

Food for thought



A comprehensive analysis of cuisines
in American Metropolitan cities

START

Group Members



ANURAG



STUTI



CHETNA



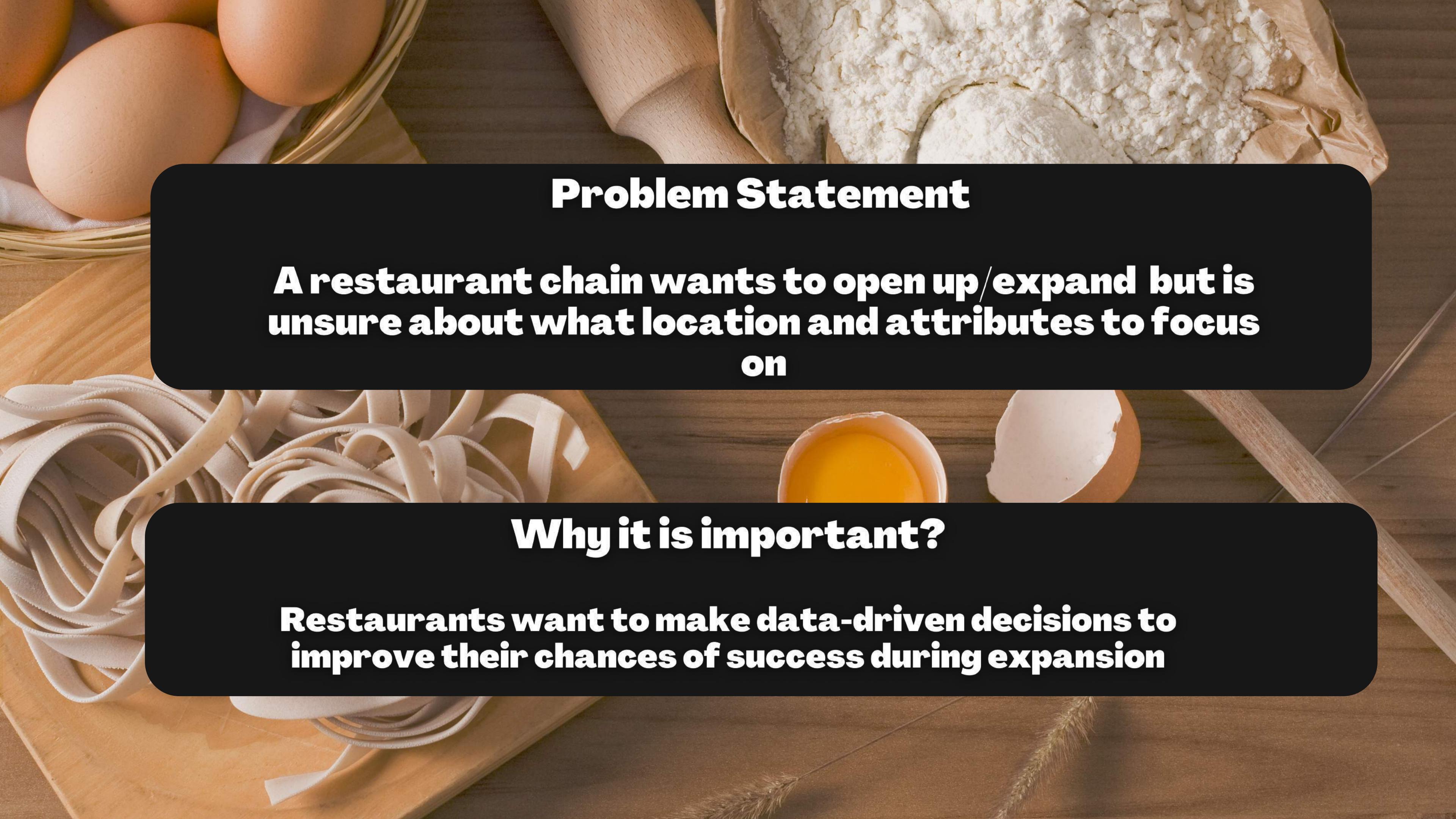
ASAD



ANKIT



YAMINI



Problem Statement

A restaurant chain wants to open up/expand but is unsure about what location and attributes to focus on

Why it is important?

