DRILL:

Let's say we work at a credit card company and we're trying to figure out if people are going to pay their bills on time. We have everyone's purchases, split into four main categories: groceries, dining out, utilities, and entertainment. What are some ways you might use KNN to create this model? What aspects of KNN would be useful? Write up your thoughts in submit a link below.

Q: Are people going to pay their bills on time? How can we answer this? We have four main categories:

1. Groceries (considered a need)
2. Dining out (considered a luxury)
3. Utilities (considered a need)
4. Entertainment (considered a luxury)

Analysis: KNN uses “feature similarity” to predict values. One of the ways I might use KNN is to group people who have spent a lot of money on dining out and entertainment into 1 group and then grouping those who did not spend a lot of money on dining and entertainment into another group. The theory or thesis here would be that those who spent more on dining and entertainment would have more disposable income and therefore would pay their bills on time.

Another way of thinking would be that people with low grocery bills and utilities would have more leftover income to pay their credit card bill on time.

The aspect of KNN that would be useful is primarily it’s way of using feature similarity to group people into a group visually and then if the thesis is correct, pick the people that would pay their bills on time.