

Opening an Italian restaurant

Coursera Capstone Project

Business problem

Find out the best location in Ljubljana to open a new restaurant

Main objectives:

- type of restaurant
- district of a new restaurant

Data

Parameters that have an impact on the decision:

- list of districts in Ljubljana
- number of the most numerous tourists in Ljubljana
- location of the most important sights in Ljubljana
- number of restaurants which offer dishes from the country as the most numerous tourists are coming
- list of chosen type of restaurants situated in the city district

Methodology

- web scraping to get the data of Ljubljana districts
- Nominatim-OpenStreetMap API helped me to get latitudes and longitudes of the districts
- Nominatim geolocator to get Ljubljana coordinates
- Foursquare API to find all Italian restaurant in Ljubljana
- K-means clustering algorithm to find out centroid of Ljubljana sights and Italian restaurants in district “Center”
- Folium library to visualize all findings

Tourists in Ljubljana

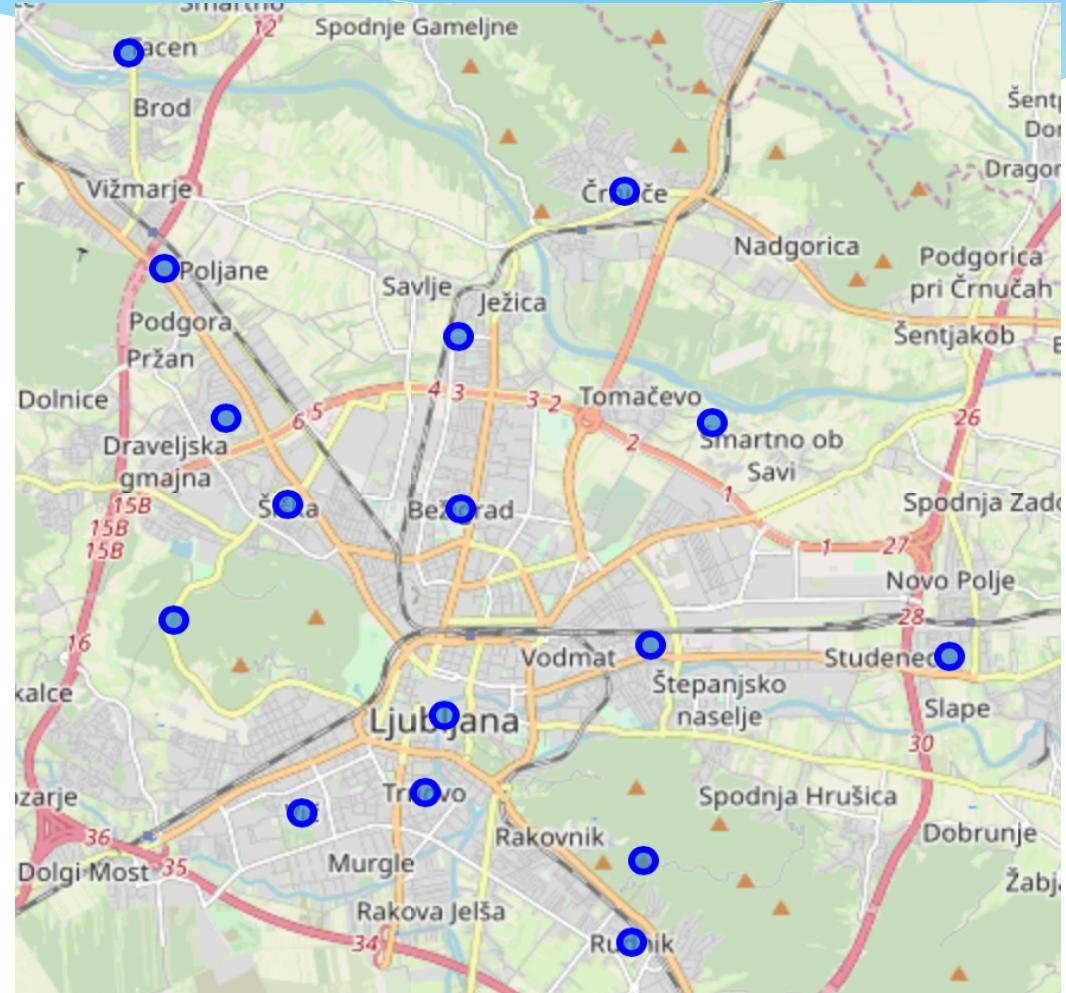
Tourist arrivals & overnights - TOP 8 countries (2008-2017)

