

# Battle of Neighborhoods

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IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

# Introduction

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People need to know where to live in a new city

Information about new neighborhood

What kind of venues are nearby

Comparison with the prior neighborhood

Case Study: Person who is moving from Tecnologico, Monterrey to Austin

Need to know the best suitable neighborhood In Austin, similar to Monterrey

# Data acquisition and cleaning

Monterrey Neighborhood data

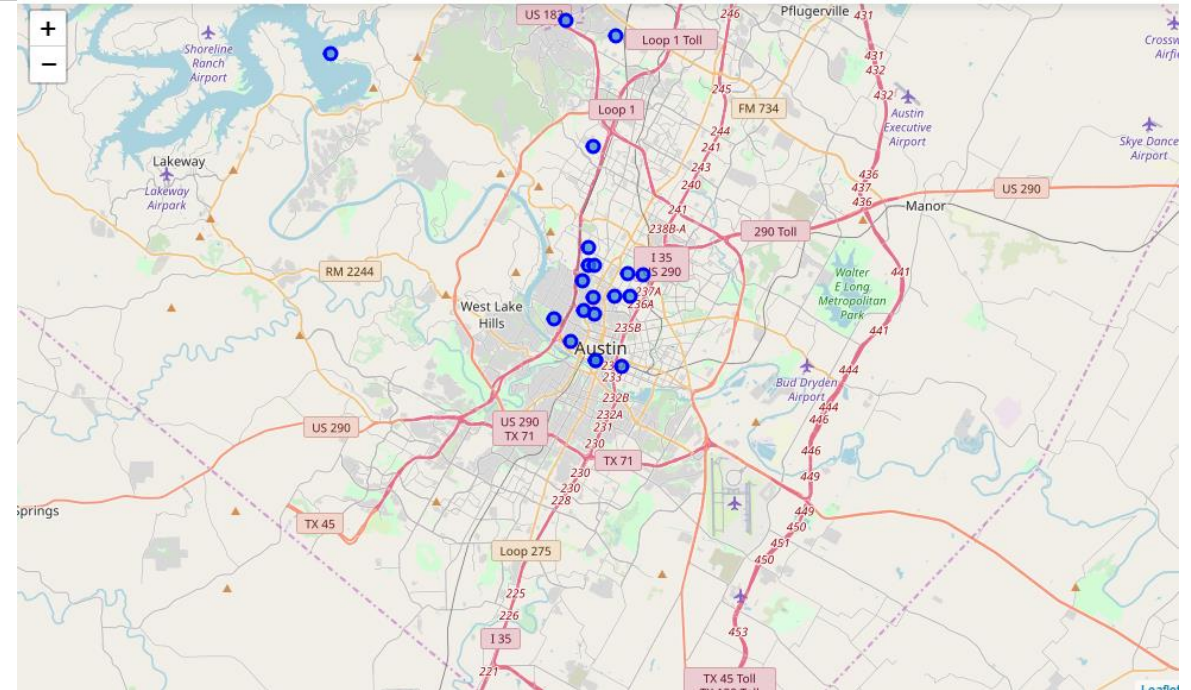
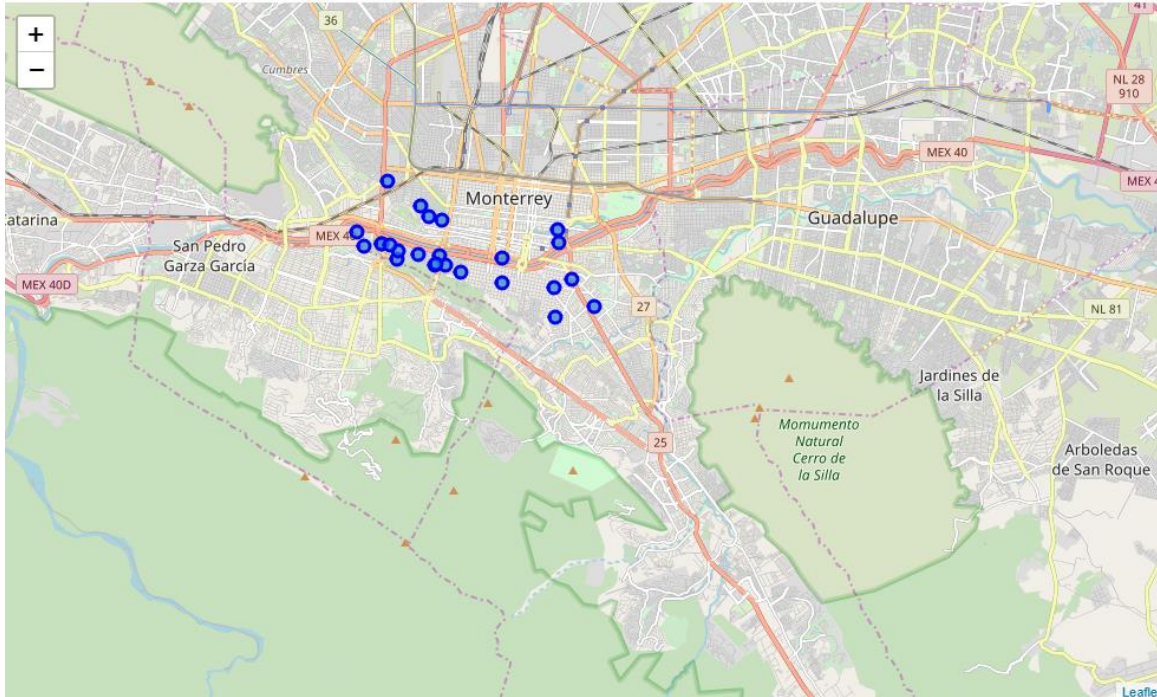
Austin Neighborhood data

