

# The Cereal Homework

## Data Exploration and Analysis

### Overview

The purpose of this assignment is to provide you with some experience exploring and analyzing data without using an information visualization system. Below is a dataset (that can be imported into Excel) about cereals.

The data set should be pretty self-explanatory. The Manufacturer is a one letter code with the expected mapping (Q-Quaker Oats, P-Post, G-General Mills, K-Kelloggs, R-Ralston Purina, N-Nabisco) and Type is C (cold) or H (hot).

You should explore and analyze this data using Excel or simply by hand (drawing pictures is fine), but do not use any visualization tools. Your goal here is to perform an exploratory analysis of the data set, to better understand the data set and its characteristics, and to develop insights about the cereal data.

### How long will this take?

I would guess 1-2 hours. Please don't spend more than three hours on this assignment.

### Turn in a PDF with these three things:

**1)** list (bullet list of items) 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.

**2)** Write one paragraph about the process you used to do the exploration and analysis. Did you load the data into Excel, work manually, or do both? What did you do in Excel? Did you draw pictures? Just tell me (briefly) what you did. What were the major steps?

**3)** 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.

So, to sum up, your assignment should have a bullet list of five items followed by two paragraphs.

### Grading:

We will evaluate the quality of the insights you listed. We are looking for things that we find interesting or perhaps unexpected (this is subjective, but you need to have some findings). For the second and third parts, we will evaluate if you did what the assignment asked.