Restaurants want to make data-driven decisions to improve their chances of success during expansion

Solution

A close-up photograph of a meal. In the foreground, there's a sandwich with white bread, some lettuce, and possibly cheese or meat. Behind it is a salad with green leaves and some orange elements, possibly carrots or bell peppers. To the right, there's a dark-colored drink in a glass with a black straw. The background is slightly blurred.

The image serves as a visual metaphor for the food and drink industry, specifically for meal recommendations.

Recommendation
cuisine and food
attributes depending
on location

Recommendation
optimum location for
a combination of
cuisines and
attributes

Data Collection

SOURCE Yelp Reviews

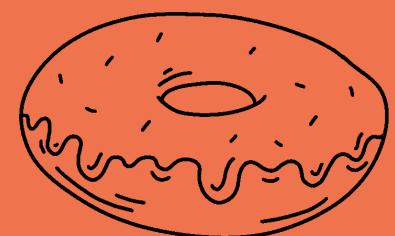
METHOD Scraping - Beautiful Soup
API - Only fetches 3 reviews at a time

Cuisines



01

American



02

Italian



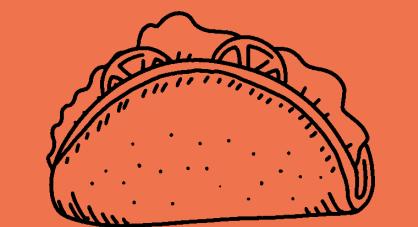
03

Asian



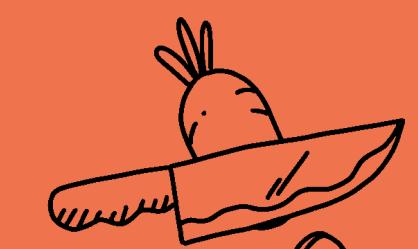
04

Tex-mex



05

Mediterranean

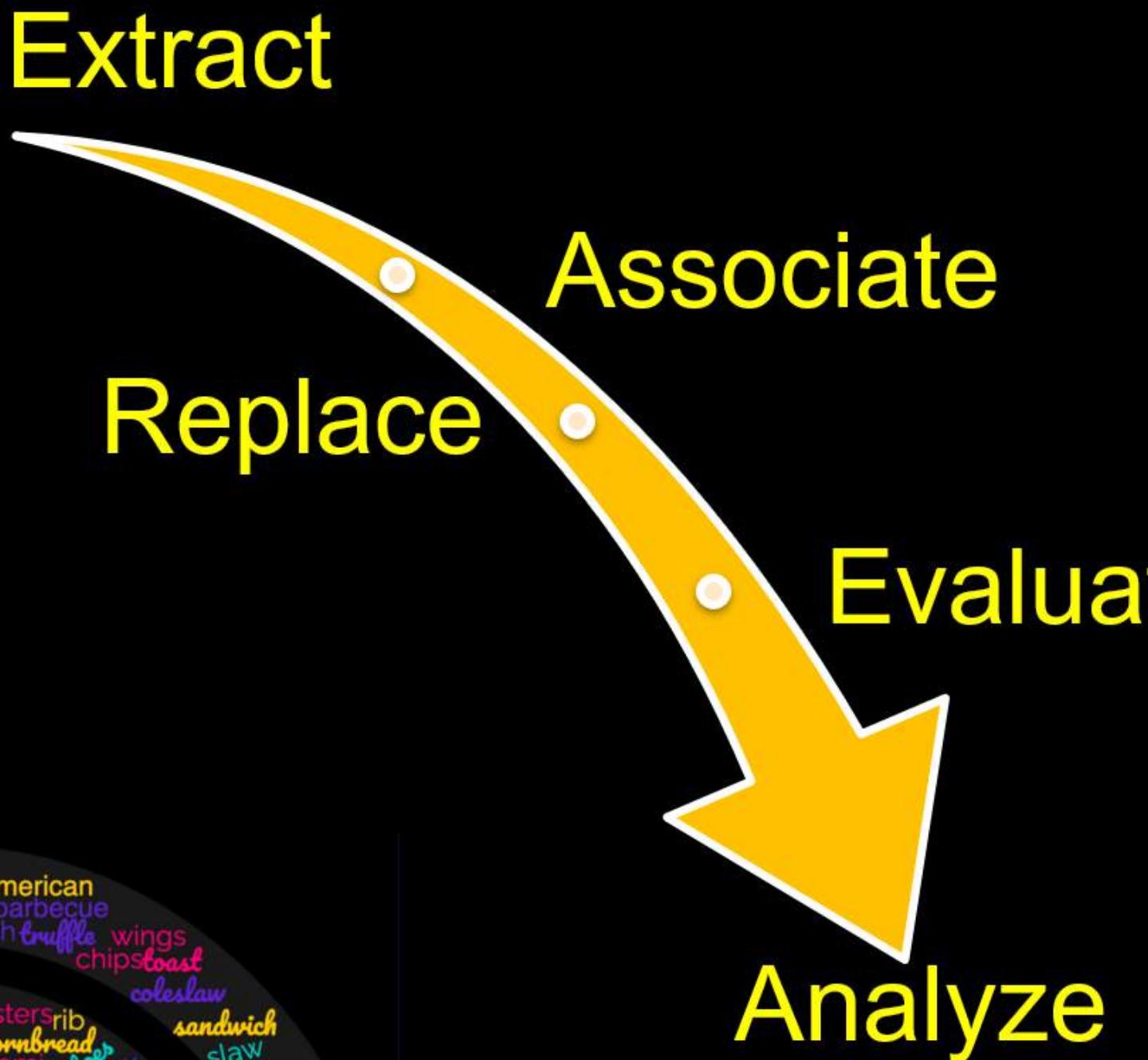


06

French



The recipe ?



Aha!





Analysis and Results

SEQUENCE OF ANALYSIS

A

**WORD-
FREQUENCY
ANALYSIS**

B

LIFT ANALYSIS

C

**SENTIMENT
ANALYSIS**

D

**SIMILARITY +
RECOMMENDATION
ENGINE**





WORD-FREQUENCY ANALYSIS

West

- American > Italian > Asian

Northeast

- American > Asian > Italian

Southwest

- American > Texmex > Asian

Southeast

- American > Asian > Texmex

Identified top food-related attributes to perform association of each cuisine and attribute

WEST

SOUTH EAST

american american restaurant one eat really prime american little worth love spot even take day first said buffetside two know lot people full flavor asian asiasian
italian american seafood texmex american overall hour vegas loved will go
food definitely asian come back in much
experience pretty always texmex try meal bad
order perfect server dishbit well line course food tasty
friend dish make came everything
fresh think reservation taste better
drink n't way though went to table
dinner want menu service american tasty made dessert still
place



NORTH EAST

A collage of restaurant reviews from various sources, featuring words like "tasty", "italian", "american", "asian", "place", "order", "service", and "experience".

