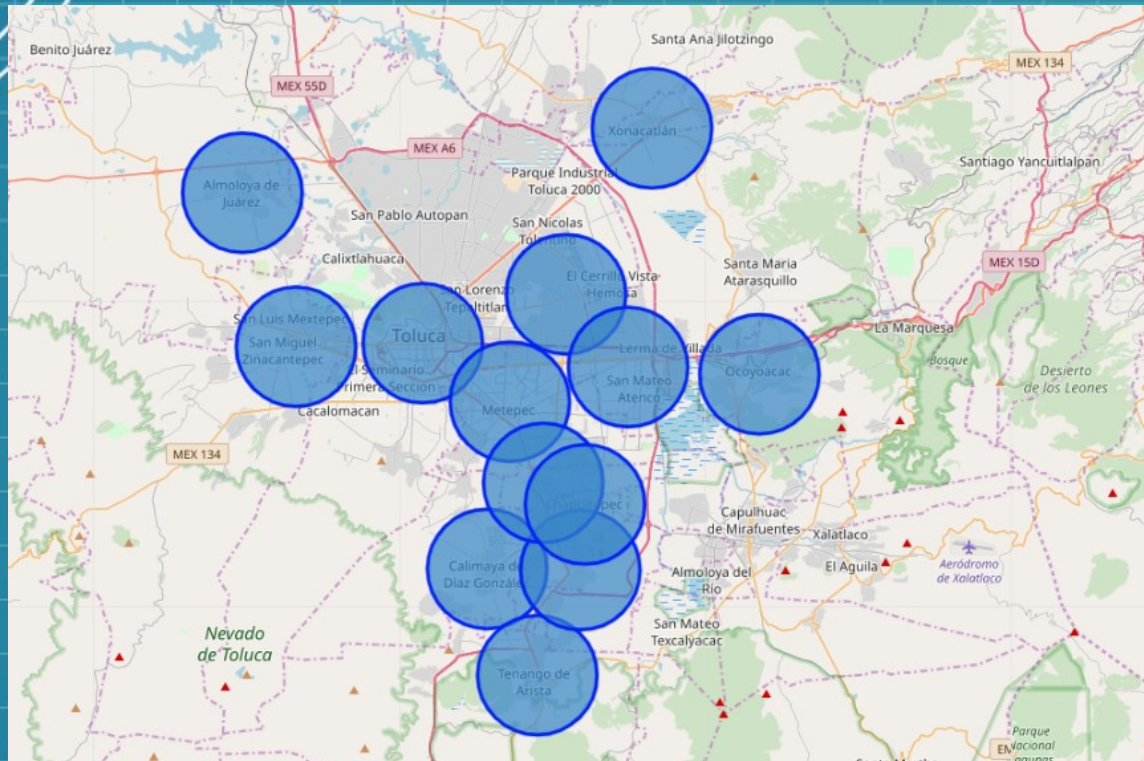




Opening a food business in the Toluca Valley

Auth. Edgar Sánchez

Toluca Valley



Código INEGI	Municipio	Población (2010) ^[2]
106	Toluca	489,333
054	Metepec	206,005
118	Zinacantepec	136,167
005	Almoloya de Juárez	147,653
051	Lerma de Villada	134,799
067	Villa Cuauhtémoc	78,146
076	San Mateo Atenco	72,579
062	Ocoyoacac	61,805
018	Calimaya	47,033
115	Xonacatlán	46,331
090	Tenango del Valle	21,765
073	San Antonio la Isla	22,152
072	Santa María Rayón	12,748
055	Mexicaltzingo	11,712
027	Chapultepec	9,676
	Total	1,846,116

Data Sources

Municipality	Population	Latitude	Longitude
Toluca	489333	19.288762	-99.655247
Metepec	206005	19.2564	-99.6048
Zinacantepec	136167	19.286518	-99.727837

Field	Description
Municipality	Municipality name
Municipality Latitude	Municipality Latitude Center
Municipality Longitude	Municipality Longitude Center
Venue	Name of the Venue
Venue Latitude	Venue Latitude
Venue Longitude	Venue Longitude
Venue Category	Foursquare Category



