



# What's cooking!

A DATA DRIVEN STUDY

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## Introduction

As part of continuous improvement of the overall quality of life in the city of San Francisco, it is important for the City Council and the Mayor's office to manage high standards when it comes to restaurants. From ensuring that they are profitable to maintaining proper standards, from well-known cuisines to new ones, it is important to acknowledge that restaurants are a big part of San Francisco lifestyle. This has a direct impact to the lifestyle and enjoyment of the residents of the city as well as thousands of visitors that come to San Francisco to enjoy everything that this city has to offer. San Francisco has maintained a diverse and culturally rich reputation among all the major cities in the United States of America. From the proximity to Silicon Valley to the arts to the culinary experiences, Golden Gate Bridge to Sonoma valley, coffee shops to restaurants – San Francisco has so much to offer to the people.

The City Council understands the importance of this and therefore it is important to ensure the safety standards of its restaurants and improve the reputation of the city.

## Business Problem

In the upcoming 2020 financial budget, the City Council wants to allocate funds to set up **3 new food hubs in the city. These would feature restaurants with 3 different cuisines.**

Additionally, the City wants to propose the shutting down of restaurants in the same neighbourhoods where the new hubs will be proposed as replacements. The aim of this study is to evaluate the current status of restaurants and their quality results. From there we need to identify the best neighbourhoods that should get the new food hubs and 3 cuisines for each. The study should give a full breakdown of the restaurants' data, provide clarity in identifying the right cuisine, recommend based on data the best neighbourhoods to have these new food hubs.

## Required Data

In order to make this analysis comprehensive, we are looking at available data of restaurants in SFO, retrieved from this website.

<https://www.kaggle.com/san-francisco/sf-restaurant-scores-lives-standard>

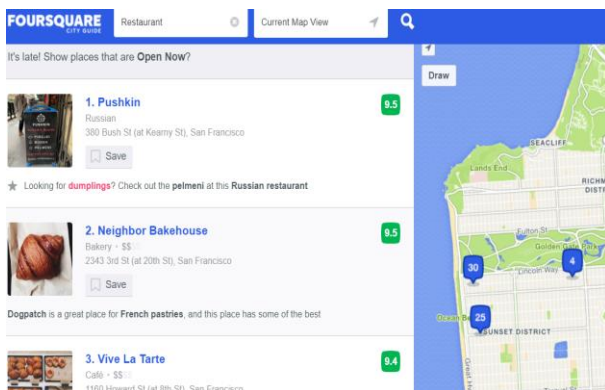
An extract of the data from the above source is shown below:

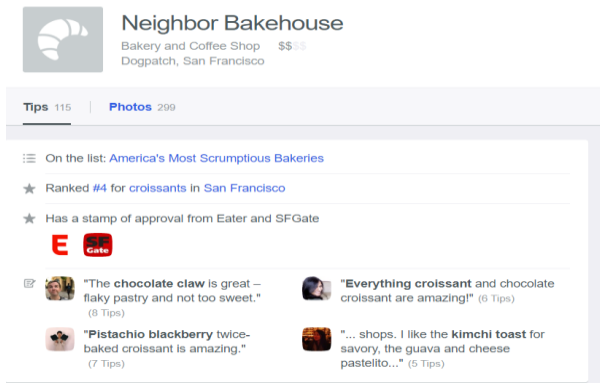
A	B	C	D	E	F	G	H
business_id	business_name	business_address	business_city	business_state	business_zip	business_latitude	business_longitude
97975	BREADBELLY	1408 Clement St	San Francisco	CA	94118		
69487	Hakkasan San Francisco	1 Kearny St	San Francisco	CA	94108		
91044	Chopsticks Restaurant	4615 Mission St	San Francisco	CA	94112		
85987	Tselogs	552 Jones St	San Francisco	CA	94102		
96024	Fig & Thistle Market	691 14th St	San Francisco	CA	94114		
97503	Moscone South Main Kitchen	747 Howard St	San Francisco	CA	94103		
97830	CHARLES CHOCOLATES	2650 18th St	San Francisco	CA	94110		
97748	FISTFUL OF TACOS	201 Harrison St	San Francisco	CA	94105		
77901	The Estate Kitchen, LLC	799 Bryant St	San Francisco	CA	94107		
87782	Beloved Cafe	3338 24th St	San Francisco	CA	94110		
77442	Gashead Tavern	2351 Mission St	San Francisco	CA	94110		
83423	Carbon Grill	852 Clement St	San Francisco	CA	94118		
101081	Vending out of Pizza 200	1 Warriors Way	San Francisco	CA	94158		

L	M	N	O	P	Q
inspection_date	inspection_id	inspection_type	violation_id	violation_description	risk_category
2019-07-25T00:00:00	96	Routine - Unscheduled	97975_20190	Inadequately clean	Moderate Risk
2018-04-18T00:00:00	88	Routine - Unscheduled	69487_20180	Inadequate and inadequate	Moderate Risk
2017-08-18T00:00:00.000		Non-inspection site visit			
2018-04-12T00:00:00	94	Routine - Unscheduled	85987_20180	Improper thawing of	Moderate Risk
2018-11-08T00:00:00.000		New Ownership - Followup			
2018-09-11T00:00:00.000		New Ownership			
2018-11-28T00:00:00.000		New Construction			
2018-08-21T00:00:00.000		Reinspection/Followup			
2018-04-16T00:00:00	86	Routine - Unscheduled	77901_20180	Improper food storage	Low Risk
2018-05-02T00:00:00	96	Routine - Unscheduled	87782_20180	Low risk vermin infestation	Low Risk
2018-08-14T00:00:00.000		Reinspection/Followup			
2019-01-10T00:00:00.000		Reinspection/Followup			
2019-08-12T00:00:00.000		New Ownership - Followup			
2018-12-28T00:00:00	100	Routine - Unscheduled			
2018-03-02T00:00:00.000		New Ownership - Followup			
2019-06-12T00:00:00.000		Reinspection/Followup			
2019-07-14T00:00:00.000		Reinspection/Followup			

Based on this data, the idea is to do an analysis of the neighbourhoods, type of restaurants, number of quality violations based on cuisine in the neighbourhoods.

Foursquare Data will be used to get user reviews of the restaurants as well to get a balanced view of both Quality Inspectors and the general public.





We need to give a balanced recommendation factoring user experience as well as inspection scores to provide the final recommendation on the neighbourhoods as well as cuisines for the food hubs that would **replace** existing restaurants.