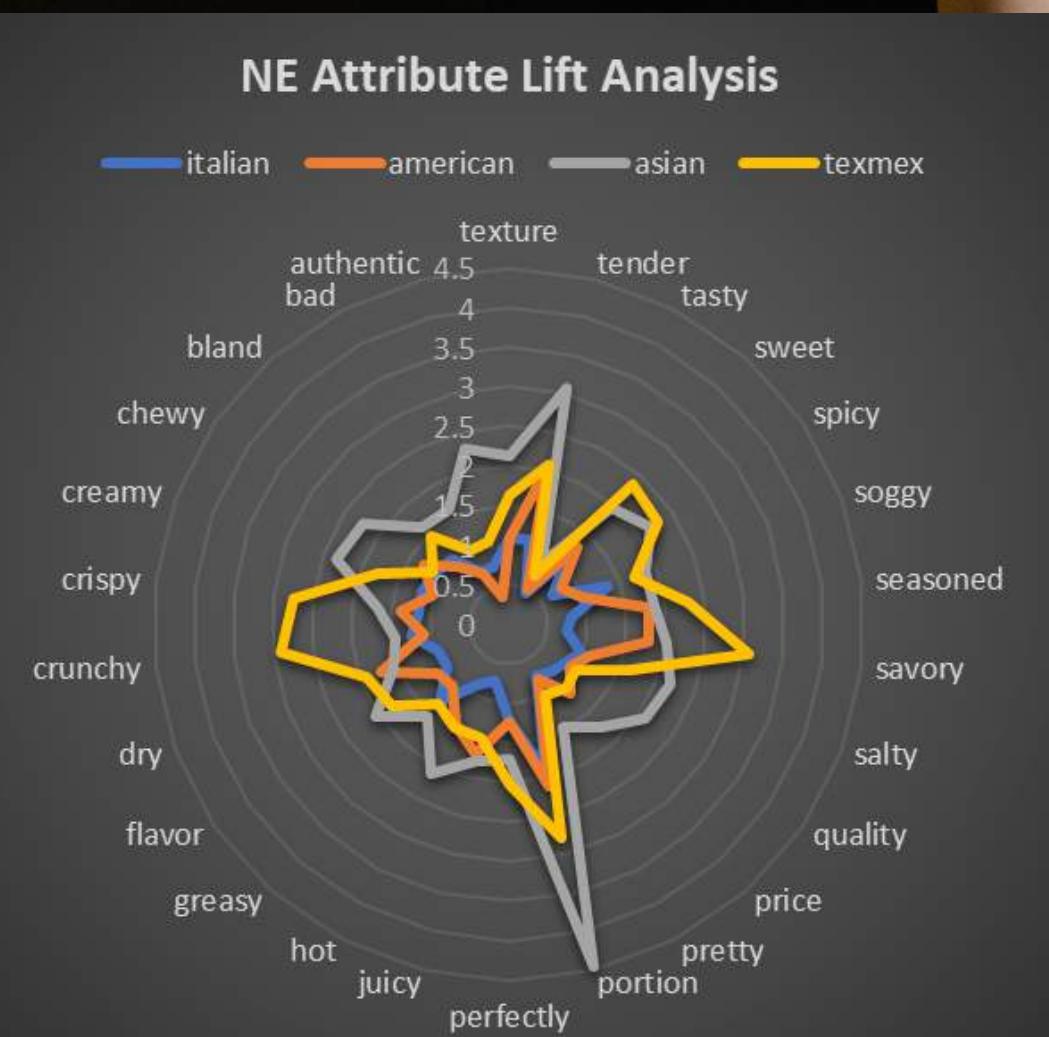
West lift analysis



SW lift analysis



NE Attribute Lift Analysis



LIFT
ANALYSIS

SE Lift analysis



LIFT AND SENTIMENT ANALYSIS

SOUTHWEST

	Italian	Texmex	Asian
Authentic	2.92	2.9	3.3
Flavor	3.5	3.02	3.02
Portion	3.27	3.77	3.13

- Authentic + Italian : High Lift, Low Sentiment
- Authentic + Asian : High Lift, High Sentiment

- Greasy + Italian :

Highly negative score

- Juicy + American :

Highly positive Lift,

High Sentiment

SOUTHEAST

	Italian	American	Asian	Texmex
dry	2.276092	2.178526	2.748659	2.24513
juicy	2.289618	3.052774	2.705458	3.310943
soggy	1.98848	2.482734	1.715255	2.745597
greasy	0.177959	2.034438	2.215423	1.910934

LIFT AND SENTIMENT ANALYSIS

NORTHEAST

NE	Asian	TexMex	American
Portion	5.17	3.54	2.88
Tender	3.8	2.79	3.8
Spicy	2.828	2.4	1.49
Savory	2.92	3.973	2.69

- Asian + Portion : Very High Lift and Sentiment
- Spicy + American : Very Low Score
- Savory + TexMex : High +Score

- Flavor +Asian : Very High Score
- Spice +American : Significantly Low Score
- Authentic + American : ← Low Score
- Authentic + Asian : Pretty Good Score

WEST

West	Asian	TexMex	American
Flavor	5	3.97	2.79
Spice	2.81	3.6	1.86
Texture	3.16	2.95	1.4
Authentic	3.07	2.74	1.23

