Finding the right neighborhood in a new city

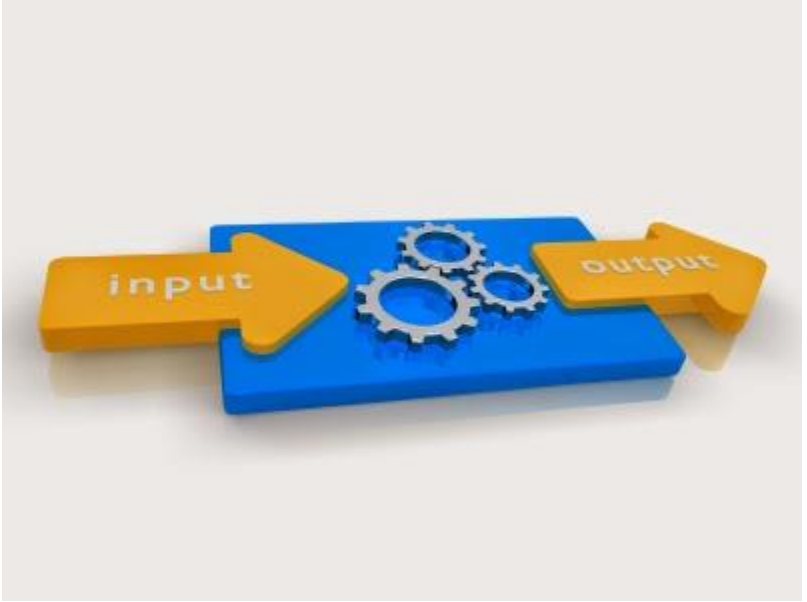
Coursera capstone final project

Moving to a unknow area?

- Professional reasons
- Personal reasons
- No housing option in neighborhood of interest
- …

How to find the right neighborhood?

- Use a recommendation system
- Input:any neighborhood of preference, from any area
- Output: similar neighborhoods in city of interest



How?

- Retrieve venues from foursquare for neighborhood in city of interest

- Recommond similar cities based on venues from input neighborhood

An example “Lange Munte”

- As an example, the neighborhood Lange Munte, Kortrijk Belgium was chosen as input

- In this example New York was chosen as target region

An example “Lange Munte”

- Venues for each neighborhood in New York were retrieved from Foursquare, and transformed into a binairy matrix

	Neighborhood	Zoo Exhibit	Accessories Store	Adult Boutique	Afghan Restaurant	African Restaurant	Airport Lounge	Airport Service	Airport Terminal	American Restaurant	...	Weight Loss Center	Whisky Bar	Windmill	Wine Bar	Wine Shop
0	Allerton	0	0	0	0	0	0	0	0	0	...	0	0	0	0	0
1	Annadale	0	0	0	0	0	0	0	0	1	...	0	0	0	0	0
2	Arden Heights	0	0	0	0	0	0	0	0	1	...	0	0	0	0	1
3	Arlington	0	0	0	0	0	0	0	0	1	...	0	0	0	0	0
4	Arrochar	0	0	0	0	0	0	0	0	1	...	0	0	0	0	0

An example “Lange Munte”

- A recommendation system was build using this neighborhood matrix to find neighborhoods resembling “Lange Munte” most.

- Top 5 resembling venues

	149	Neighborhood
107	24	Fresh Meadows
157	24	Little Neck
81	23	East Village
265	23	Sunnyside
50	23	Chinatown

An example “Lange Munte”

- These neighborhoods (red) had indeed most venues in common

Conclusions

- A recommendation system was made to recommend neighborhoods in a foreign city based on a preferred neighborhood
- An example has been worked out for Lange Munte
- Can be used by real estate agents, government or as an application to provide a more personal approach on housing opportunities in an area based on the costumers preferences

Future Perspectives

- Include preferences from other users (after building a database)
- Allow user defined preferences, requirement en constrainsts for venues
- Multiple inputs for better predictions