Methodology

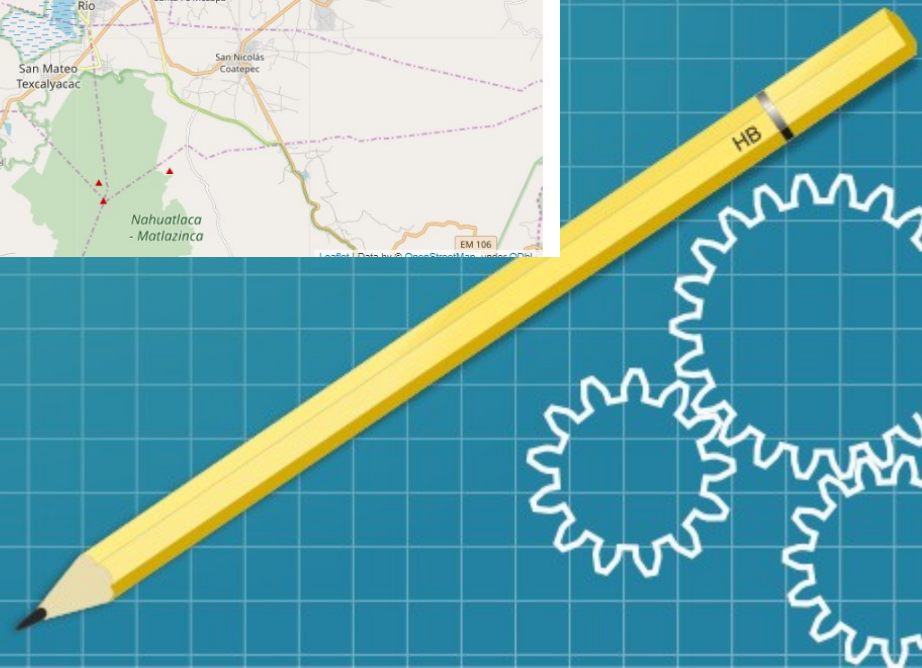
A segmentation algorithm (KNN) will be used to cluster the venues by Municipality and from then the clusters will be examined to decide in which municipality is best to open a certain kind of food business. Maybe further segmentation will be necessary but this is an initial exercise.

Model Evaluation

It will be used a test and train split process to obtain an ideal K number and accuracy evaluation metrics will be used:

Jaccard.

F1-score.





Municipality Clusters

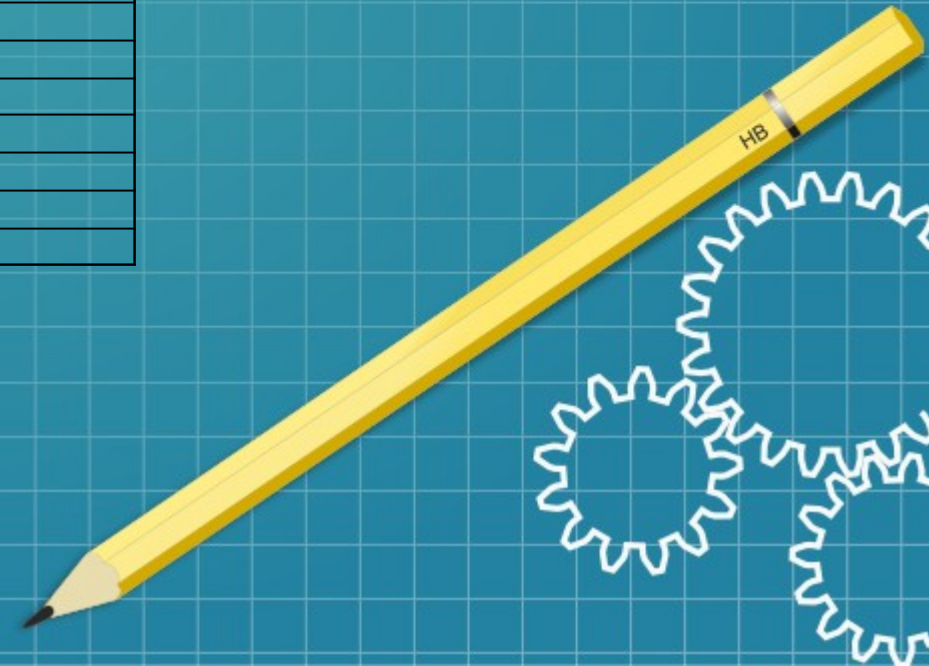
Municipality	Population	Cluster Labels
Toluca	489,333	Blue
Metepec	206,005	Blue
Zinacantepec	136,167	Red
Almoloya de Juárez	147,653	Blue
Lerma de Villada	134,799	Purple
San Mateo Atenco	72,579	Purple
Ocoyoacac	61,805	Red
Calimaya	47,033	Purple
Xonacatlán	46,331	Purple
Tenango del Valle	21,765	Blue
San Antonio la Isla	22,152	Green
Mexicaltzingo	11,712	Blue
Chapultepec	9,676	Orange



Conclusion

If you are going to open a Food Business in México, open a Tacos Place or a Mexican Restaurant, just make sure the meat is good.

Municipality	1st Most Common Venue
Almoloya de Juárez	Mexican Restaurant
Calimaya	Taco Place
Chapultepec	Food Stand
Lerma de Villada	Taco Place
Metepec	Mexican Restaurant
Mexicaltzingo	Breakfast Spot
Ocoyoacac	Mexican Restaurant
San Antonio la Isla	Pizza Place
San Mateo Atenco	Taco Place
Tenango del Valle	Convenience Store
Toluca	Mexican Restaurant
Xonacatlán	Taco Place
Zinacantepec	Taco Place



Thanks