Foursquare API to extract nearby venues

	Asentamiento ▼	Tipo de Asentamiento	Código Postal	Municipio	Ciudad	Zona	Mapa	Latitude	Longitude
0	Monterrey Centro	Colonia	64000	Monterrey	Monterrey	Urbana	Mapa	25.664332	-100.317274
1	Nuevo Centro de Monterrey	Equipamiento	64018	Monterrey	Monterrey	Urbana	Mapa	25.671916	-100.300973
2	Condominios Constitución	Unidad habitacional	64019	Monterrey	Monterrey	Urbana	Mapa	25.668419	-100.300588
3	Gonzalitos	Colonia	64020	Monterrey	Monterrey	Urbana	Mapa	25.684598	-100.350584
4	Deportivo Obisado	Colonia	64040	Monterrey	Monterrey	Urbana	Mapa	25.678081	-100.340836
5	María Luisa	Colonia	64040	Monterrey	Monterrey	Urbana	Mapa	25.675132	-100.338444
6	Obisado	Colonia	64060	Monterrey	Monterrey	Urbana	Mapa	25.674287	-100.334677
7	Barrio Antiguo	Colonia	64100	Monterrey	Monterrey	Urbana	Mapa	43.502635	-1.454455
8	Nuevo Repueblo	Colonia	64700	Monterrey	Monterrey	Urbana	Mapa	25.656749	-100.302061
9	Roma	Colonia	64700	Monterrey	Monterrey	Urbana	Mapa	25.658876	-100.296769

	Neighborhood	City	State	Latitude	Longitude
0	Bryker Woods	Austin	Texas	30.305007	-97.754204
1	Caswell Heights	Austin	Texas	30.307865	-97.719418
2	Downtown Austin	Austin	Texas	30.265270	-97.746470
3	Eastwoods	Austin	Texas	30.371418	-97.748008
4	Hancock	Austin	Texas	30.297150	-97.726620

# Generated Maps



# Venues nearby

## Common venues nearby Monterrey and Austin

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Neighborhood						
Ancira	3	3	3	3	3	3
Balcones del Carmen	3	3	3	3	3	3
Barrio Antiguo	5	5	5	5	5	5
Centro	2	2	2	2	2	2
Comercial Ampliación Doctores	12	12	12	12	12	12
Condominios Constitución	20	20	20	20	20	20
Del Carmen	14	14	14	14	14	14
Deportivo Obisado	11	11	11	11	11	11
El Maguey	7	7	7	7	7	7
Gonzalitos	34	34	34	34	34	34
Hacienda San Francisco	16	16	16	16	16	16
Independencia	9	9	9	9	9	9
Loma Larga	23	23	23	23	23	23
Lomas de San Francisco	20	20	20	20	20	20
Los Doctores	12	12	12	12	12	12
Los Magueyes	6	6	6	6	6	6
María Luisa	15	15	15	15	15	15
Monterrey Centro	58	58	58	58	58	58
Nuevas Colonias	6	6	6	6	6	6
Nuevo Centro de Monterrey	27	27	27	27	27	27
Nuevo Repueblo	13	13	13	13	13	13
Obisado	44	44	44	44	44	44
Pío X	7	7	7	7	7	7
Roma	24	24	24	24	24	24
Roma Sur	12	12	12	12	12	12
Sertoma	24	24	24	24	24	24
Tecnológico	100	100	100	100	100	100

