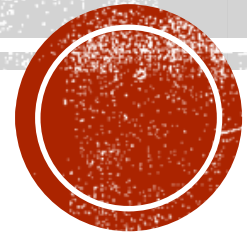# PREDICTING THE SUCCESS OF CERTAIN TYPE OF FOOD ESTABLISHMENT IN RUSSIA

Applied Data Science Capstone

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RECOMMENDATION MODEL RELEVANCE

- Russia is a multinational country with more than 190 nations;

- there is a great number of cuisines that are preferred in certain regions;

- too many factors to predict a hundred percent success;

- model allows to give an impression of what type of food establishments should be considered for opening.
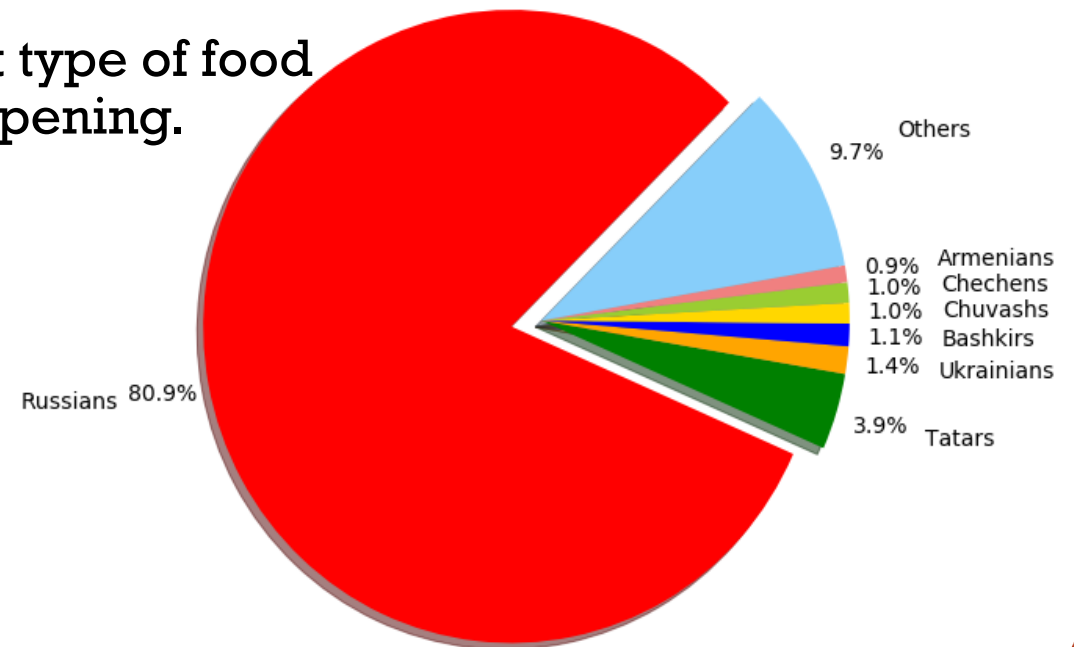
Figure 1. Ratio of main nationalities in Russia.

DATA ACQUISITION AND CLEANING

- Most data was taken from wiki page https://en.wikipedia.org/wiki/List_of_cities_and_towns_in_Russia_by_population;

- location – from geolocator;

- additional dataset (sometimes geolocator can't find any information about some cities), https://simplemaps.com/data/ru-cities;

- dropped Federal subject names, Federal district names, Population in 2010 and change in it between 2010 and 2017;

- using only 300 first cities by population (the interest of investors is directly proportional to the population of the city).

METHODOLOGY

- Main idea – to find out which type of food establishment is the most popular in every city of Russia;

- using: geopy, Foursquare API, pandas, numpy, folium, matplotlib;

- no ML, only a using of data.

MOST POPULAR TYPE – CAFÉ

- Most popular type – café;

- there is a lot of fast food, bistro, breakfast spots;

- not so many restaurants (mostly in big cities, like Moscow and Saint-Petersburg).

Figure 2. The result map with colored types of food establishments.

RECOMMENDATION HELPER

- In the end of the project there is a little piece of code which recommend what type of food establishment you should open in certain city or in what city you should open certain type.

```
What can I reccomend you, my friend? (type/city)
type
OK! What type do you want to observe? (type in a type of food establishment)
bakery
Nice choice! I reccomend you to open it in Saint Petersburg or in Kaliningrad or in Vsevolozhsk.
```

Figure 3. Result of helper work.

Conclusion and Future Directions

- This project allows us to give an impression of what type of food establishments should be considered for opening;

- should not be determined one hundred percent and serves only as a demonstration and a hint for which type is worth a closer look;

- there are dozens of other factors that deserve additional research in other projects.

THANK YOU FOR YOUR ATTENTION!