Lab 8 Submission

Practice Question 1

Practice Question 2

```
Just Right Crunchy  Nuggets calories = 110
Just Right Fruit & Nut calories = 140
Kix calories = 110
Life calories = 100
Lucky Charms calories = 110
Maypo calories = 100
Muesli Raisins, Dates, & Almonds calories = 150
Muesli Raisins, Peaches, & Pecans calories = 150
Mueslix Crispy Blend calories = 160
Multi-Grain Cheerios calories = 100
Nut&Honey Crunch calories = 120
Nutri-Grain Almond-Raisin calories = 140
Nutri-grain Wheat calories = 90
Oatmeal Raisin Crisp calories = 130
Post Nat. Raisin Bran calories = 120
Product 19 calories = 100
Puffed Rice calories = 50
Puffed Wheat calories = 50
Quaker Oat Squares calories = 100
Quaker Oatmeal calories = 100
Raisin Bran calories = 120
Raisin Nut Bran calories = 100
Raisin Squares calories = 90
Rice Chex calories = 110
Rice Krispies calories = 110
Shredded Wheat calories = 80
Shredded Wheat 'n'Bran calories = 90
Shredded Wheat spoon size calories = 90
Smacks calories = 110
Special K calories = 110
Strawberry Fruit Wheats calories = 90
Total Corn Flakes calories = 110
Total Raisin Bran calories = 140
Total Whole Grain calories = 100
Triples calories = 110
Trix calories = 110
Wheat Chex calories = 100
Wheaties calories = 100
Wheaties Honey Gold calories = 110


  history                                                   17:16

  1  cut -d":" -f1 /etc/passwd
  2  cut -d":" -f1,6 /etc/passwd
  3  cut -d":" -f1,6,7 --output-delimiter=" > " /etc/passwd
  4  cut -d";" -f1 ~/Documents/sample_files/Csv/cereal.csv
  5  cut -d";" -f1,4 --output-delimiter=" calories = " ~/Documents/sample_files/Csv/cereal.csv


                                                            17:16
```

Practice Question 3

```
Toyota Corolla Liftback;26.0;4;97.00;75.00;2265.;18.2;77;Japan
Toyota Corolla Liftback;29.8;4;134.0;90.00;2711.;15.5;80;Japan
Toyota Corolla Mark ii;24.0;4;113.0;95.00;2372.;15.0;70;Japan
Toyota Corolla Mark II (sw);23.0;4;120.0;97.00;2506.;14.5;72;Japan
Toyota Corolla Tercel;38.1;4;89.00;60.00;1968.;18.8;80;Japan
Toyota Cressida;25.4;6;168.0;116.0;2900.;12.6;81;Japan
Toyota Mark II;19.0;6;156.0;108.0;2930.;15.5;76;Japan
Toyota Mark II;20.0;6;156.0;122.0;2807.;13.5;73;Japan
Toyota Starlet;39.1;4;79.00;58.00;1755.;16.9;81;Japan
Toyota Tercel;37.7;4;89.00;62.00;2050.;17.3;81;Japan
Triumph TR7 Coupe;35.0;4;122.0;88.00;2500.;15.1;80;Europe
Volkswagen 1131 Deluxe Sedan;26.0;4;97.00;46.00;1835.;20.5;70;Europe
Volkswagen 411 (sw);22.0;4;121.0;76.00;2511.;18.0;72;Europe
Volkswagen Dasher;25.0;4;90.00;71.00;2223.;16.5;75;Europe
Volkswagen Dasher;26.0;4;79.00;67.00;1963.;15.5;74;Europe
Volkswagen Dasher;30.5;4;97.00;78.00;2190.;14.1;77;Europe
Volkswagen Dasher (diesel);43.4;4;90.00;48.00;2335.;23.7;80;Europe
Volkswagen Jetta;33.0;4;105.0;74.00;2190.;14.2;81;Europe
Volkswagen Model 111;27.0;4;97.00;60.00;1834.;19.0;71;Europe
Volkswagen Pickup;44.0;4;97.00;52.00;2130.;24.6;82;Europe
Volkswagen Rabbit;29.0;4;90.00;70.00;1937.;14.0;75;Europe
Volkswagen Rabbit;29.0;4;90.00;70.00;1937.;14.2;76;Europe
Volkswagen Rabbit;29.5;4;97.00;71.00;1825.;12.2;76;Europe
Volkswagen Rabbit;29.8;4;89.00;62.00;1845.;15.3;80;Europe
Volkswagen Rabbit;41.5;4;98.00;76.00;2144.;14.7;80;Europe
Volkswagen Rabbit C (Diesel);44.3;4;90.00;48.00;2085.;21.7;80;Europe
Volkswagen Rabbit Custom;29.0;4;97.00;78.00;1940.;14.5;77;Europe
Volkswagen Rabbit Custom;31.9;4;89.00;71.00;1925.;14.0;79;Europe
Volkswagen Rabbit Custom Diesel;43.1;4;90.00;48.00;1985.;21.5;78;Europe
Volkswagen Rabbit l;36.0;4;105.0;74.00;1980.;15.3;82;Europe
Volkswagen Scirocco;31.5;4;89.00;71.00;1990.;14.9;78;Europe
Volkswagen Super Beetle 117;0;4;97.00;48.00;1978.;20.0;71;Europe
Volkswagen Super Beetle;26.0;4;97.00;46.00;1950.;21.0;73;Europe
Volkswagen Type 3;23.0;4;97.00;54.00;2254.;23.5;72;Europe
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


  sort -o sorted_cars.csv cars.csv                    sample_files/Csv    17:21


  wc -l sorted_cars.csv                               sample_files/Csv    17:21
408 sorted_cars.csv


  wc -m sorted_cars.csv                               sample_files/Csv    17:22
22663 sorted_cars.csv


                                                      sample_files/Csv    17:22
```

