

Activity 1

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Create a bulleted list of five analytics queries or questions that a person may have about this data set. These would be questions that an analyst examining the data might be pondering.

- How does the type affect the other factors of the cereals?
- Does the manufacturer of the cereal affect the type?
- Do the number of vitamins have an affect on the number of calories?
- What do the negative numbers in the cups section represent?
- Do the Quaker Oats numbers being so low mean the cereal is worse than the other brands or better?

Create bulleted list of five "insights", chunks of knowledge, or deeper questions that you either encountered or gained while exploring the data. An insight could be some understanding of the data and its characteristics that is not relatively obvious or intuitive. It is something that most people might not realize initially. Note that an insight or knowledge chunk simply may be a deeper question that arose in your mind while exploring the data. And your analysis may not have been sufficient to answer the question.

- After thoroughly looking through the data it does not look like there is not one specific factor that depends on the other. For example, one of the queries I had was if the amount of vitamins affects the number of calories, but after really looking at the data, I cannot find any solid evidence that this is accurate.
- The data for Quaker Oats being so low surprised me. It seems like this cereal adds no nutritional value other than potassium.
- In general it seems the cereals that are type H have less nutritional value than the type C cereal. These cereals are also low on calories, which a lot of the other cereals are, but the other cereals still have better nutritional values.
- Cereals that are manufactured by the same company seem to have similar data for all the fields. In this case, is it safe to assume that any cereal manufactured by the same company will provide the overall same nutritional value?
- I noticed that 100% Natural Bran also has lower nutrition values than some of the other cereals, so I decided to look up the three type H brands and 100% Natural Bran, and they are all oats. I looked through more of the ones that were listed as oats and noticed a general pattern of lower nutritional value.

Write one paragraph about the process you used to do the exploration and analysis. What did you do in Excel? Just tell briefly what you did. You can add a photo of a screenshot of Excel.

I didn't quite understand the data when I first looked at it so I really didn't know what questions to ask, what observations to make, or what even to look at. I decided to just start with some of the questions. Looking through the data, I was able to come up with the five questions