	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Neighborhood						
Bryker Woods	23	23	23	23	23	23
Caswell Heights	31	31	31	31	31	31
Downtown Austin	100	100	100	100	100	100
Hancock	3	3	3	3	3	3
Heritage	5	5	5	5	5	5
Hyde Park	15	15	15	15	15	15
Lower Waller Creek	79	79	79	79	79	79
North University	4	4	4	4	4	4
Oakmont Heights	3	3	3	3	3	3
Old Enfield	4	4	4	4	4	4
Old Pecan Street	24	24	24	24	24	24
Old West Austin	43	43	43	43	43	43
Original Austin	2	2	2	2	2	2
Original West University	28	28	28	28	28	28
Pemberton Heights	6	6	6	6	6	6
Ridgelea	10	10	10	10	10	10
Ridgetop	2	2	2	2	2	2
Rosedale	4	4	4	4	4	4
Shoal Crest	10	10	10	10	10	10
West Downtown	100	100	100	100	100	100

# Top Venues by Neighborhood

## Top venues by neighborhoods in Monterrey and Austin

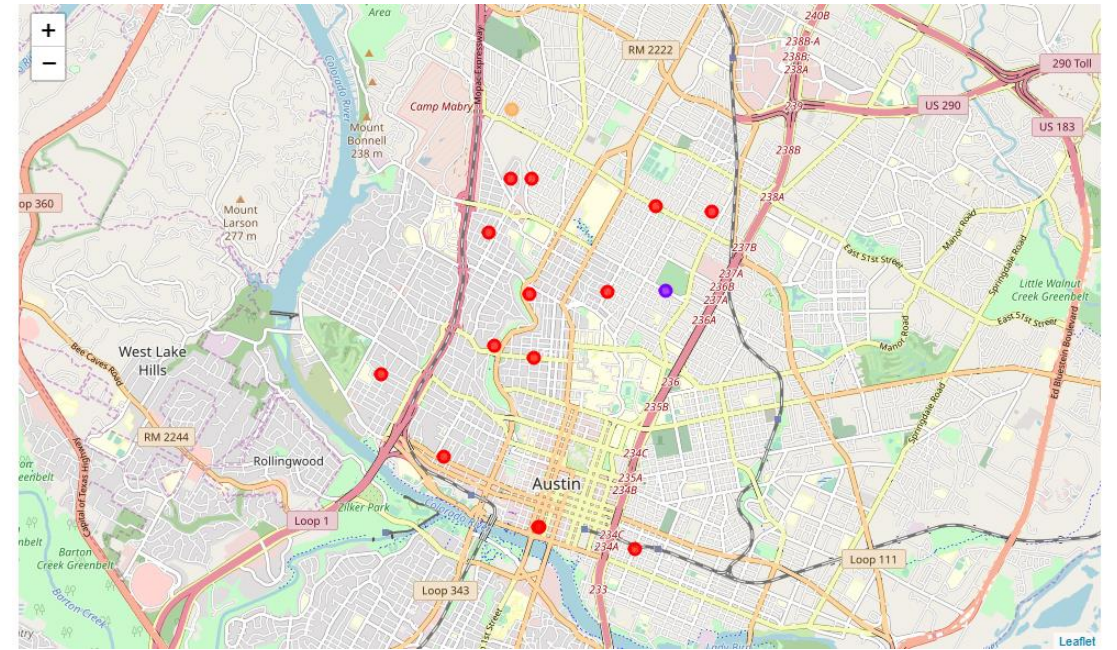
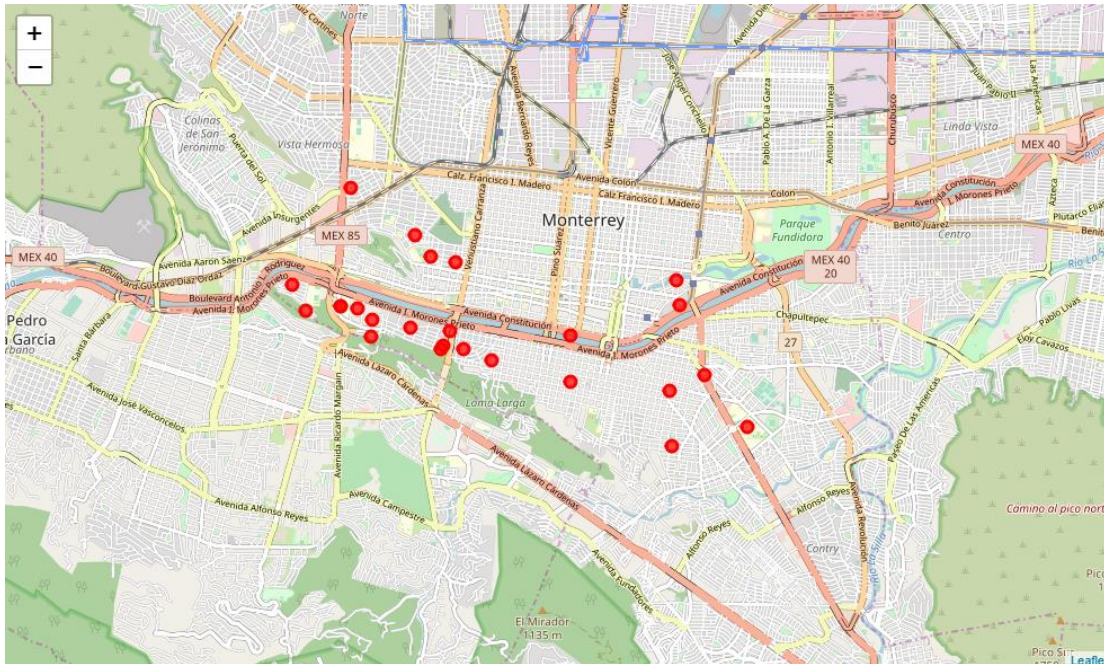
	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Ancira	Mexican Restaurant	Bed & Breakfast	Market	Yoga Studio	Drugstore	Construction & Landscaping	Convenience Store	Cosmetics Shop	Cuban Restaurant	Cupcake Shop
1	Balcones del Carmen	Pharmacy	Casino	Mexican Restaurant	Yoga Studio	College Quad	Concert Hall	Construction & Landscaping	Convenience Store	Cosmetics Shop	Cuban Restaurant
2	Barrio Antiguo	Yoga Studio	Supermarket	Water Park	Pharmacy	Hotel	Dessert Shop	Department Store	Deli / Bodega	Dance Studio	Cupcake Shop
3	Centro	Construction & Landscaping	Automotive Shop	Yoga Studio	Electronics Store	Concert Hall	Convenience Store	Cosmetics Shop	Cuban Restaurant	Cupcake Shop	Dance Studio
4	Comercial Ampliación Doctores	Mexican Restaurant	Pharmacy	Convenience Store	College Cafeteria	Café	Salad Place	Casino	Pizza Place	Diner	Cosmetics Shop

