

# Final Report: Coursera Capstone Project

## Introduction/Business Problem:

When the world is advancing at such a rapid pace, it's a frequent occurrence that one is too tired to fix oneself a home-cooked meal. And of course, even if one gets home-cooked meals every day, it is not unusual to want to go out for a good meal every once in a while for social/recreational purposes. Either way, it's a commonly understood idea that regardless of where one lives, the food one eats is an important aspect of the lifestyle one leads.

At the moment, we already have a plethora of restaurants to choose from, but often are left indecisive due to the amount of options we have. Sometimes we want to try something new, or perhaps take someone to a high-profile, fine dining location. Sometimes we just come home tired and just want a comfort food dish which we know we will like. I refer to this as a 'taste profile'.

Now, imagine a scenario where a person has newly moved into a new location. They already have certain preferences, certain tastes. It would be valuable to be able to predict exactly where they would prefer to go to eat, if and when they do. Imagine how much more a food delivery app could sell if the *very first dish or restaurant they recommended turned out to be the customer's (new) favourite dish!*

Food delivery apps aside, managers of restaurant chains and hotels can also leverage this information. For example, if a manager of a restaurant already knows the demographic of his current customers, they'd ideally want to open at a location where this demographic is at its highest concentration, ensuring short commute times to the location and more customers served. If potential hotel locations are being evaluated, a site that caters to a wide variety of tastes would be ideal, since one would want every guest to have something to their liking.

Essentially, the problem statement is this:

***"How can one evaluate the eating habits of a customer to recommend the ideal location for them to stay, to maximise the likelihood that they will find their most-liked cuisines?"***