and understand it a bit more. Doing the next section with the “insights” is really more where I was able to analyze it. I decided to highlight the low nutritional value cereals with yellow, which helped me see that these cereals were oats. I highlighted the negative number of cups in red, and the cereals with the same manufactures are highlighted in green. This helped me analyze the data much better and easily come up with queries and observations.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Cereal	Manufact.	Type	Calories	Protein	Fat	Sodium	Fiber	Carbohydrate	Sugars	Shelf	Potassium	Vitamins	Weight	Cups
Apple Cinnamon Cheerios	G	C	110	2	2	180	1.5	10.5	10	1	70	25	1	0.75
Basic 4	G	C	130	3	2	210	2	18	8	3	100	25	1.33	0.75
Cheerios	G	C	110	6	2	290	2	17	1	1	105	25	1	1.25
Cinnamon Toast Crunch	G	C	120	1	3	210	0	13	9	2	45	25	1	0.75
Clusters	G	C	110	3	2	140	2	13	7	3	105	25	1	0.5
Cocoa Puffs	G	C	110	1	1	180	0	12	13	2	55	25	1	1
Count Chocula	G	C	110	1	1	180	0	12	13	2	65	25	1	1
Crispy Wheat & Raisin	G	C	100	2	1	140	2	11	10	3	120	25	1	0.75
Golden Grahams	G	C	110	1	1	280	0	15	9	2	45	25	1	0.75
Honey Nut Cheerios	G	C	110	3	1	250	1.5	11.5	10	1	90	25	1	0.75
Kix	G	C	110	2	1	260	0	21	3	2	40	25	1	1.5
Lucky Charms	G	C	110	2	1	180	0	12	12	2	55	25	1	1
Multi-Grain Cheerios	G	C	100	2	1	220	2	15	6	1	90	25	1	1
Oatmeal Raisin Crisps	G	C	130	3	2	170	1.5	13.5	10	3	120	25	1.25	0.5
Raisin Nut Bran	G	C	100	3	2	140	2.5	10.5	8	3	140	25	1	0.5
Total Corn Flakes	G	C	110	2	1	200	0	21	3	3	35	100	1	1
Total Raisin Bran	G	C	140	3	1	190	4	15	14	3	230	100	1.5	1
Total Whole Grain	G	C	100	3	1	200	3	16	3	3	110	100	1	1
Triples	G	C	110	2	1	250	0	21	3	3	60	25	1	0.75
Trix	G	C	110	1	1	140	0	13	12	2	25	25	1	1
Wheaties	G	C	100	3	1	200	3	17	3	1	110	25	1	1
Wheaties Honey Grahams	G	C	110	2	1	200	1	16	8	1	60	25	1	0.75
All-Bran	K	C	70	4	1	260	9	7	5	3	320	25	1	0.33
All-Bran with Extra Fiber	K	C	50	4	0	140	14	8	0	3	330	25	1	0.5
Apple Jacks	K	C	110	2	0	125	1	11	14	2	30	25	1	1
Corn Flakes	K	C	100	2	0	290	1	21	2	1	35	25	1	1
Corn Pops	K	C	110	1	0	90	1	13	12	2	20	25	1	1
Cracklin' Oat Bran	K	C	110	3	3	140	4	10	7	3	160	25	1	0.5
Crispix	K	C	110	2	0	220	1	21	3	3	30	25	1	1
Froot Loops	K	C	110	2	1	125	1	11	13	2	30	25	1	1
Frosted Flakes	K	C	110	1	0	200	1	14	11	1	25	25	1	0.75
Frosted Mini-Wheats	K	C	100	3	0	0	3	14	7	2	100	25	1	0.8
Fruitful Bran	K	C	120	3	0	240	5	14	12	3	190	25	1.33	0.67
Just Right Crunchy	K	C	110	2	1	170	1	17	6	3	60	100	1	-1
Just Right Fruit & Nut	K	C	140	3	1	170	2	20	9	3	95	100	1.3	0.75
Muesli Crispy Blend	K	C	160	3	2	150	3	17	13	3	160	25	1.5	0.67
Nut & Honey Crunch	K	C	120	2	1	190	0	15	9	2	40	25	1	0.67
Nutri-Grain Almond-I	K	C	140	3	2	220	3	21	7	3	130	25	1.33	0.67
Nutri-grain Wheat	K	C	90	3	0	170	3	18	2	3	90	25	1	-1
Product 19	K	C	100	3	0	320	1	20	3	3	45	100	1	1
Raisin Bran	K	C	120	3	1	210	5	14	12	2	240	25	1.33	0.75
Raisin Squares	K	C	90	2	0	0	2	15	6	3	110	25	1	0.5
Rice Krispies	K	C	110	2	0	290	0	22	3	1	35	25	1	1
Smacks	K	C	110	2	1	70	1	9	15	2	40	25	1	0.75
Soocial K	K	C	110	6	0	230	1	16	3	1	55	25	1	1
100% Bran	N	C	70	4	1	130	10	5	6	3	280	25	1	0.33
Shredded Wheat	N	C	80	2	0	0	3	16	0	1	95	0	0.83	-1
Shredded Wheat 'n' N	N	C	90	3	0	0	4	19	0	1	140	0	1	0.67
Shredded Wheat so N	N	C	90	3	0	0	3	20	0	1	120	0	1	0.67
Strawberry Fruit Wh N	N	C	90	2	0	15	3	15	5	2	90	25	1	-1
Bran Flakes	P	C	90	3	0	210	5	13	5	3	190	25	1	0.67
Fruit & Fibre Dates, V	P	C	120	3	2	160	5	12	10	3	200	25	1.25	0.67
Fruity Pebbles	P	C	110	1	1	135	0	13	12	2	25	25	1	0.75
Golden Crisps	P	C	100	2	0	45	0	11	15	1	40	25	1	0.88
Grape Nuts Flakes	P	C	100	3	1	140	3	15	5	3	85	25	1	0.88
Grape-Nuts	P	C	110	3	0	170	3	17	3	3	90	25	1	0.25
Great Grains Pecan	P	C	120	3	3	75	3	13	4	3	100	25	1	0.33
Honey-comb	P	C	110	1	0	180	0	14	11	1	35	25	1	1.33
Post Nat Raisin Bran	P	C	120	3	1	200	6	11	14	3	260	25	1.33	0.67
100% Natural Bran	Q	C	120	3	5	15	2	8	8	3	135	0	1	-1
Cap'n Crunch	Q	C	120	1	2	220	0	12	12	2	35	25	1	0.75
Honey Graham Ohs	Q	C	120	1	2	220	1	12	11	2	45	25	1	1
Life	Q	C	100	4	2	150	2	12	6	2	95	25	1	0.67
Puffed Rice	Q	C	50	1	0	0	0	13	0	3	15	0	0.5	1
Puffed Wheat	Q	C	50	2	0	0	1	10	0	3	50	0	0.5	-1
Quaker Oat Squares	Q	C	100	4	1	135	2	14	6	3	110	25	1	0.5
Almond Delight	R	C	110	2	2	200	1	14	8	3	-1	25	1	0.75
Bran Chex	R	C	90	2	1	200	4	15	6	1	125	25	1	0.67
Corn Chex	R	C	110	2	0	280	0	22	3	1	25	25	1	1
Double Chex	R	C	100	2	0	190	1	18	5	3	80	25	1	0.75
Muesli Raisins, Date	R	C	150	4	3	95	3	16	11	3	170	25	-1	-1
Muesli Raisins, Peac	R	C	150	4	3	150	3	16	11	3	170	25	-1	-1
Rice Chex	R	C	110	1	0	240	0	23	2	1	30	25	1	1.13
Wheat Chex	R	C	100	3	1	230	3	17	3	1	115	25	1	0.67
Maypo	A	H	100	4	1	0	0	16	3	2	95	25	1	-1
Cream of Wheat (Qu	N	H	100	3	0	80	1	21	0	2	-1	0	1	1
Quaker Oatmeal	Q	H	100	5	2	0	2.7	-1	-1	1	110	0	1	0.67

Write one paragraph about challenges or problems that you encountered in doing the analysis this way. Did anything limit or frustrate you? If nothing did, perhaps there was something that was more difficult than you thought it should be. Nothing is perfect, so you should be able to list some potential issues here.

The biggest thing that frustrated me was our inability to use visualization tools for this activity. My first thought was to go in and make a graph or chart out of the data, but of course we could not do this so I was completely lost. There was a lot of data, and I could not think of anything. Going through and looking for insights in how I was actually able to separate things and make some observations. I still didn't completely understand the data, but going through and highlighting things, as well as looking up some of the brands was really helpful.