menu] [back] [forward] [close]

1: nop@cis106: ~/Documents/Csv  [icon] [close]

nop@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;Float
nop@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
nop@cis106:~/Documents/Csv$
```

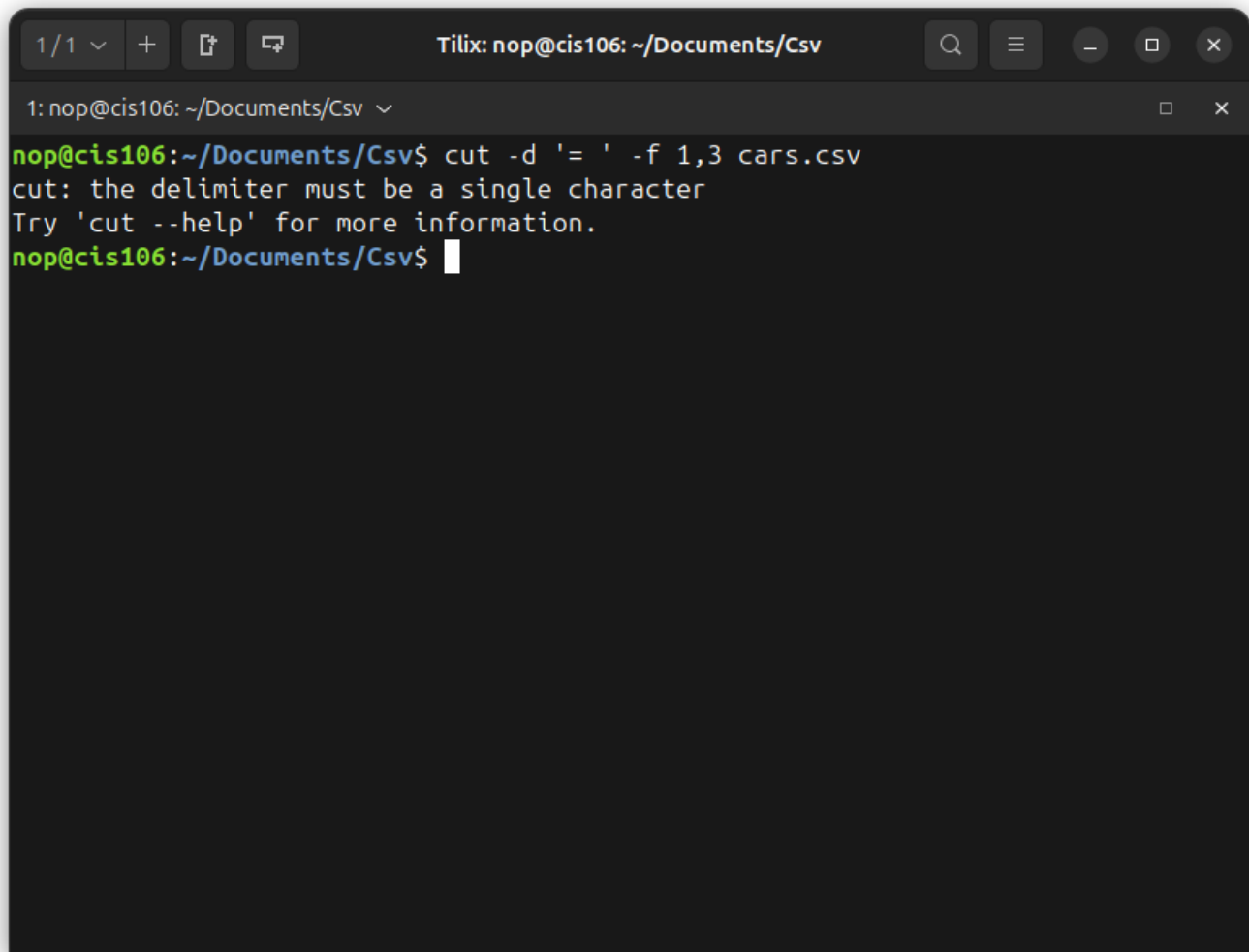
## Question 2

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```
Tilix: nop@cis106: ~/Documents/Csv
1: nop@cis106: ~/Documents/Csv
nop@cis106:~/Documents/Csv$ cut -d ',' -f 1 cars.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
STRING;DOUBLE;INT;DOUBLE;DOUBLE;DOUBLE;DOUBLE;INT;CAT
Chevrolet Chevelle Malibu;18.0;8;307.0;130.0;3504.;12.0;70;US
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
Ford Torino (sw);0;8;351.0;153.0;4034.;11.0;70;US
Plymouth Satellite (sw);0;8;383.0;175.0;4166.;10.5;70;US
AMC Rebel SST (sw);0;8;360.0;175.0;3850.;11.0;70;US
Dodge Challenger SE;15.0;8;383.0;170.0;3563.;10.0;70;US
Plymouth 'Cuda 340;14.0;8;340.0;160.0;3609.;8.0;70;US
Ford Mustang Boss 302;0;8;302.0;140.0;3353.;8.0;70;US
Chevrolet Monte Carlo;15.0;8;400.0;150.0;3761.;9.5;70;US
Buick Estate Wagon (sw);14.0;8;455.0;225.0;3086.;10.0;70;US
Toyota Corolla Mark ii;24.0;4;113.0;95.00;2372.;15.0;70;Japan
```

```