Country	Arrivals	Overnights
Italy	615752	1016681
Germany	393852	715091
United Kingdom	293308	623496
United States	248841	538523
Slovenia	272515	445841
France	230181	433961
Austria	233303	369222
Spain	180749	354484

Italians are the most numerous tourists in Ljubljana

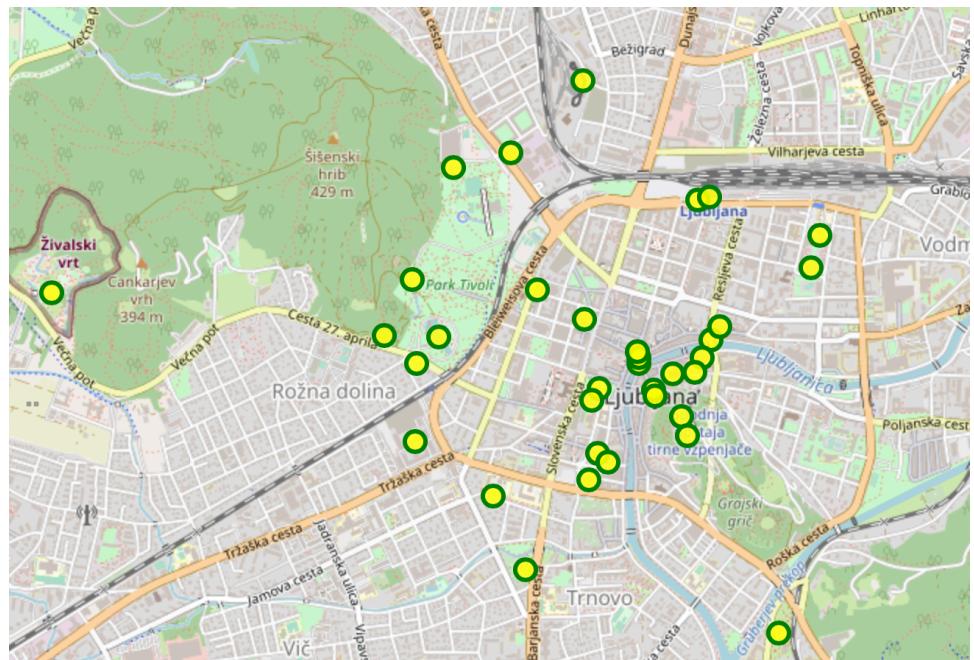
Districts in Ljubljana

Districts	Latitude	Longitude
Bežigrad	46,071523	14,509137
Center	46,049815	14,506782
Črnuče	46,105006	14,532862
Dravlje	46,08114	14,475201
Golovec	46,034705	14,535686
Jarše	46,080596	14,5456
Moste	46,057282	14,536756
Polje	46,056122	14,580008
Posavje	46,089738	14,508915
Rožnik	46,05999	14,46779
Rudnik	46,025988	14,533932
Sostro	46,035488	14,607094
Šentvid	46,096834	14,466245
Šiška	46,071956	14,484203
Šmarna gora	46,119496	14,4611
Trnovo	46,041719	14,503884
Vič	46,039693	14,486204



