

# Food Chains in Germany

An overview with data

# Introduction

Question: Which German Cities have Which Restaurants?

# Top Cities and 4 Restaurants

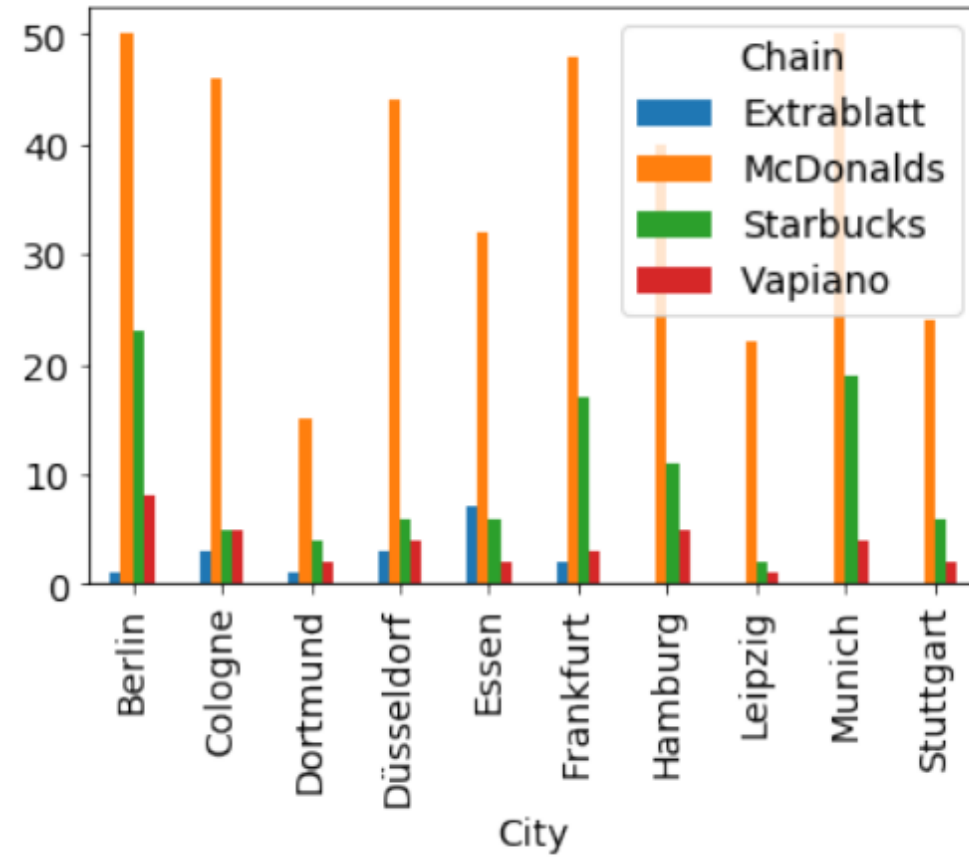
2015 rank ↕	City ↕	State ↕	2015 Estimate ↕
1	 <i>Berlin</i>	 Berlin	3,520,031
2	 <i>Hamburg</i>	 Hamburg	1,787,408
3	 <i>Munich</i> (München)	 Bavaria	1,450,381
4	 <i>Cologne</i> (Köln)	 North Rhine- Westphalia	1,060,582
5	 <i>Frankfurt am Main</i>	 Hesse	732,688
6	 <i>Stuttgart</i>	 Baden- Württemberg	623,738
7	 <i>Düsseldorf</i>	 North Rhine- Westphalia	612,178
8	 Dortmund	 North Rhine- Westphalia	586,181
9	 Essen	 North Rhine- Westphalia	582,624
10	 <i>Leipzig</i>	 Saxony	560,472