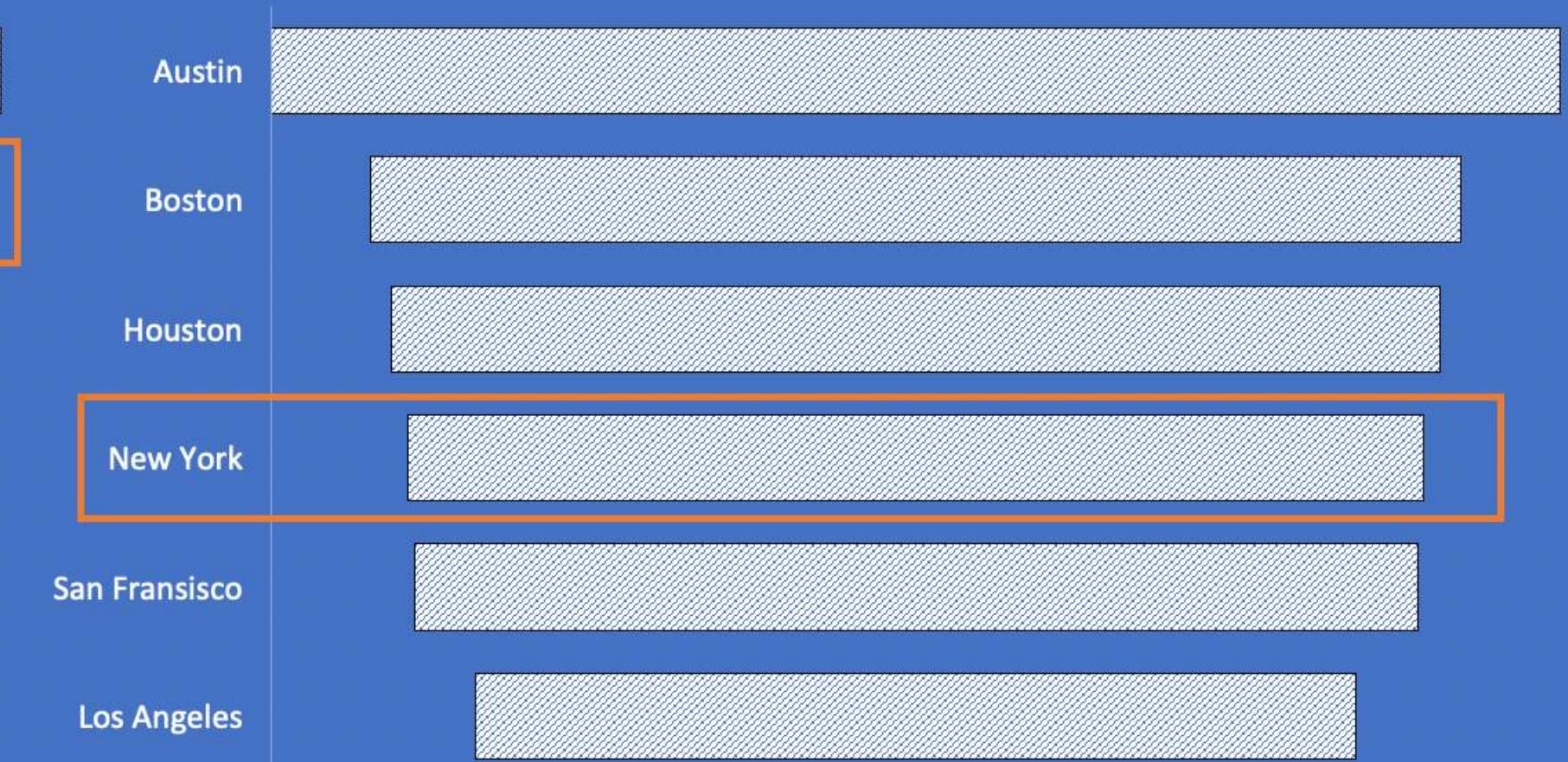
ATTRIBUTE BASED RECOMMENDATION

- Picked three attributes based on cuisine
- Converted every review into a vector of three attributes
- Calculated sentiment + cosine similarity for each review

