Coursera Capstone

Battle of Neighborhoods

Possible locations for a Gym in Copenhagen

Ovidiu Garvasuc

04.05.2020

Business Case

A new fitness chain would like to expand in Denmark. Opening the first Gym is going to give the stakeholder an idea on how profitable is their business model and how it will be received might dictate future plans for expansion on the Danish Market.

The customer would like to open the Gym in the center of Copenhagen but an analysis is needed to understand where would be the best position considering the location of the other gyms.

Data Analysis should be used to find the best location considering a few criteria:

- Proximity to high traffic areas
- A certain distance to existing fitness centers.
- A location with lower density of Gym facilities.

Data Source

The main Data Source will be Foursquare API for identifying existing gyms and mapping them over the Central Copenhagen zip codes.

Data from Denmark Statistics Institute will be used to identify higher density areas and popular venues.

By knowing existing Gym and their area of coverage, by applying unsupervised learning techniques it will be determined the optimum location for opening a new fitness center.

Obtaining Data:

Using Foursquare API 50 Gyms have been identified in Copenhagen and surroundings.

Even if Frederiksberg is a separate municipality then Copenhagen, it was considered as a possible location.

Based on their Latitude and Longitude, the gyms will be plotted on the map.

Name	address	postalCode	city
Fitness World	Købmagergade 48	1150	København K
Fitness World	Worsaaesvej 17	1972	Frederiksberg
Fitness World	Gasværksvej 16	1656	København V
Fitness World	Esromgade 15	2200	København N
Fitness World	Tagensvej 129	2200	København N
Fitness World	Jagtvej 113-115	2200	København N
Fitness World	Lyongade 23-25	2300	København S
Fitness World	Århusgade 102	2100	København Ø
Fitness World	Lyngbyvej 62	2100	København Ø
Fitness World Lygten	Rentemestervej 2	2400	København NV
Fitness World	Danneskiold-Samsøes Allé 20	1434	København
Fitness dk	Amager Blvd. 70	2300	København S
Fitness World	Æbeløgade 4	2100	København Ø
Fitness dk ABC	Frederiksberg Allé 98	1820	Frederiksberg
Fitness World	Helgesvej 29	2000	Frederiksberg
The Fitness Room	Rued Langaards Vej 7	2300	København S
Fitness World	Englandsvej 28-30	2300	København S
Perfect Fitness	Øster Farimagsgade 16 B	2100	København
Fitness World	Rued Langgaards Vej 2C	2300	København S
Fitness World	Strandvejen 32F	2100	København Ø
Fitness World	Farumgade 6	2200	København N
Fitness World	Oslo Plads 2	2100	Østerbro
Fitness World	Kigkurren 1	2300	København S
Fitness World	Emdrupvej 115A	2400	København
Form & Fitness / Frankrigsgade Svømmehal	Frankrigsgade 35	2300	København S
Ascot Fitness	NaN	NaN	København
Fitness World	NaN	1666	København
Form & Fitness Scala	Vesterbrogade 2E	1620	København
Palace Fitness Room	NaN	1553	København
Repeat Fitness	Åboulevard 58	2200	København N

Fitness & Sauna	*NaN*	*1561*	*København*
Fitness Svendsen	Drejøgade 35	2100	Kbh Ø

Visualising Data

Based on the identified Venues a Heatmap was created to identify easily the area of influence of the other gyms.

The red area implies the options for finding a gym are more dense while a blue or lime area implies there are not that many options in the immediate proximity.
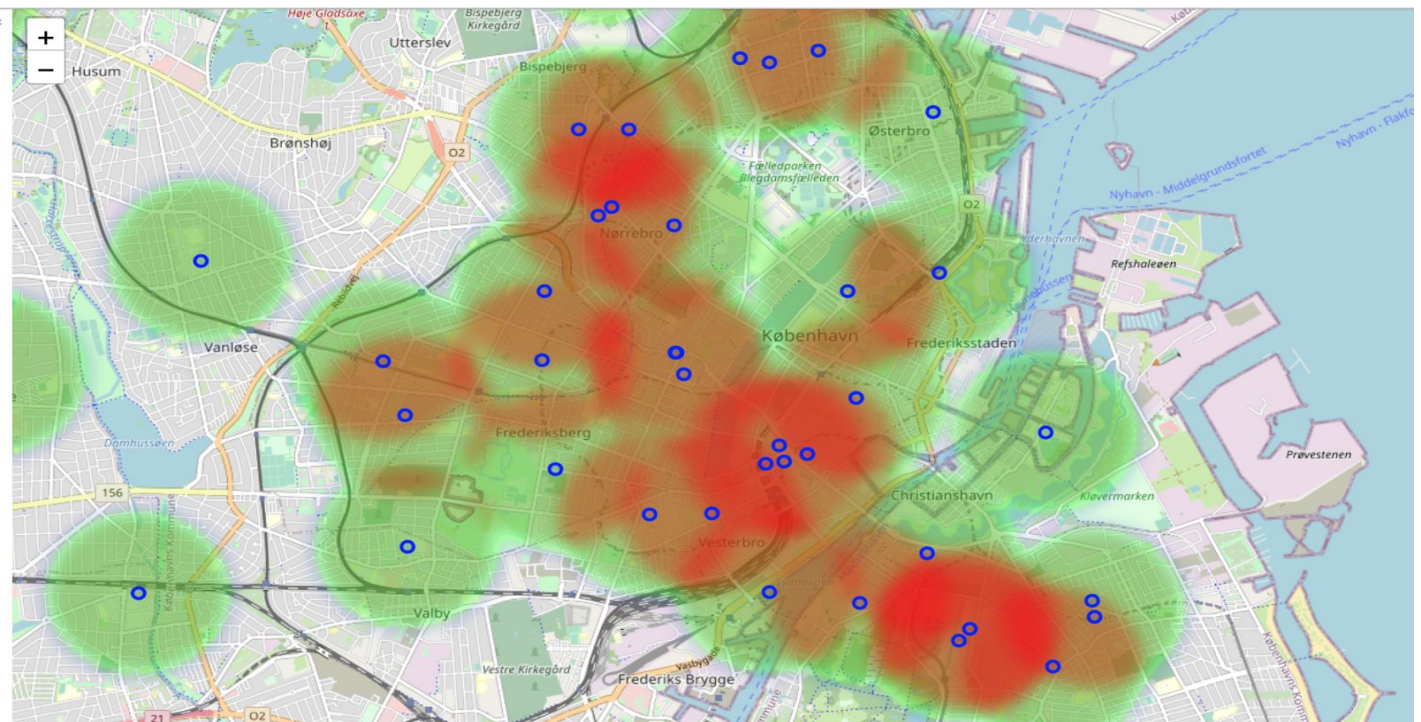
1.

Data Analysis and Interpretation

While we cannot conclude which is the best location for a new gym only based on the above data, it can be used as a starting point to single out a few locations.

The data should be cross referenced with the population density in the area and the transportation hubs / corridors.

CONCLUSION

Based on the above, the locations and the areas of influence can be adjusted considering the population density and a better picture of training facilities per person can be obtained.

A gym in the red area is not a guarantee that it will not perform, but probably the marketing efforts will have to be higher to make the gym known and to attract members from other gyms.

The competition is already high if there are 3-4 gyms clustered in an area so free offers, no signup fee, personalised training advice and programs could be considered as a marketing strategy.

REFERENCES

1. http://www.coursera.com
2. http://www.foursquare.com