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Bryker Woods	Park	Italian Restaurant	Yoga Studio	Gift Shop	Pizza Place	Pharmacy	Music Store	Massage Studio	Garden Center	Rental Car Location
1	Caswell Heights	Bus Stop	Gym	Ice Cream Shop	Pet Store	Beer Store	Breakfast Spot	Pool Hall	Pool	Pizza Place	Comedy Club
2	Downtown Austin	Coffee Shop	Hotel	Restaurant	New American Restaurant	Italian Restaurant	Bar	Gay Bar	Music Venue	Clothing Store	Lounge
3	Hancock	Golf Course	Intersection	Park	Yoga Studio	Fast Food Restaurant	Farmers Market	Fabric Shop	Event Service	Donut Shop	Dog Run
4	Heritage	Construction & Landscaping	Bus Stop	Trail	Thrift / Vintage Store	Dog Run	Dive Bar	Fast Food Restaurant	Farmers Market	Fabric Shop	Event Service



# Clustering

Generated maps after clustering, for Monterrey and Austin



# Conclusions

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Tecnologico, Monterrey and Lower Waller Creek shares most of the popular venues, both are located in cluster 1

From all the other neighborhoods, the Lower Waller Creek have most coincidences

Recommendation: Check Lower Waller Creek for a place.

11	Tecnológico	Urbana	Mapa	25.651713	-100.290310	0	Mexican Restaurant	Taco Place	Italian Restaurant	Coffee Shop	Restaurant	Bakery	
8	Lower Waller Creek	0	Food Truck				Mexican Restaurant	Dive Bar	Pizza Place	Ice Cream Shop	Taco Place	Cocktail Bar	Lounge



# Thanks!

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