

# Analysis of top-5 Volga Federal District cities in Russian Federation using Foursquare API

## Marat S. Mukhametzhanov

January 2021

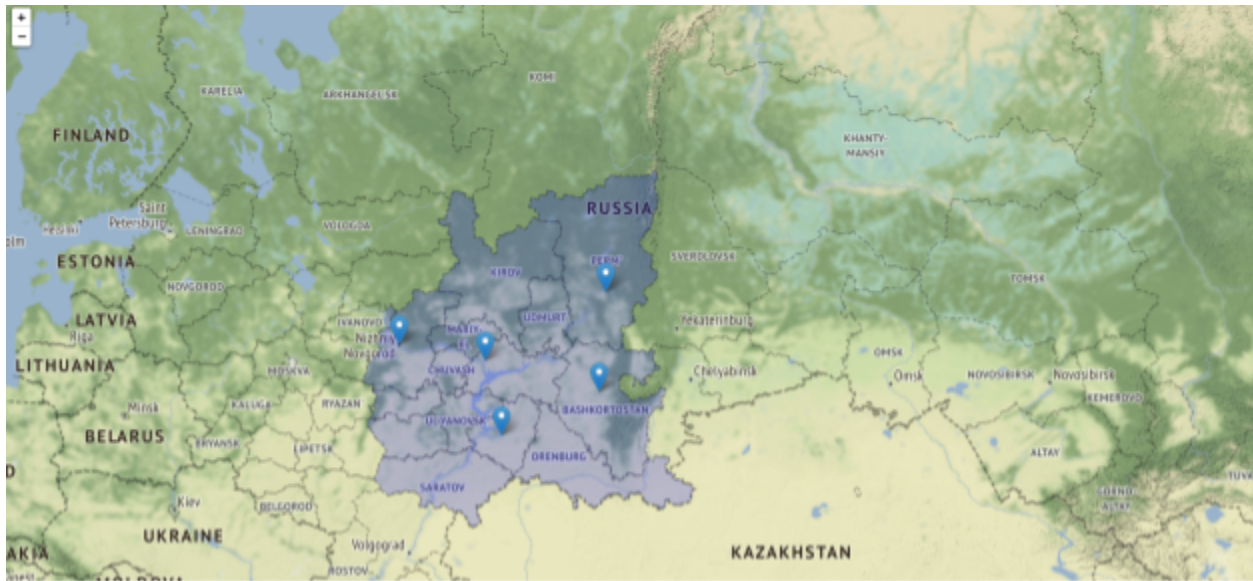
## 1 Introduction

### 1.1 Background

Russian Federation consists of the following 8 large federal districts:

Federal district	Area (km2)	Population(2010 census)	Population density(per km2)	HDI(2017)	Federal subjects	Administrative Centre
Central	650200	38438600	59.1	0.838	18	Moscow
Volga	1037000	29900400	28.8	0.797	14	Nizhny Novgorod
Siberian	4361800	17178298	3.9	0.788	10	Novosibirsk
Southern	427800	16141100	37.7	0.793	8	Rostov-on-Don
Northwestern	1687000	13583800	8.1	0.827	11	Saint Petersburg
Ural	1818500	12082700	6.6	0.833	6	Yekaterinburg
North Caucasian	170400	9496800	55.7	0.785	7	Pyatigorsk
Far Eastern	6952600	8371257	1.2	0.801	11	Vladivostok

The Volga Federal District is one of the biggest districts in Russia consisting of 14 federal subjects with almost 30 million people in total. It is mainly placed along Volga, being the longest river in Europe. It has 5 cities with a population over 1 million: Nizhny Novgorod (rus. Нижний Новгород, the administrative centre of the district, population ~1.252 million people), Kazan (rus. Казань, population ~1.257 million people), Ufa (rus. Уфа, population ~1.128 million people), Samara (rus. Самара, population ~1.156 million people), Perm (rus. Пермь, population ~1.055 million people):



Volga Federal District and its top-5 cities (indicated by markers)

## 1.2 Business Problem

A series of restaurants in Nizhny Novgorod has become successful, so its stakeholders are interested to extend their business into other cities. However, Russian Federation is a country with large distances between different cities and each region has its own cultural, economic and even natural or weather specifics. So, the stakeholders first consider opening a restaurant in a city of the same district. It is reasonable to consider only cities similar to Nizhny Novgorod, where their business has already become successful. One can see that there are 4 cities similar to Nizhny Novgorod in Volga federal district: Kazan, Ufa, Samara, and Perm. These cities are administrative centres of their regions and each of them has more than one million residents.

The main problem considered in this study can be briefly described as follows.

1. Find the city of the Volga Federal District closest to Nizhny Novgorod in terms of public venues availability and their categories.
2. In the chosen city, find the best places, where it is reasonable to open a restaurant based on known locations of the restaurants in the original city (Nizhny Novgorod).

---

### **1.3 Interest**

Since Nizhny Novgorod is a big, grown and economically developed city, then the present study can be interesting to different businessmen who consider extending their business to other cities. In particular, there are several series of food restaurants, sushi bars, pizzerias, bars, etc. (they are not listed here only for privacy reasons). Moreover, the methodologies presented in this study are easily extendable to other regions and districts not only in Russia, but in other countries as well (e.g., in Europe, USA or Canada). In this case, only the Data section of the Jupyter notebook related to this study will differ.