

# The best places for placing a supermarket.

**Applied Data Science Capstone by IBM/Coursera**  
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# Introduction

- Supermarket chain
- An analysis to find the best places to place supermarkets
- Crowded places in residential areas without supermarket competitors in the areas

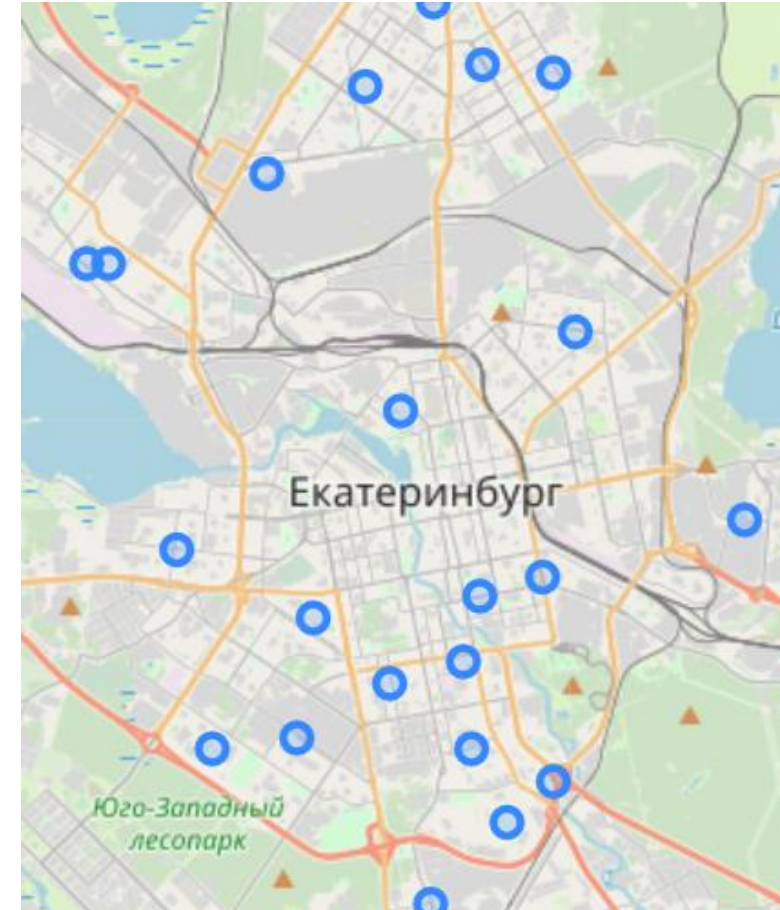
# Districts of Yekaterinburg

- Too big for analysis
- Neighborhoods by post offices



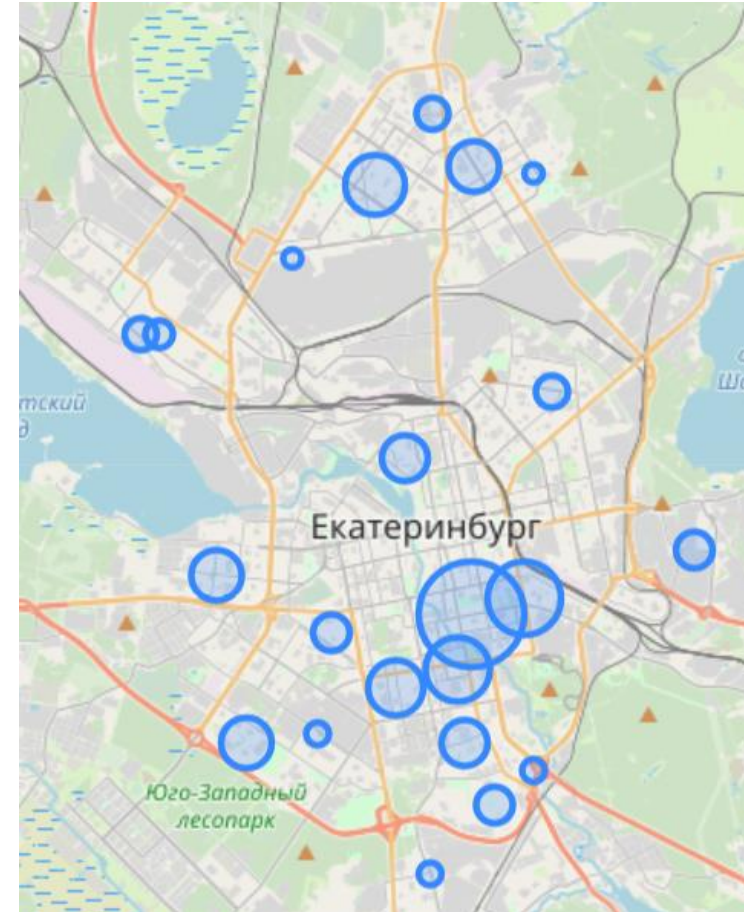
# Post offices

- Post offices are evenly distributed throughout the city
- Venues in a radius of 800 meters



