Welcome to Flavortown

Link to Dataset:
https://www.nature.com/articles/srep00196#Bib1

Project Goals

      The dataset presented has ingredients as nodes and the edges are weighted by common chemical elements. The dataset also includes a list of recipes by countries. Our goal for this project is to find complementary flavors for a given list of ingredients. This will involve traversing through the tree using BFS and finding a minimum spanning tree between a set of ingredients. For example, if I input "sugar and flower", a minimum spanning tree may contain other ingredients like "vanilla" and we would present that in a PNG of a graph as well as terminal output. We will also produce graphic outputs of flavor profiles by region as presented in the dataset. This graphical output will be an image that allows the user to see other ingredients that were not listed. It will also allow them to see ingredients that are skewed away from their initial listing but it would allow them to create a more unique recipe/dish. Our traversal will be BFS, and our two algorithms will include creating a minimum spanning tree and producing a graphical representation of the ingredients we choose to present based on the inputs. A minimum spanning tree will allow us to take the ingredients and see other ingredients that relate to the initial input ingredients.