Tilix: nop@cis106: ~/Documents/Csv
1: nop@cis106: ~/Documents/Csv
nop@cis106:~/Documents/Csv$ cut -d ',' -f 1,3 cars.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
STRING;DOUBLE;INT;DOUBLE;DOUBLE;DOUBLE;DOUBLE;DOUBLE;INT;CAT
Chevrolet Chevelle Malibu;18.0;8;307.0;130.0;3504.;12.0;70;US
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
Ford Torino (sw);0;8;351.0;153.0;4034.;11.0;70;US
Plymouth Satellite (sw);0;8;383.0;175.0;4166.;10.5;70;US
AMC Rebel SST (sw);0;8;360.0;175.0;3850.;11.0;70;US
Dodge Challenger SE;15.0;8;383.0;170.0;3563.;10.0;70;US
Plymouth 'Cuda 340;14.0;8;340.0;160.0;3609.;8.0;70;US
Ford Mustang Boss 302;0;8;302.0;140.0;3353.;8.0;70;US
Chevrolet Monte Carlo;15.0;8;400.0;150.0;3761.;9.5;70;US
Buick Estate Wagon (sw);14.0;8;455.0;225.0;3086.;10.0;70;US
Toyota Corolla Mark ii;24.0;4;113.0;95.00;2372.;15.0;70;Japan
```

```
Toyota Corolla Mark II;24.0;4;113.0;95.00;2372.;15.0;70;Japan
```



A terminal window titled "Tilix: nop@cis106: ~/Documents/Csv" with standard window controls. The terminal shows a command prompt where the user has entered `cut -d '=' -f 1,3 cars.csv`. The output indicates an error: `cut: the delimiter must be a single character` and `Try 'cut --help' for more information.`. The prompt returns to `nop@cis106:~/Documents/Csv$` with a cursor.