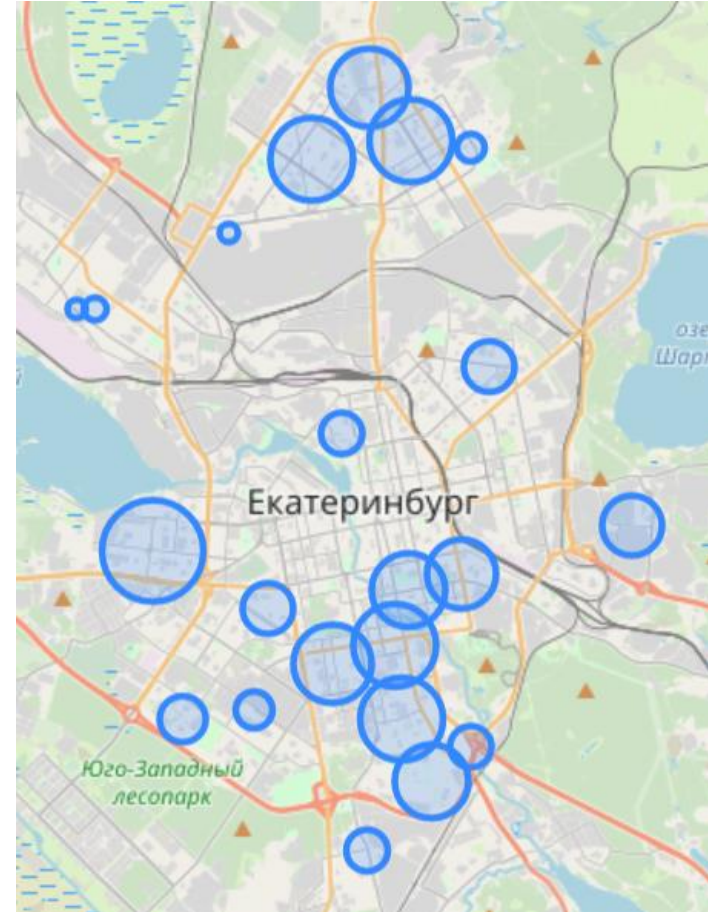
# Social venues

- Residential areas can be distinguished by the presence of schools, kindergartens, and hospitals in the district (social venues).
- The largest number of venues:
  - 620000 – 23 venues
  - 620100 – 16 venues
  - 620142 – 14 venues



# Competitor venues

- Supermarkets, food and drink shops, etc.
- The largest number of venues:
  - 620131 – 22 venues
  - 620130 – 18 venues
  - 620142 – 18 venues