AMERICAN - INDOOR - TASTY



AMERICAN - PRICE - TASTY

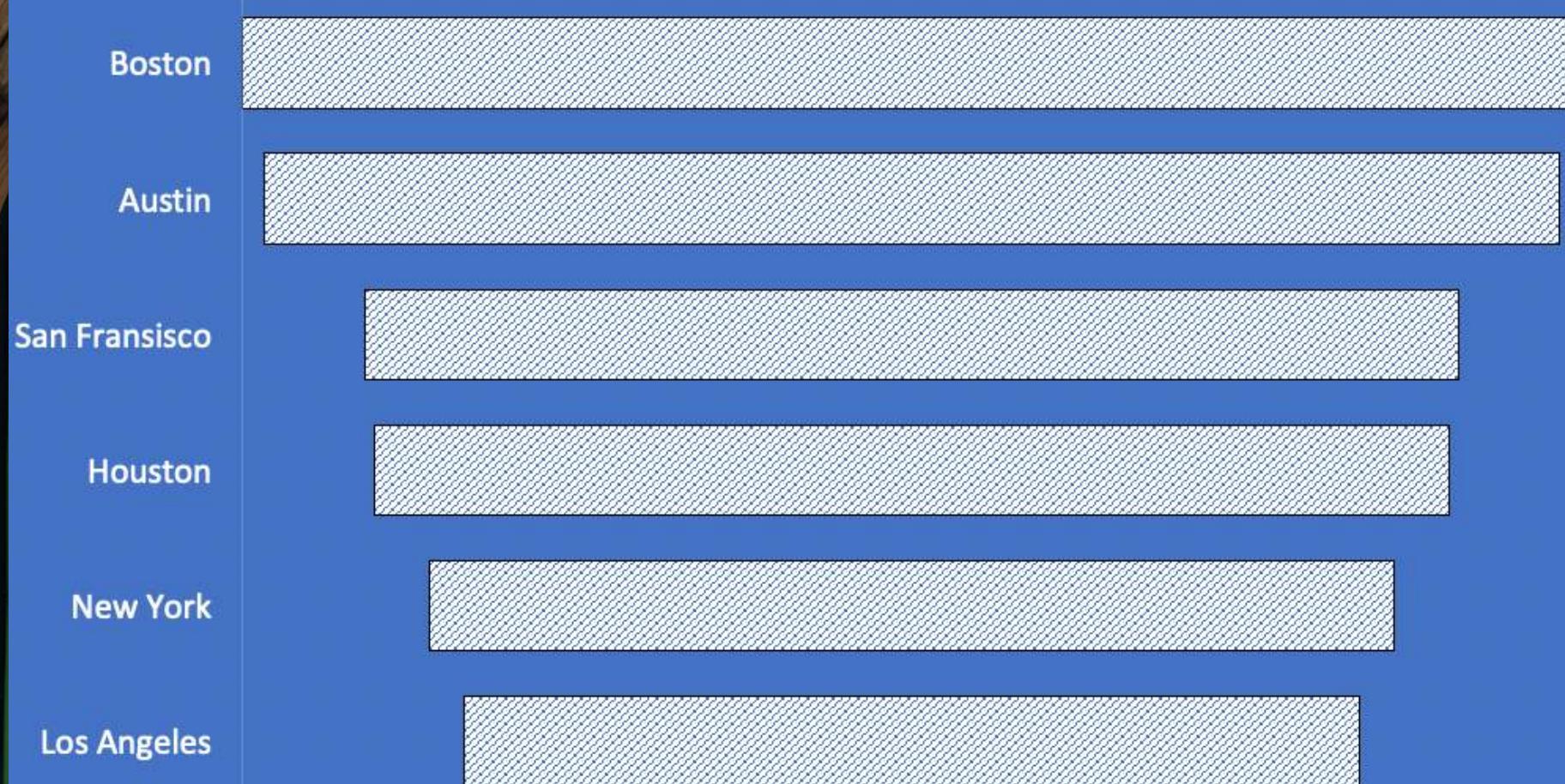


New York + Price = :(

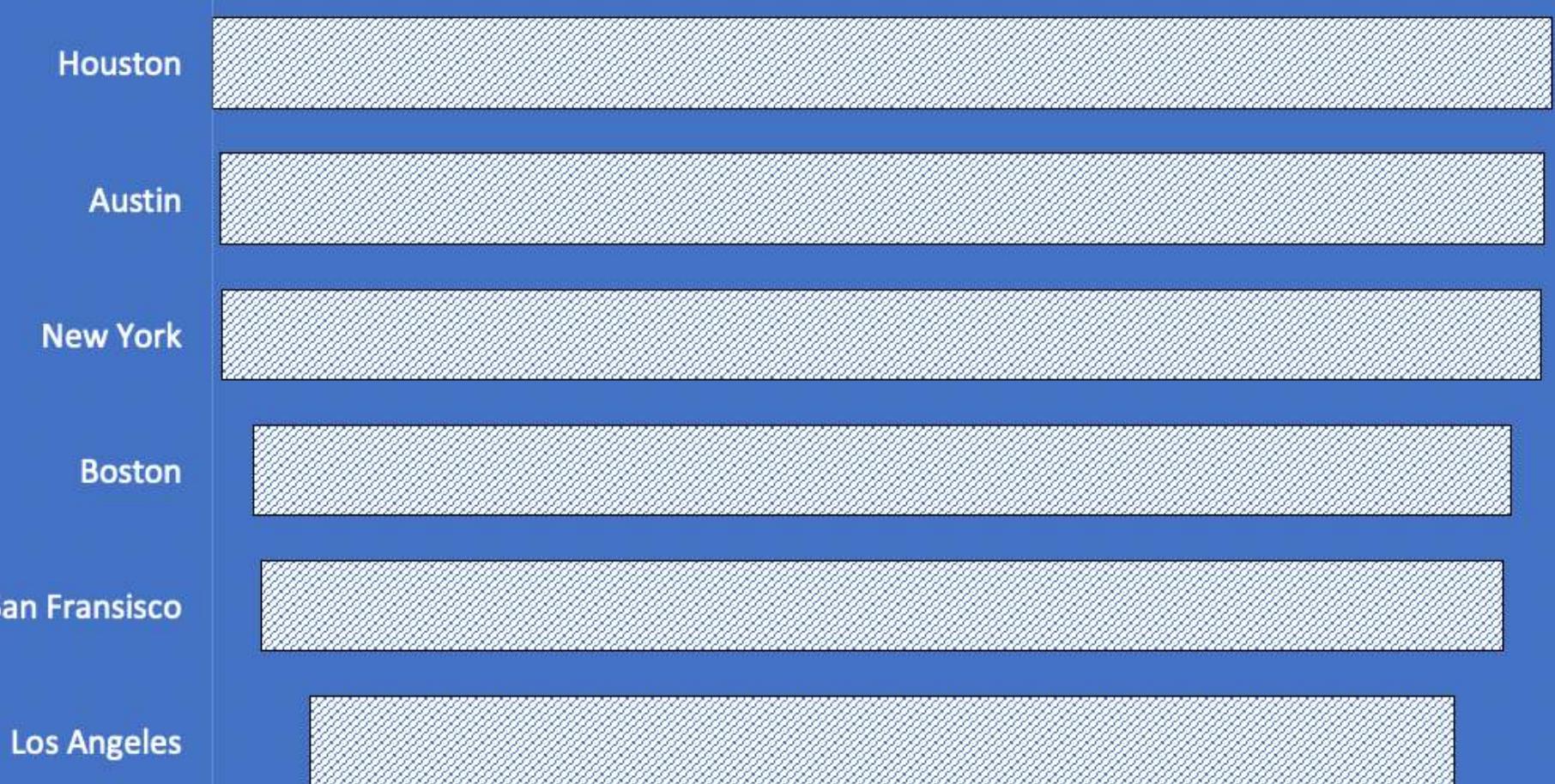
ATTRIBUTE BASED RECOMMENDATION

- Price has a bigger negative impact in American cuisine restaurants located in NY
- LA and SF on average have a sentiment score much lower than other cities
- Austin has among the highest sentiment scores for all cuisines

ITALIAN - PORTION - FLAVOR



ASIAN - SPICY - FLAVOR



Wrapped Up !



- There is dominance of certain cuisine in certain regions. eg: In Southern Region there is significant prominence of TexMex cuisine. While in North East there Italian is pretty popular
- For the same cuisine the impacting food attributes differ from region to region. eg: In NorthEast and West region we see presence of American cuisine, but in NorthEast they talk about Tender and Savory, While in West they talk about Authenticity and Texture



Thank you!