Challenge Question

Question 1

```
◎ wc -l access.log                                    ⌂ 17:53
100 access.log


◎ head -n 1 access.log                                ⌂ 17:54
2025-12-18 04:22:18 Ken /admin DENIED


◎ tac access.log | head -n 1                          ⌂ 17:54
2025-05-11 10:43:40 Spike /404 DENIED


◎ head -n 15 access.log                               ⌂ 17:55
2025-12-18 04:22:18 Ken /admin DENIED
2025-05-09 21:34:20 Asimov /login DENIED
2025-01-05 08:09:40 Ken /upload DENIED
2025-05-05 04:45:02 Spike /admin FAIL
2025-03-17 06:12:16 Shinji /reset DENIED
2025-02-28 04:59:26 Arisu /404 SUCCESS
2025-03-15 23:05:12 Ein /logout DENIED
2025-04-08 02:31:39 Seras /admin DENIED
2025-03-17 00:55:09 Touka /logout FAIL
2025-02-15 02:41:08 Arisu /settings SUCCESS
2025-11-02 00:34:23 Honami /settings DENIED
2025-04-03 22:46:48 Ein /login DENIED
2025-12-12 06:25:27 Touka /logout DENIED
2025-01-01 05:25:12 Jet /logout SUCCESS
2025-03-18 08:01:39 Spike /settings FAIL


◎ tail -n 15 access.log                               ⌂ 17:55
2025-07-02 05:36:16 Spike /login FAIL
2025-03-25 07:54:46 Honami /login FAIL
2025-05-23 16:54:26 Ken /upload SUCCESS
2025-01-14 11:09:24 Haruka /settings DENIED
2025-07-17 21:34:27 Eren /logout SUCCESS
2025-01-03 12:55:48 Shinji /reset SUCCESS
2025-12-20 19:10:11 Ein /404 DENIED
2025-01-06 05:35:46 Jet /download DENIED
```

Question 2

```
◎ wc -l access.log                                    ⌂ 17:53
100 access.log


◎ head -n 1 access.log                                ⌂ 17:54
2025-12-18 04:22:18 Ken /admin DENIED


◎ tac access.log | head -n 1                          ⌂ 17:54
2025-05-11 10:43:40 Spike /404 DENIED


◎ head -n 15 access.log                               ⌂ 17:55
2025-12-18 04:22:18 Ken /admin DENIED
2025-05-09 21:34:20 Asimov /login DENIED
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2025-03-17 00:55:09 Touka /logout FAIL
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2025-12-12 06:25:27 Touka /logout DENIED
2025-01-01 05:25:12 Jet /logout SUCCESS
2025-03-18 08:01:39 Spike /settings FAIL


◎ tail -n 15 access.log                               ⌂ 17:55
2025-07-02 05:36:16 Spike /login FAIL
2025-03-25 07:54:46 Honami /login FAIL
2025-05-23 16:54:26 Ken /upload SUCCESS
2025-01-14 11:09:24 Haruka /settings DENIED
2025-07-17 21:34:27 Eren /logout SUCCESS
2025-01-03 12:55:48 Shinji /reset SUCCESS
2025-12-20 19:10:11 Ein /404 DENIED
2025-01-06 05:35:46 Jet /download DENIED
```