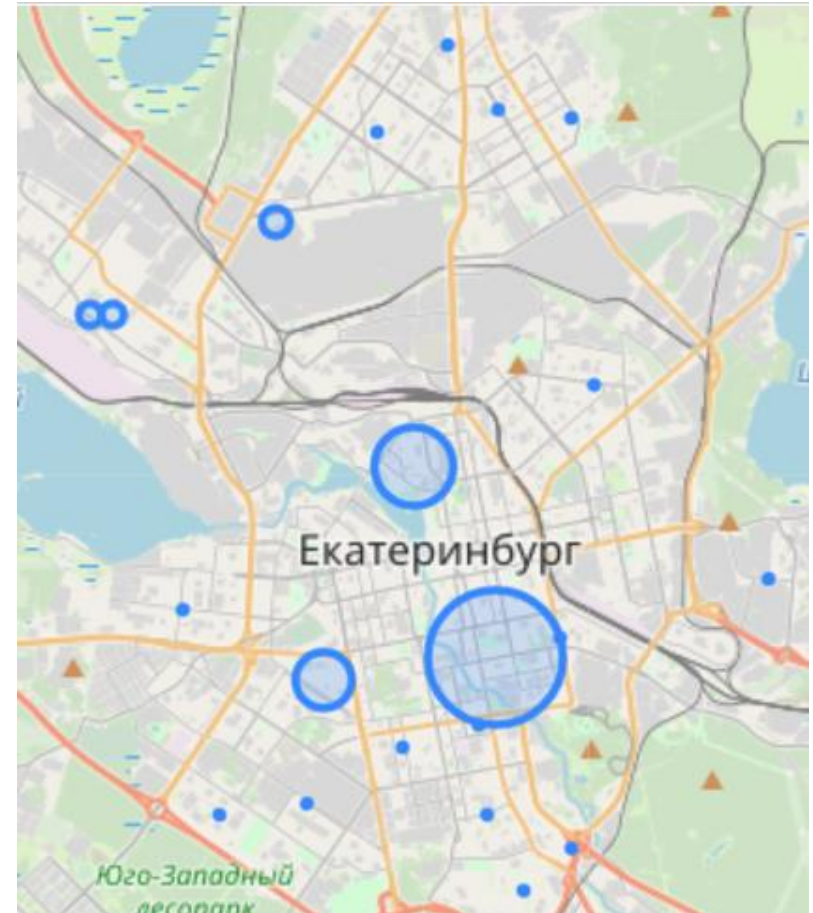
# Crowded venues

- Business centers, entertainment centers, etc.
- The largest number of venues:
  - 620000 – 33 venues
  - 620102 – 24 venues
  - 620027 – 22 venues



# Ranking result

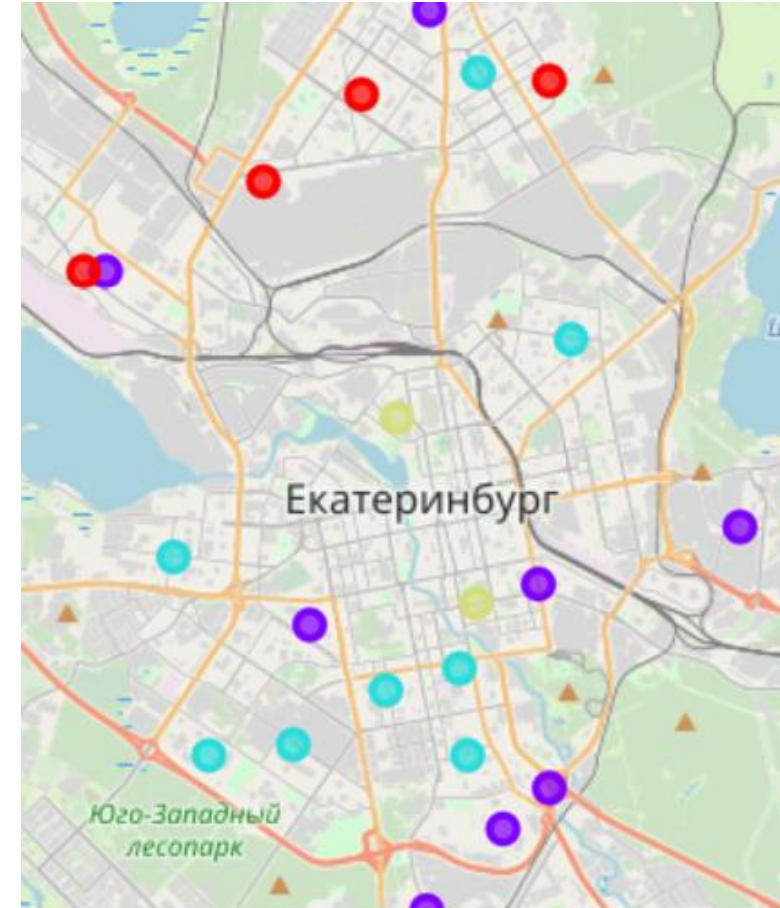
- The best graded neighborhoods
  - 620000 – 24
  - 620027 – 14
  - 620102 - 10





# Clusterisation result

- The best results by the ranking are highlighted by DBSCAN as outliers
- Outliers:
  - 620000
  - 620027



# Result

- 620102 and 620012 areas have not such a good grade as 620000 and 620000, so let's exclude these areas. So the best places for placing a supermarket are around these post offices:

Address	Postal code	Latitude	Longitude
ул. Мельковская, 2Б	620027	56.850024	60.602210
ул. Декабристов, 16/18Б	620000	56.824462	60.621938