## **Business Problem**

In this project, we will be trying to find the best location to open a new restaurant in San Francisco, California. This will be targeted to those that are either interested in opening a restaurant, or individuals that live in the area and could enjoy new places to go.

San Francisco, CA, according to US News is the #1 foodie spot in the United States. Because of this, there are many restaurants already here, so it is important to conduct research to find a location that is ideal along with not being close to too many other restaurants. We will choose some candidate locations as well as cluster information so that we can analyze it better. From this, we will be able to find the best neighborhood to create a new restaurant.

#### Data

Based on my problem that I am trying to solve, I will first try to find the number of existing restaurants in San Francisco and the types/cuisines of each of these restaurants. I will also look to find the distance between each of the restaurants as well as their proximity to the center of San Francisco. I will also be using the information of data about San Francisco residents, such as their ages, ethnicities, crime rate, and average income. I will be finding the areas through Google Maps API reverse geocoding and the locations of the neighborhoods through Foursquare API.

# Methodology

Through my research, I have decided on using 4 different attributes that could help to determine the ideal location for a new restaurant in San Francisco. The first one is crime rate. In this, it is important especially for tourists that the area you choose does not have a high crime rate. Along with this, it will save you from extra costs that might occur if someone breaks into your restaurant. It is also important to consider additional restaurants in the area, and how they are in direct competition with your restaurant. Square feet is important, because the better and more space you have, the more ideal it is to hold many guests. One more factor is visibility, making sure that it is in a proper area so others can see it and get to it.

## Results

After looking at the different venues, as well as the cuisines, we could see that there were a lot clustered in certain areas. Once we looked at the data to determine the crimes and housing prices, we found that North Beach would have a good location. Because of its easy access to other places, low crime rate, decent housing costs, and many more features, this would be a good place to open up a new restaurant.

## Conclusion

From this, I found that the best place to open a restaurant in San Francisco would be based on attributes such as housing costs and crime rate. This area would be North beach.