

CapstoneProject\_TheBattleofNeighborhoods\_TomasBvoc

COURSERA – IBM Data Science Professional Certificate

## **Capstone Project**

**The Battle of Neighborhoods**

**Location recommendation for a new coffee place in Bratislava**

***Tomas Bvoc***

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## 1. Introduction

I can see on my own eyes, that Bratislava, as my hometown, has been developing rapidly in recent years and becoming a cosmopolitan city. There is a special area close to Danube river, so-called Modern downtown, and I live close to it. Well, let's consider I wish to open a café & coffee shop in this developing borough. Second crucial attribute, as a prerequisite, is to find a place not far away from my own apartment (Mileticova 27). I consider as very important to be able to handle to reach it by walk or bicycle easily - it will help me to spare time and to reduce my cost slightly.

Now, the third attribute needed to find out the correct location where to start a ne coffee business. Not too close of existing cafés, not too far from the heart of the freshly growing area.

The screenshot displays the Foursquare app interface for searching coffee shops in Bratislava. The top navigation bar is blue with the Foursquare logo, a search bar containing 'coffee', and a 'Current Map View' button. Below the search bar, there are filter tabs: 'Specialty', 'Haven't Been', 'Following', 'Price', 'Open Now', 'Saved', and 'Liked'. A section titled 'Just show me:' features five coffee-related icons. The main content area lists four coffee shop suggestions, each with a photo, name, rating, address, and a 'Save' button. To the right of the list is a map of Bratislava with blue location pins numbered 1 through 30, corresponding to the suggestions. The Danube River is visible at the bottom of the map.

**FOURSQUARE** CITY WISE coffee Current Map View

Suggestions for coffee near Bratislava

Filters: Specialty Haven't Been Following Price Open Now Saved Liked

Just show me:

- Tea
- Coffee & Tea
- Coffee Outdoors
- Cold Coffees & Teas
- Coffee & Tea

**1. black.** 9.1  
Coffee Shop • €€€  
Gorkého 15 (15), Bratislava  
Save  
Kate Z. • March 1  
great place for coffee lover (filter, cold brew, matcha)

**2. MAD DROP** 9.1  
Coffee Shop • €€€  
Radlinského 24, Bratislava  
Save  
★ Over 15 tips talk about the specialty coffees, cake, and gardens

**3. Pán Kráľíček Priestor** 9.0  
Café • €€€ • View Menu  
Budovateľská 2, Bratislava  
Save  
Vladimir E. • June 25, 2017  
Great coffee and delicious cakes

**4. Goriffee Kaffeehaus** 9.0  
Coffee Shop • €€€  
Panenská 33, Bratislava  
Save  
Lovro R. • February 29  
Great espresso, simple and lovely interior.

## 2. Data

To explore the neighborhoods and coffee places in Bratislava city, I will need a list of Coffee places in Bratislava. I'm about to use Foursquare API <https://foursquare.com/>. With this data source I'm able to identify existing coffee places around the specified point (my living place).

Data will be inserted into single dataframe with main characteristics : Name of the coffee place; Geographical data – coordinates (Latitude and Longitude) and Address. Some additional data are collected, but let us consider they are not important for the analysis.

Pre-processing of data will be needed – cleaning, setting radius.

	name	categories	address	lat	lng	labeledLatLngs	distance	postalCode	cc	city	state	country	formattedAddress	crossStreet
0	MEM'S Coffee	Café	Košická 42	48.150238	17.134992	[[{"label": "display", "lat": 48.15023810495661, "lng": 17.134992}]]	334	821 08	SK	Bratislava	Bratislavský kraj	Slovensko	[Košická 42, 821 08 Bratislava, Slovensko]	NaN
1	Urban Coffee	Café	Plynárenská 1	48.146523	17.143003	[[{"label": "display", "lat": 48.146523, "lng": 17.143003}]]	570	821 08	SK	Bratislava	Bratislavský kraj	Slovensko	[Plynárenská 1 (Prievozská), 821 08 Bratislava, Slovensko]	Prievozská
2	Steam & Coffee	Breakfast Spot	Vajnorská 98/H	48.166435	17.137888	[[{"label": "display", "lat": 48.16643474186929, "lng": 17.137888}]]	1718	831 04	SK	Bratislava	Bratislavský kraj	Slovensko	[Vajnorská 98/H, 831 04 Bratislava, Slovensko]	NaN
3	Coffee Break	Café	Záhradnícka 61	48.154097	17.129072	[[{"label": "display", "lat": 48.15409734913596, "lng": 17.129072}]]	835	821 08	SK	Bratislava	Bratislavský kraj	Slovensko	[Záhradnícka 61, 821 08 Bratislava, Slovensko]	NaN
4	Coffee	Café	NaN	48.141931	17.128729	[[{"label": "display", "lat": 48.141931, "lng": 17.128729}]]	1282	811 09	SK	Bratislava	Bratislavský kraj	Slovensko	[811 09 Bratislava, Slovensko]	NaN
5	Timi Amo Gelato&Coffee	Cafeteria	Rumancekova 855/1	48.150253	17.156305	[[{"label": "display", "lat": 48.150253, "lng": 17.156305}]]	1262	821 01	SK	Bratislava	Bratislavský kraj	Slovensko	[Rumancekova 855/1, 821 01 Bratislava, Slovensko]	NaN
6	Coffee Brothers	Coffee Shop	Metodová	48.156748	17.130393	[[{"label": "display", "lat": 48.1567484257976, "lng": 17.130393}]]	920	NaN	SK	Bratislava	Bratislavský kraj	Slovensko	[Metodová (Jelačičova), Bratislava, Slovensko]	Jelačičova