Question 3

/

```
                                          Terminal
 wc -l access.log                                  17:53
100 access.log


 head -n 1 access.log                              17:54
2025-12-18 04:22:18 Ken /admin DENIED


 tac access.log | head -n 1                        17:54
2025-05-11 10:43:40 Spike /404 DENIED


 head -n 15 access.log                             17:55
2025-12-18 04:22:18 Ken /admin DENIED
2025-05-09 21:34:20 Asimov /login DENIED
2025-01-05 08:09:40 Ken /upload DENIED
2025-05-05 04:45:02 Spike /admin FAIL
2025-03-17 06:12:16 Shinji /reset DENIED
2025-02-28 04:59:26 Arisu /404 SUCCESS
2025-03-15 23:05:12 Ein /logout DENIED
2025-04-08 02:31:39 Seras /admin DENIED
2025-03-17 00:55:09 Touka /logout FAIL
2025-02-15 02:41:08 Arisu /settings SUCCESS
2025-11-02 00:34:23 Honami /settings DENIED
2025-04-03 22:46:48 Ein /login DENIED
2025-12-12 06:25:27 Touka /logout DENIED
2025-01-01 05:25:12 Jet /logout SUCCESS
2025-03-18 08:01:39 Spike /settings FAIL


 tail -n 15 access.log                             17:55
2025-07-02 05:36:16 Spike /login FAIL
2025-03-25 07:54:46 Honami /login FAIL
2025-05-23 16:54:26 Ken /upload SUCCESS
2025-01-14 11:09:24 Haruka /settings DENIED
2025-07-17 21:34:27 Eren /logout SUCCESS
2025-01-03 12:55:48 Shinji /reset SUCCESS
2025-12-20 19:10:11 Ein /404 DENIED
2025-01-06 05:35:46 Jet /download DENIED
```

Question 4

```
                                          Terminal
 wc -l access.log                                  17:53
100 access.log


 head -n 1 access.log                              17:54
2025-12-18 04:22:18 Ken /admin DENIED


 tac access.log | head -n 1                        17:54
2025-05-11 10:43:40 Spike /404 DENIED


 head -n 15 access.log                             17:55
2025-12-18 04:22:18 Ken /admin DENIED
2025-05-09 21:34:20 Asimov /login DENIED
2025-01-05 08:09:40 Ken /upload DENIED
2025-05-05 04:45:02 Spike /admin FAIL
2025-03-17 06:12:16 Shinji /reset DENIED
2025-02-28 04:59:26 Arisu /404 SUCCESS
2025-03-15 23:05:12 Ein /logout DENIED
2025-04-08 02:31:39 Seras /admin DENIED
2025-03-17 00:55:09 Touka /logout FAIL
2025-02-15 02:41:08 Arisu /settings SUCCESS
2025-11-02 00:34:23 Honami /settings DENIED
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2025-12-12 06:25:27 Touka /logout DENIED
2025-01-01 05:25:12 Jet /logout SUCCESS
2025-03-18 08:01:39 Spike /settings FAIL


 tail -n 15 access.log                             17:55
2025-07-02 05:36:16 Spike /login FAIL
2025-03-25 07:54:46 Honami /login FAIL
2025-05-23 16:54:26 Ken /upload SUCCESS
2025-01-14 11:09:24 Haruka /settings DENIED
2025-07-17 21:34:27 Eren /logout SUCCESS
2025-01-03 12:55:48 Shinji /reset SUCCESS
2025-12-20 19:10:11 Ein /404 DENIED
2025-01-06 05:35:46 Jet /download DENIED
```

Question 5

```
⊙ wc -l access.log                              ⌂ 17:53
100 access.log


⊙ head -n 1 access.log                          ⌂ 17:54
2025-12-18 04:22:18 Ken /admin DENIED


⊙ tac access.log | head -n 1                    ⌂ 17:54
2025-05-11 10:43:40 Spike /404 DENIED


⊙ head -n 15 access.log                         ⌂ 17:55
2025-12-18 04:22:18 Ken /admin DENIED
2025-05-09 21:34:20 Asimov /login DENIED
2025-01-05 08:09:40 Ken /upload DENIED
2025-05-05 04:45:02 Spike /admin FAIL
2025-03-17 06:12:16 Shinji /reset DENIED
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2025-03-15 23:05:12 Ein /logout DENIED
2025-04-08 02:31:39 Seras /admin DENIED
2025-03-17 00:55:09 Touka /logout FAIL
2025-02-15 02:41:08 Arisu /settings SUCCESS
2025-11-02 00:34:23 Honami /settings DENIED
2025-04-03 22:46:48 Ein /login DENIED
2025-12-12 06:25:27 Touka /logout DENIED
2025-01-01 05:25:12 Jet /logout SUCCESS
2025-03-18 08:01:39 Spike /settings FAIL


⊙ tail -n 15 access.log                         ⌂ 17:55
2025-07-02 05:36:16 Spike /login FAIL
2025-03-25 07:54:46 Honami /login FAIL
2025-05-23 16:54:26 Ken /upload SUCCESS
2025-01-14 11:09:24 Haruka /settings DENIED
2025-07-17 21:34:27 Eren /logout SUCCESS
2025-01-03 12:55:48 Shinji /reset SUCCESS
2025-12-20 19:10:11 Ein /404 DENIED
2025-01-06 05:35:46 Jet /download DENIED
```

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