```
1/1  +  [icon] [icon]  Tilix: nop@cis106: ~/Documents/Csv  [search] [menu] [back] [forward] [close]
1: nop@cis106: ~/Documents/Csv  [icon] [close]
nop@cis106:~/Documents/Csv$ cut -d '=' -f 1,3 cars.csv
cut: the delimiter must be a single character
Try 'cut --help' for more information.
nop@cis106:~/Documents/Csv$
```



```
1/1  +  [?] [?]  Tilix: nop@cis106: ~/Documents/Csv  [Q] [≡] [-] [□] [X]
1: nop@cis106: ~/Documents/Csv  [□] [X]
nop@cis106:~/Documents/Csv$ sort -t, -k1 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
AMC Matador;14.0;8;304.0;150.0;3672.;11.5;73;US
AMC Matador;15.0;6;258.0;110.0;3730.;19.0;75;US
AMC Matador;15.5;8;304.0;120.0;3962.;13.9;76;US
AMC Matador;16.0;6;258.0;110.0;3632.;18.0;74;US
AMC Matador;18.0;6;232.0;100.0;3288.;15.5;71;US
AMC Matador (sw);14.0;8;304.0;150.0;4257.;15.5;74;US
```

```
1/1  +  [Icons]  Tilix: nop@cis106: ~/Documents/Csv  [Search] [Menu] [Window] [Close]

1: nop@cis106: ~/Documents/Csv  AI [Window] [Close]

nop@cis106:~/Documents/Csv$ sort -t, -k3 -n cereal.csv > sorted_cereal.csv
nop@cis106:~/Documents/Csv$ cat sorted_cereal.csv
