Introduction :

This system builds a user recommender system that recommends users the best venue around his place. In this project a specific city named Aarhus in Denmark is chosen.

Aarhus City - a unique shopping metropolis:

Aarhus is truly West Denmark's shopping metropolis and Jutland's capital.
The city offers unique and diverse shopping experiences far beyond the usual.
Within walking distance you will find everything the heart desires from specialty shops,department stores, Denmark's largest city center, cafes, restaurants and much more...

I have chosen Aarhus City as I live here.

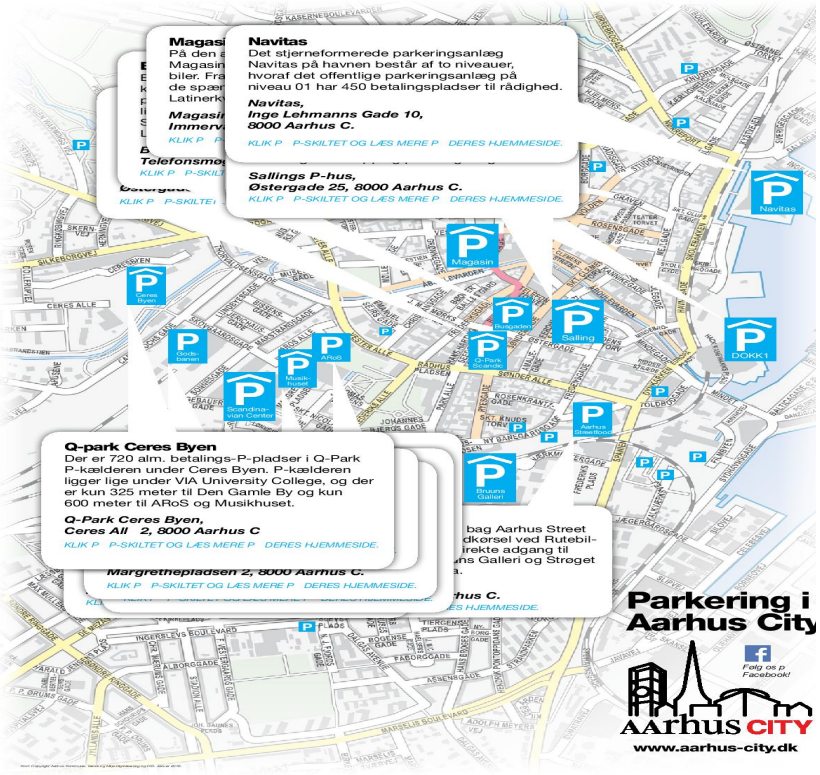
It sounds interesting to me to build a system in the city I am familiar with and check if the system shows my favorite cafe in return as a result.

Data Section:

The data required in this project is collected from foursquare location API.
The system as input takes address of the user and gives it to foursquare API in order get venues that are 500m near to the place.
The venues are sorted in a table and then cafes around that address in 500m range are extracted.
The system uses different functions like explore,search to get required data from Four square API.
This system used K¨Means clustering algorithm to cluster cafes around 500 m based on rating,distance and parking facilities.

Methodology :

In the lab, the first step is to convert addresses into their equivalent latitude and longitude values.
Moreover, then to use the Foursquare API to explore venues in Aarhus City.
We use the explore function to get the most common venue categories in Aarhus and search function to get cafes 500m near to the address.
We then explore trending venues near the address and find rating for all cafes to find the best one near to the address.
I have used k-means clustering algorithm to cluster cafes around to three groups based on distance and rating.
Finally, we will use the Folium library to visualize the cafes in Aarhus City 500 m around the address highlighting the best one.
Coding is done in Python using IBM Watson Studio.



Result :

This recommender system finally recommends a cafe that is nearer, has a high rating and a trending one to the user.

Conclusion:

This system has given a cafe that is nearer to the place of the user but it would get even better response by the system if rating is also given for the venues.