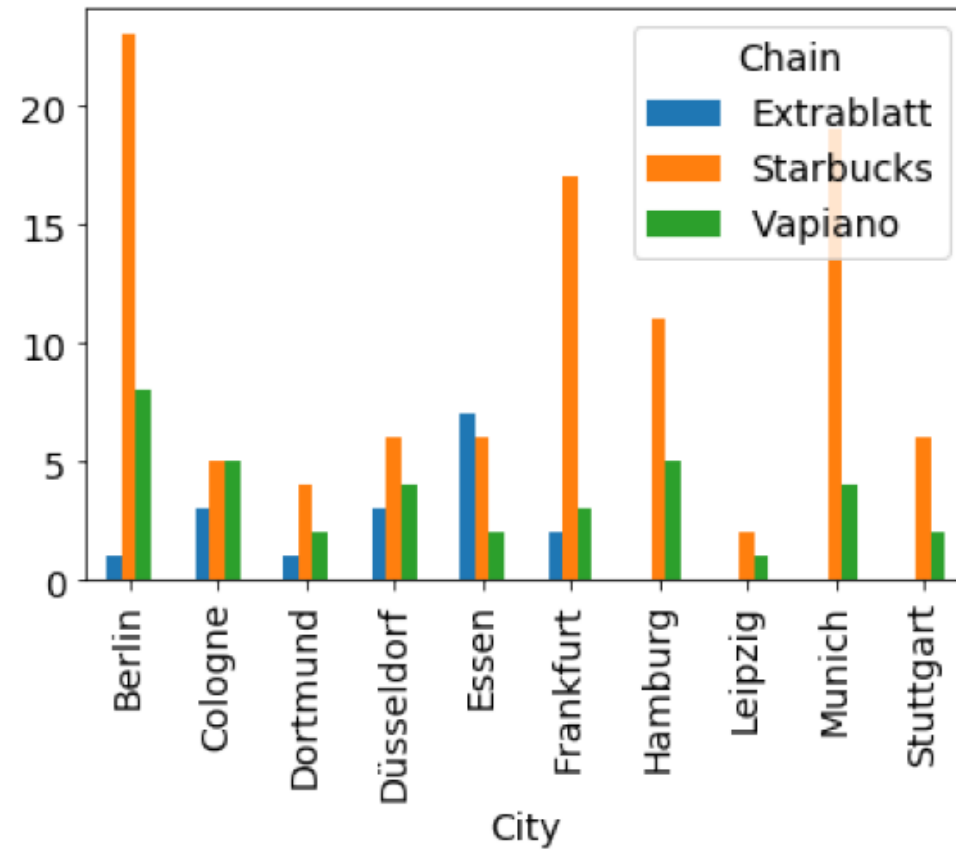
# Gathering Data

- The data is gathered from Foursquare's Places API. Only the main cities will be taken into consideration, and the numbers will be taken from the results coming from the API.
- Data is gathered with the following API:
- GET <https://api.foursquare.com/v2/venues/search>
- With the following Parameters:
- search\_query = Will change according to the food chain considered
- near = Will change for the city
- radius = will be constant, 10000
- intent= 'browse'

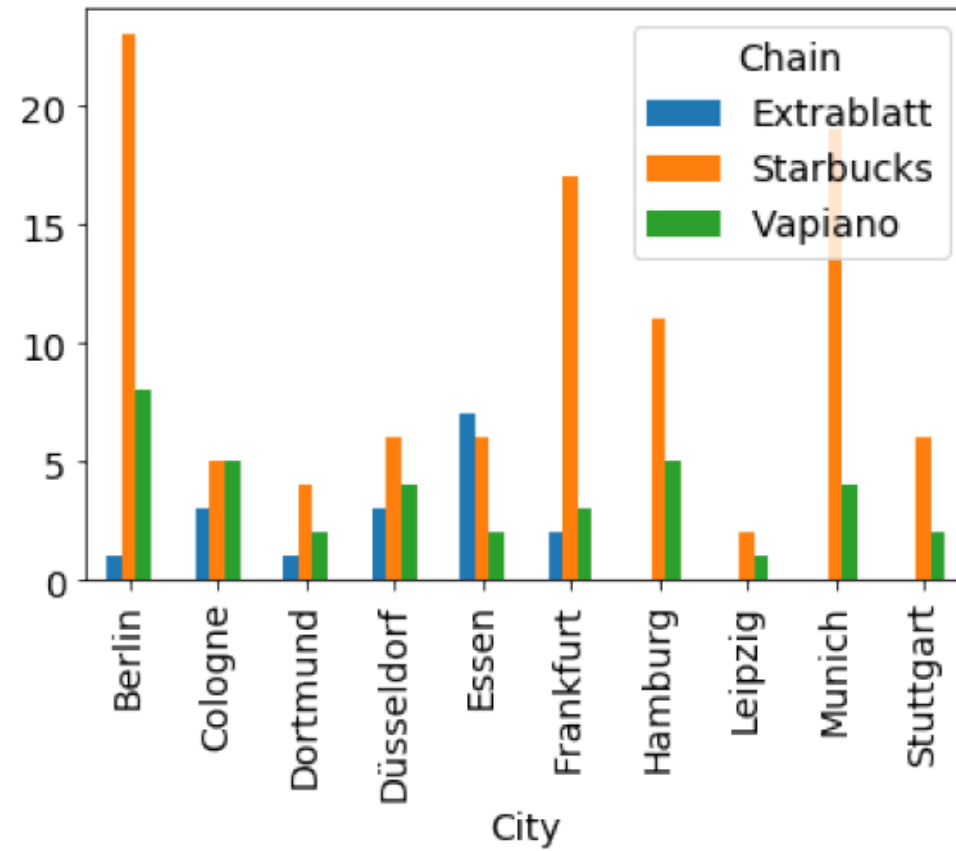
# Results



# Results (cont'd)



# Results (cont'd)



# Results

Vapiano vs Starbucks

City	
Frankfurt	0.176471
Munich	0.210526
Essen	0.333333
Stuttgart	0.333333
Berlin	0.347826
Hamburg	0.454545
Dortmund	0.5
Leipzig	0.5
Düsseldorf	0.666667
Cologne	1

McDonalds vs Starbucks

City	
Berlin	2.17391
Munich	2.63158
Frankfurt	2.82353
Hamburg	3.63636
Dortmund	3.75
Stuttgart	4
Essen	5.33333
Düsseldorf	7.33333
Cologne	9.2
Leipzig	11

McDonalds vs Vapiano

City	
Berlin	6.25
Dortmund	7.5
Hamburg	8
Cologne	9.2
Düsseldorf	11
Stuttgart	12
Munich	12.5
Essen	16
Frankfurt	16
Leipzig	22



# Results

## Correlation Index

Chain	Chain	Extrablatt	McDonalds	Starbucks	Vapiano
Chain	Extrablatt	1	0.094452	-0.223665	-0.102062
McDonalds	0.094452	1	0.732479	0.74311	
Starbucks	-0.223665	0.732479	1	0.687165	
Vapiano	-0.102062	0.74311	0.687165	1	

# Discussion

- Highly Homogeneous Market except Extrablatt
- Startbucks and McDonalds well penetrated
- Vapiano is still developing

# Conclusion

- A lot of different data can be investigated when a new restaurant is going to be opened. Regarding Germany, the homogeneity of the country and well establishment of global chains should be taken into consideration.