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
Corn Pops;K;C;110;1;0;90;1;13;12;20;25;2;1;1;35.782791
Count Chocula;G;C;110;1;1;180;0;12;13;65;25;2;1;1;22.396513
Cracklin' Oat Bran;K;C;110;3;3;140;4;10;7;160;25;3;1;0.5;40.448772
Cream of Wheat (Quick);N;H;100;3;0;80;1;21;0;-1;0;2;1;1;64.533816
Crispix;K;C;110;2;0;220;1;21;3;30;25;3;1;1;46.895644
```

## Question 3

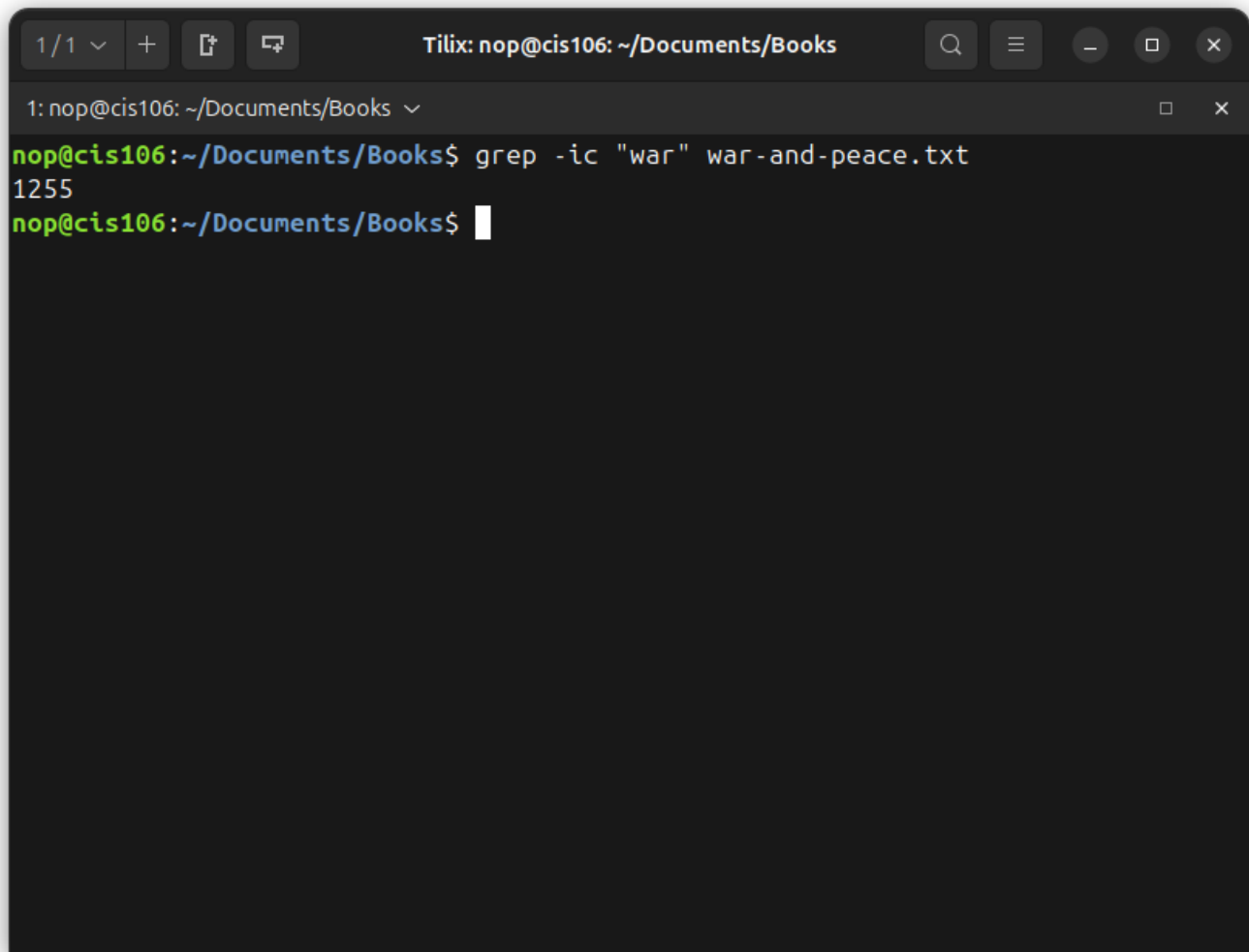
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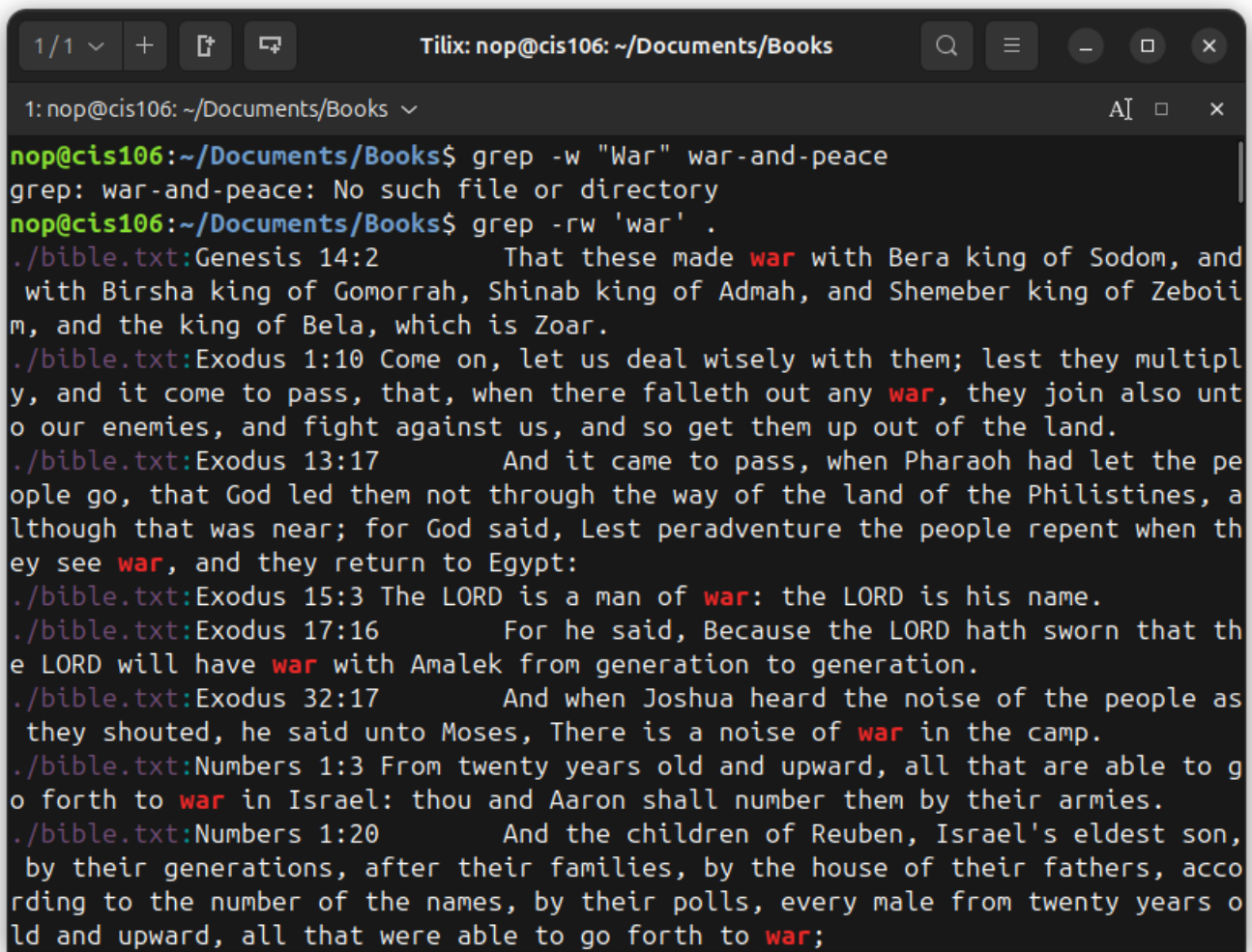
```
1/1 + [ ] [ ] Tilix: nop@cis106: ~/Documents/Books
1: nop@cis106: ~/Documents/Books
nop@cis106:~/Documents/Books$ grep -i "war" war-and-peace.txt
The Project Gutenberg eBook of War and Peace, by Leo Tolstoy
Title: War and Peace
*** START OF THE PROJECT GUTENBERG EBOOK WAR AND PEACE ***
WAR AND PEACE
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
```

```
1/1 + [ ] [ ] Tilix: nop@cis106: ~/Documents/Books
1: nop@cis106: ~/Documents/Books
nop@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
```

he worked went step by step towar<sup>d</sup> his goal. He was free, he had nothing



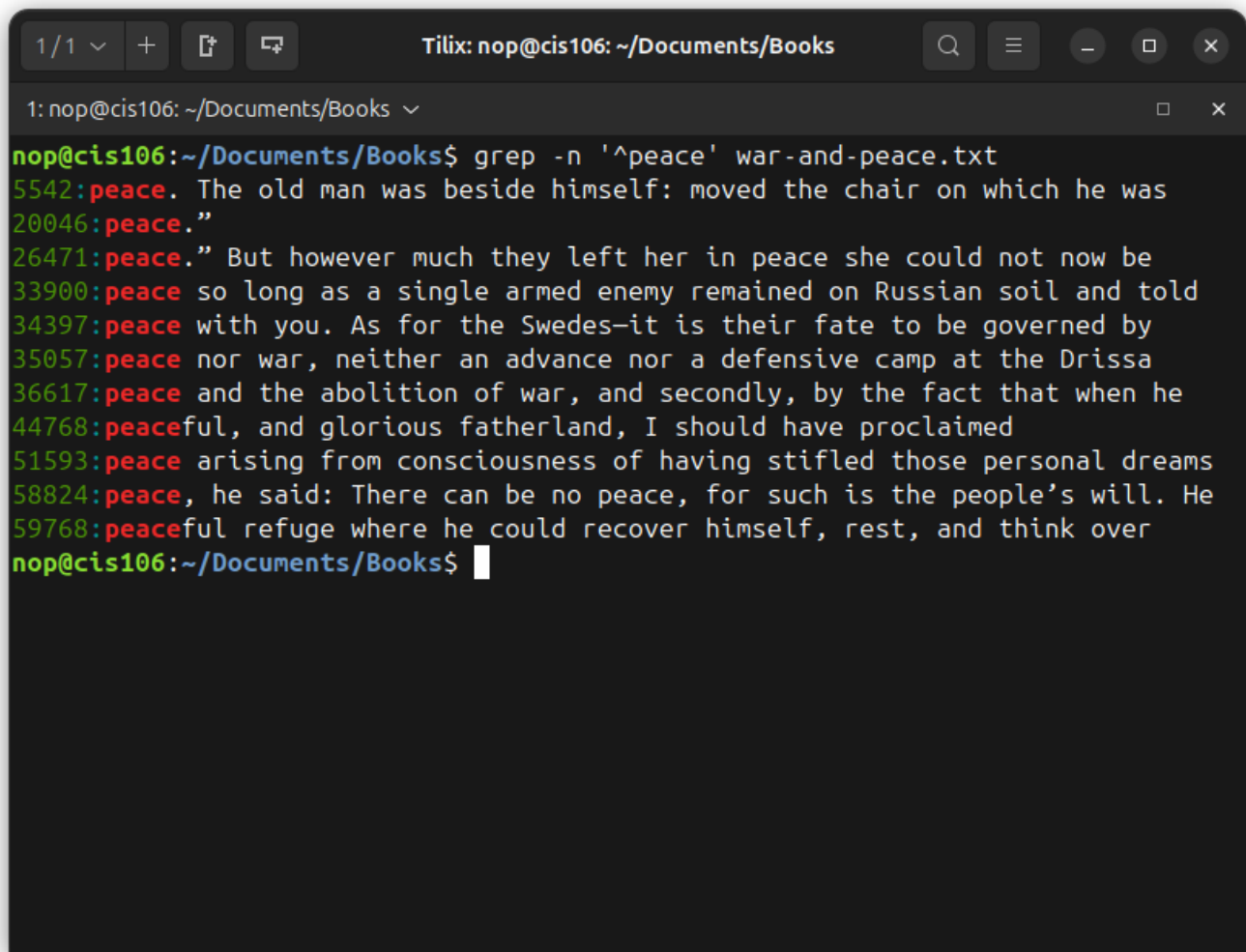
```
1/1  +  [copy] [paste]  Tilix: nop@cis106: ~/Documents/Books  [search] [menu] [back] [forward] [close]
