a. Which two attributes are most strongly cross-correlated with each other? **Veggies and Soda (people who buy veggies are likely to not buy soda and vice versa).**

b. What is the cross-correlation coefficient of Chips with cereal? **0.19**

c. Which attribute is fish most strongly cross-correlated with? **Ignoring itself, Chips**

d. Which attribute is Veggies most strongly cross-correlated with? **Ignoring itself, YogChs**

e. According to this data, do people usually buy milk and cereal? **It's closer to yes than no, but really there isn't much correlation surprisingly, only a coefficient of 0.01 (practically nothing)**

f. Which two attributes are not strongly cross-correlated with anything? **Fruit and Salt. They have a low range of cross correlation coefficients, as well as a low sum of cross correlation coefficients. This is probably because they are very common items for everyone to buy, meaning that people who buy more or less of other stuff are not more or less likely to buy Fruit and Salt. In other words all types of people (stereotypes) are likely to buy Fruit and Salt in a certain quantity (that is not to say they will buy a lot or a little of fruit and salt, just that the type of person has no impact on how much they will buy).**

g. If you were to delete two attributes, which would you guess were irrelevant? **Fruit and Salt for the reason outlined above, though Eggs and Beans are not too far behind.**

h. If buying fish is strongly cross-correlated with another item, and buying that item is strongly highly cross-correlated with a third item, is buying fish strongly cross-correlated with the third item? Can you explain this? **No, there is not necessarily a strong cross-correlation between Fish and the third item. Imagine there is a cluster of people who love fish, and love the second item , yet are indifferent/may or may not buy the third item (a cross correlation of 0), and a second group of people that love the second item, and the third item, but are indifferent to fish. If these are our only two groups of people, we might see a high positive cross-correlation between Fish and item 2, and between item 2 and item 3, but not necessarily between Fish and item 3.**