Data Exploration and Analysis

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 data set (that can be imported into Excel) about cereals. You should explore and analyze this data using Excel or simply by hand (drawing pictures is fine) or with any visualization tool you are familiar with. <u>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.</u>

Your goal is to look for the following:

[1] First, 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] Second, document the process you used to examine the data. 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.

[3] Third, list any challenges or problems 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, you should have a bullet list of five "insightful" items followed by two brief descriptions of your process, and any challenges you encountered.

[4] Lastly, visually represent the data and your findings.

Data

Cereals data :

- <u>csv format</u>
- <u>xls format</u> (with excel formulas)

Description

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-Kellogg's, R-Ralston, P-Purina, N-Nabisco) and Type is C (cold) or H (hot).