1: nop@cis106: ~/Documents/Books  [close]
nop@cis106:~/Documents/Books$ grep -ic "war" war-and-peace.txt
1255
nop@cis106:~/Documents/Books$
```



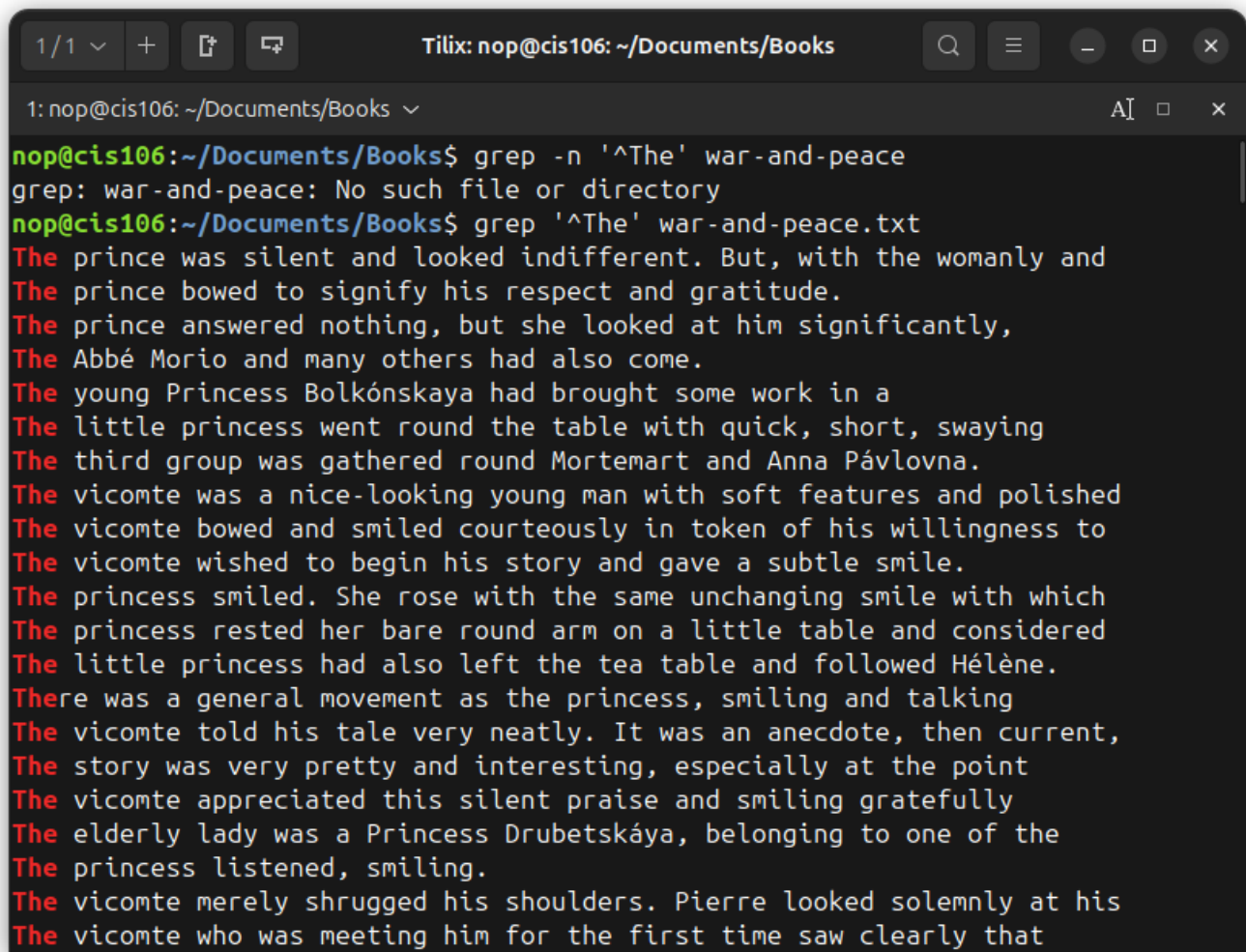
```
1/1  +  [Icons]  Tilix: nop@cis106: ~/Documents/Books  [Search] [Menu] [Zoom In] [Zoom Out] [Close]

1: nop@cis106: ~/Documents/Books  [AI] [Close]

nop@cis106:~/Documents/Books$ grep -w "War" war-and-peace
grep: war-and-peace: No such file or directory
nop@cis106:~/Documents/Books$ grep -rw 'war' .
./bible.txt:Genesis 14:2      That these made war with Bera king of Sodom, and
    with Birsha king of Gomorrah, Shinab king of Admah, and Shemeber king of Zeboiim,
    and the king of Bela, which is Zoar.
./bible.txt:Exodus 1:10 Come on, let us deal wisely with them; lest they multiply,
    and it come to pass, that, when there falleth out any war, they join also unto
    our enemies, and fight against us, and so get them up out of the land.
./bible.txt:Exodus 13:17      And it came to pass, when Pharaoh had let the people go,
    that God led them not through the way of the land of the Philistines, although that
    was near; for God said, Lest peradventure the people repent when they see war,
    and they return to Egypt:
./bible.txt:Exodus 15:3 The LORD is a man of war: the LORD is his name.
./bible.txt:Exodus 17:16      For he said, Because the LORD hath sworn that the LORD
    will have war with Amalek from generation to generation.
./bible.txt:Exodus 32:17      And when Joshua heard the noise of the people as they
    shouted, he said unto Moses, There is a noise of war in the camp.
./bible.txt:Numbers 1:3 From twenty years old and upward, all that are able to go
    forth to war in Israel: thou and Aaron shall number them by their armies.
./bible.txt:Numbers 1:20      And the children of Reuben, Israel's eldest son, by
    their generations, after their families, by the house of their fathers, according
    to the number of the names, by their polls, every male from twenty years old
    and upward, all that were able to go forth to war;
```



```
1/1  +  [copy] [paste]  Tilix: nop@cis106: ~/Documents/Books  [search] [menu] [back] [forward] [close]
1: nop@cis106: ~/Documents/Books  [close]
nop@cis106:~/Documents/Books$ grep -n '^peace' war-and-peace.txt
5542:peace. The old man was beside himself: moved the chair on which he was
20046:peace.”
