## Matching Logic Algorithm

For all purchases, we collect the product description and UPC code and create a word list removing common prepositions and articles. From that, we create an API query to the Food Enforcement Report from the openFDA API, searching on both the product description & code info fields from the report. All results that are returned from the Food Enforcement Report go through the same process of removing common prepositions and articles, and then we match the remaining words against the words we searched with originally. We then calculate a weighted ratio of searchable terms to matched terms. UPC matches have a higher weight in the ranking than other product name matches.