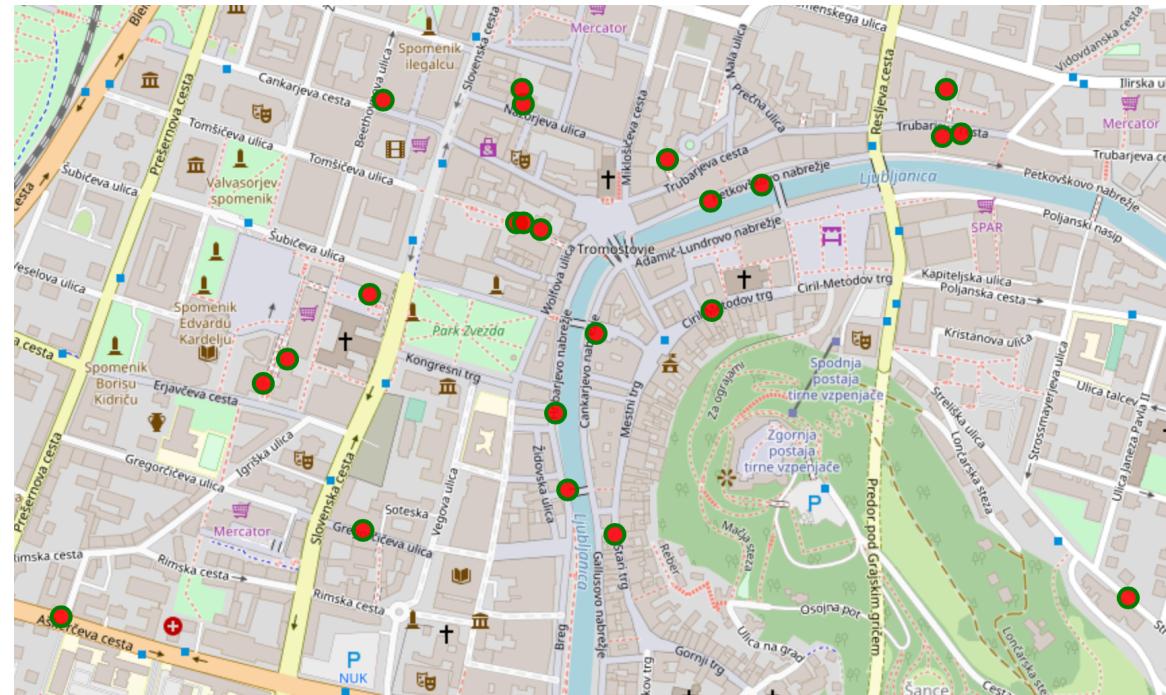
Sights in Ljubljana

Ljubljana Castle	National Museum of Contemporary History
Triple Bridge	Congress Square
Tivoli City park	The Skyscraper (Neboticnik)
Dragon Bridge	Botanic Garden
Presern monument	Brewery Museum
Robba Fountain	Tivoli Castle
Krizanke	Vodnik Square
Metelkova	Slovenian Railway Museum
Ljubljana Central Market	Slovenian Ethnographic Museum
National and University Library	The House of experiments
Town Hall	Museum of Illusions
Plecnik House	Muro Romano
Zoo	Monument The Fish
Cathedral	Bus Station & Railway Station
Franciscan Church of the Annunciation	Slovene Geographical Museum
National Gallery	Tobacco Museum
National Museum of Slovenia	Castle hill and Plecnik Sance