26471:peace.” But however much they left her in peace she could not now be
33900:peace so long as a single armed enemy remained on Russian soil and told
34397:peace with you. As for the Swedes—it is their fate to be governed by
35057:peace nor war, neither an advance nor a defensive camp at the Drissa
36617:peace and the abolition of war, and secondly, by the fact that when he
44768:peaceful, and glorious fatherland, I should have proclaimed
51593:peace arising from consciousness of having stifled those personal dreams
58824:peace, he said: There can be no peace, for such is the people’s will. He
59768:peaceful refuge where he could recover himself, rest, and think over
nop@cis106:~/Documents/Books$
```



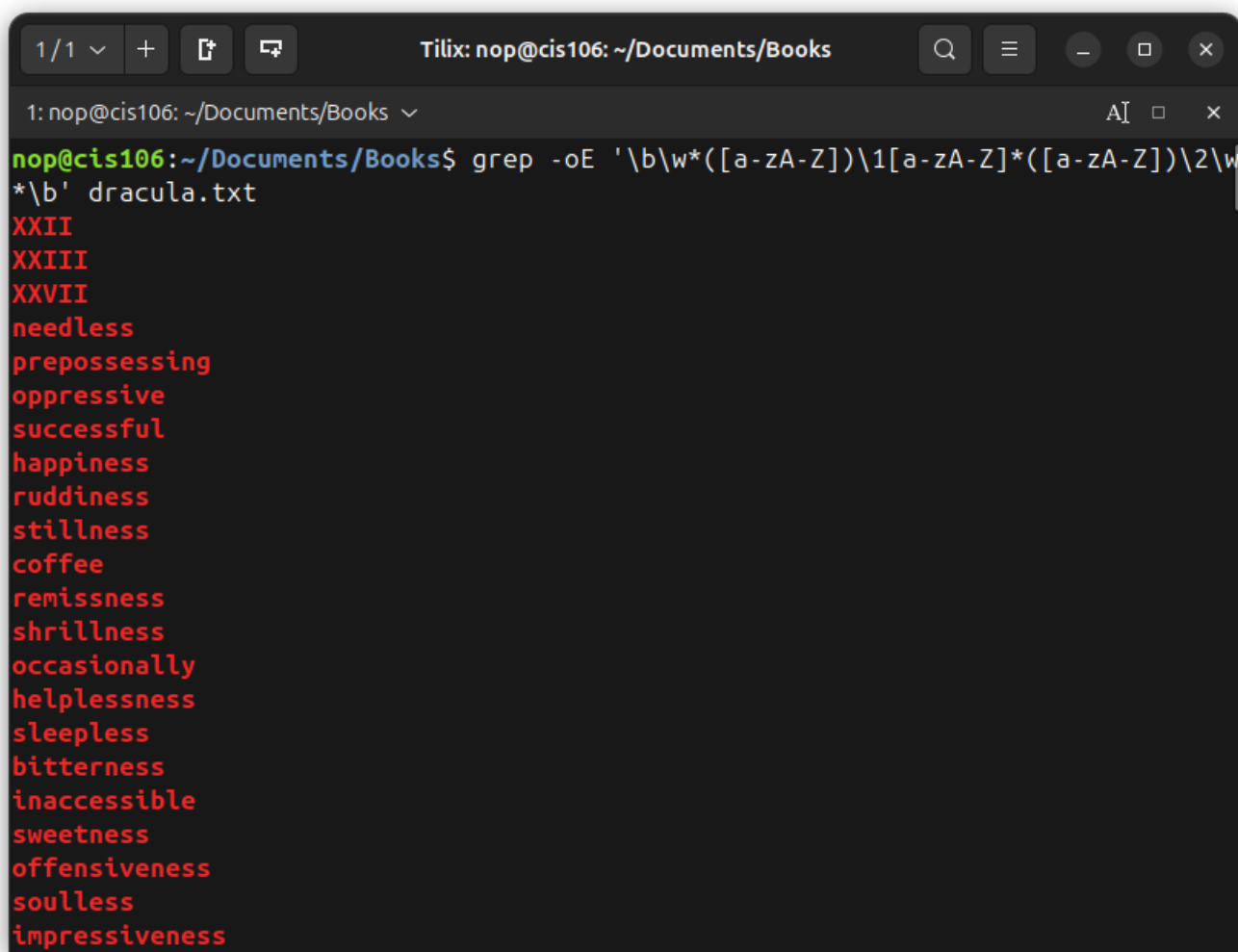
```
1/1  +  [copy] [paste]  Tilix: nop@cis106: ~/Documents/Books  [search] [menu] [back] [forward] [close]
1: nop@cis106: ~/Documents/Books  AI [close]
nop@cis106:~/Documents/Books$ grep -n '^The' war-and-peace
grep: war-and-peace: No such file or directory
nop@cis106:~/Documents/Books$ grep '^The' war-and-peace.txt
The prince was silent and looked indifferent. But, with the womanly and
The prince bowed to signify his respect and gratitude.
The prince answered nothing, but she looked at him significantly,
The Abbé Morio and many others had also come.
The young Princess Bolkónskaya had brought some work in a
The little princess went round the table with quick, short, swaying
The third group was gathered round Mortemart and Anna Pávlovna.
The vicomte was a nice-looking young man with soft features and polished
The vicomte bowed and smiled courteously in token of his willingness to
The vicomte wished to begin his story and gave a subtle smile.
The princess smiled. She rose with the same unchanging smile with which
The princess rested her bare round arm on a little table and considered
The little princess had also left the tea table and followed Hélène.
There was a general movement as the princess, smiling and talking
The vicomte told his tale very neatly. It was an anecdote, then current,
The story was very pretty and interesting, especially at the point
The vicomte appreciated this silent praise and smiling gratefully
The elderly lady was a Princess Drubetskáya, belonging to one of the
The princess listened, smiling.
The vicomte merely shrugged his shoulders. Pierre looked solemnly at his
The vicomte who was meeting him for the first time saw clearly that
```

```
1/1  +  [ ]  [ ]  Tilix: nop@cis106: ~/Documents/Books  [ ]  [ ]  [ ]  [ ]
1: nop@cis106: ~/Documents/Books  AI  [ ]  [ ]
nop@cis106:~/Documents/Books$ grep -i "love" war_and_peace.txt
grep: war_and_peace.txt: No such file or directory
nop@cis106:~/Documents/Books$ grep -in "love" war_and_peace.txt
grep: war_and_peace.txt: No such file or directory
nop@cis106:~/Documents/Books$ grep -i "love" war-and-peace
grep: war-and-peace: No such file or directory
nop@cis106:~/Documents/Books$ grep -i "love" *.txt
bible.txt:Genesis 22:2  And he said, Take now thy son, thine only son Isaac, who
m thou lovest, and get thee into the land of Moriah; and offer him there for a b
urnt offering upon one of the mountains which I will tell thee of.
bible.txt:Genesis 24:67 And Isaac brought her into his mother Sarah's tent, and
took Rebekah, and she became his wife; and he loved her: and Isaac was comforted
after his mother's death.
bible.txt:Genesis 25:28 And Isaac loved Esau, because he did eat of his venison:
but Rebekah loved Jacob.
bible.txt:Genesis 27:4  And make me savory meat, such as I love, and bring it to
me, that I may eat; that my soul may bless thee before I die.
bible.txt:Genesis 27:9  Go now to the flock, and fetch me from thence two good k
ids of the goats; and I will make them savory meat for thy father, such as he lo
veth:
bible.txt:Genesis 27:14 And he went, and fetched, and brought them to his mother
: and his mother made savory meat, such as his father loved.
bible.txt:Genesis 29:18 And Jacob loved Rachel; and said, I will serve thee seve
n years for Rachel thy younger daughter.
```



```
1/1  +  [?] [?]  Tilix: nop@cis106: ~/Documents/Books  [Q] [≡] [–] [□] [X]
1: nop@cis106: ~/Documents/Books  AI [□] [X]
nop@cis106:~/Documents/Books$ grep -n -E '\bl[a-z]{3}d\b' *.txt
bible.txt:109:Genesis 5:3      And Adam lived an hundred and thirty years, and
begat a son in his own likeness, and after his image; and called his name Seth:
bible.txt:111:Genesis 5:5      And all the days that Adam lived were nine hundr
ed and thirty years: and he died.
bible.txt:112:Genesis 5:6      And Seth lived an hundred and five years, and be
gat Enos:
bible.txt:113:Genesis 5:7      And Seth lived after he begat Enos eight hundred
and seven years, and begat sons and daughters:
bible.txt:115:Genesis 5:9      And Enos lived ninety years, and begat Cainan:
bible.txt:116:Genesis 5:10     And Enos lived after he begat Cainan eight hundr
ed and fifteen years, and begat sons and daughters:
bible.txt:118:Genesis 5:12     And Cainan lived seventy years and begat Mahalal
eel:
bible.txt:119:Genesis 5:13     And Cainan lived after he begat Mahalaleel eight
hundred and forty years, and begat sons and daughters:
bible.txt:121:Genesis 5:15     And Mahalaleel lived sixty and five years, and b
egat Jared:
bible.txt:122:Genesis 5:16     And Mahalaleel lived after he begat Jared eight
hundred and thirty years, and begat sons and daughters:
bible.txt:124:Genesis 5:18     And Jared lived an hundred sixty and two years,
and he begat Enoch:
bible.txt:125:Genesis 5:19     And Jared lived after he begat Enoch eight hundr
ed years, and begat sons and daughters:
```

```
1/1 v + [icons] Tilix: nop@cis106: ~/Documents/Books [search] [menu] [window] [close]
1: nop@cis106: ~/Documents/Books v
nop@cis106:~/Documents/Books$ grep -o '\bd[aAeEiIoOuU][a-zA-Z]*\b' war-and-peace
.txt | grep -E '^d..$'
don
did
did
did
don
don
did
don
don
don
don
did
don
did
did
day
did
did
duc
did
duc
```



A terminal window titled "Tilix: nop@cis106: ~/Documents/Books" with standard window controls. The prompt is "1: nop@cis106: ~/Documents/Books". The command executed is `grep -oE '\b\w*([a-zA-Z])\1[a-zA-Z]*([a-zA-Z])\2\b' dracula.txt`. The output lists 20 words in red text: XXII, XXIII, XXVII, needless, prepossessing, oppressive, successful, happiness, ruddiness, stillness, coffee, remissness, shrillness, occasionally, helplessness, sleepless, bitterness, inaccessible, sweetness, offensiveness, soulless, and impressiveness.

```
1: nop@cis106: ~/Documents/Books
nop@cis106:~/Documents/Books$ grep -oE '\b\w*([a-zA-Z])\1[a-zA-Z]*([a-zA-Z])\2\b' dracula.txt
XXII
XXIII
XXVII
needless
prepossessing
oppressive
successful
happiness
ruddiness
stillness
coffee
remissness
shrillness
occasionally
helplessness
sleepless
bitterness
inaccessible
sweetness
offensiveness
soulless
impressiveness
```

&lt;