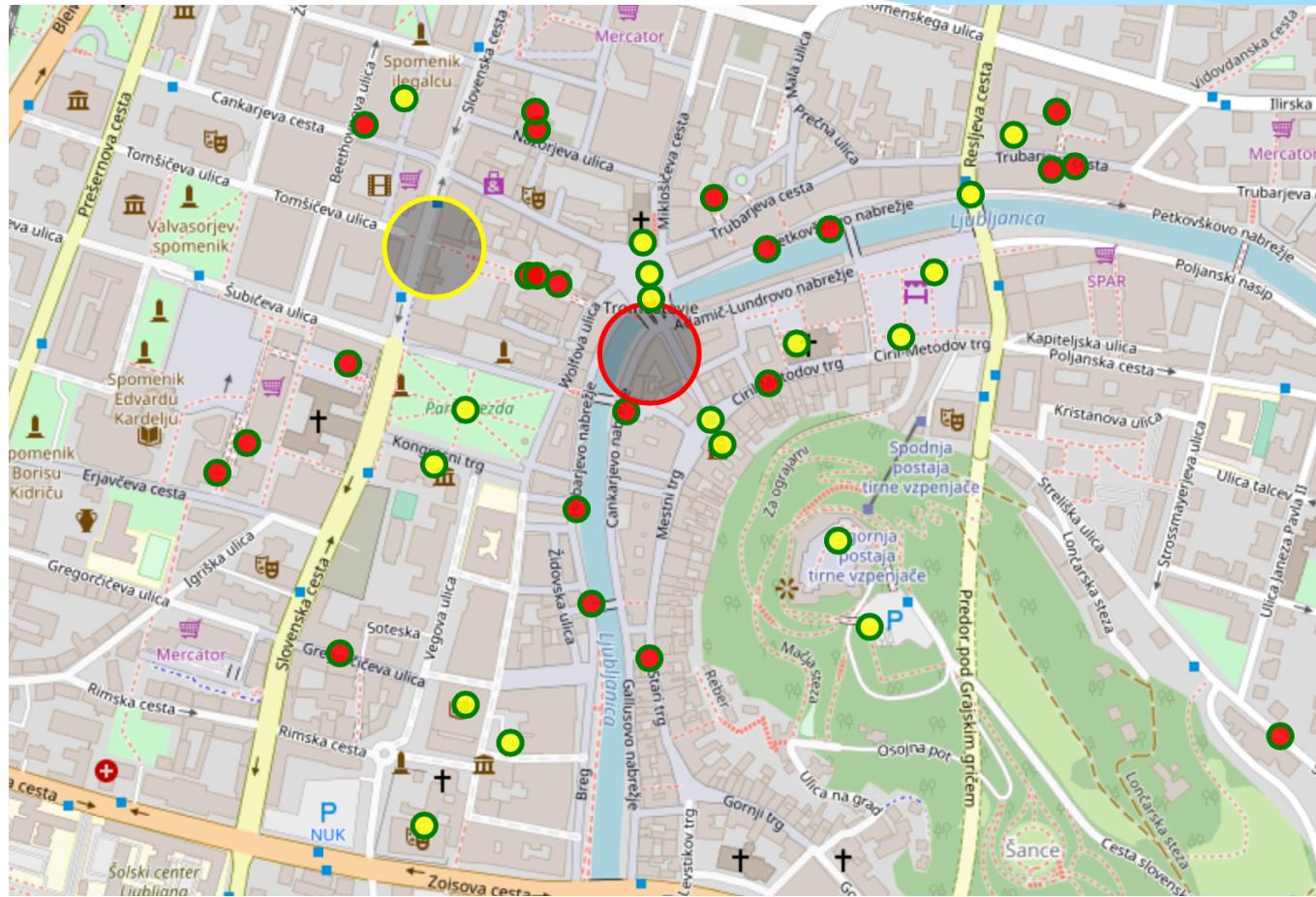
Italian restaurants in district “Center”

District	Italian restaurants
Bežigrad	6
Center	32
Dravlje	4
Golovec	1
Jarše	1
Moste	4
Polje	1
Posavje	4
Rudnik	2
Trnovo	1
Vič	5
Črnuče	3
Šiška	2
Šmarca gora	1



Results

Centroids of Ljubljana sights and Italian restaurants in district “Center”



Conclusion

Foursquare API realize to determine main objectives:

- the type of the restaurant
- classification of city district

With the correlation between two centroids (sights and Italian restaurants) which are located in the same district, indicates that district “Center” is the best district to open new Italian restaurant.