## IBM Data Science Capstone The Battle of Neighborhoods – Week 1

## 1. Description of the problem and a discussion of the background.

Suppose you arrive in a new town for living, and you don't know where to live. According to your needs, for example find a school for your children, not being to far from working, and to your preferences, for example having a park near your home for Sunday walking or restaurants because you're a gourmet, you will search for a neighborhood which correspond the best to you. The difficulty is that you don't know this new place and the different neighborhoods with their specificities and it will take time before you have a good knowledge of the different neighborhoods.

So how can you do? In this Capstone, I propose to answer to this question for the metropolis of Lyon using different data to give an answer to a newcomer depending on his choices.

Why the metropolis of Lyon? First, because it is where I am living for ten years, so I have a good knowledge of its neighborhoods. And a presentation of this metropole is a second kind of answer.

The metropolis of Lyon is one of the most economic and touristic attractive metropolises in Europe with a reasonable cost of life. It's a crossroads in the heart of Europe with performing transportations, economically dynamic with sectors of excellence, universities and research centers and a place where life is good with a great environment: a lot of green spaces, many historical sites (10% of the city of Lyon is listed as a UNESCO World Heritage Site), a rich cultural life and multiple sports and leisure activities. And do not forget that Lyon is the capital of gastronomy with its famous "bouchons" and great cooking chefs.

Because many people arrive each year in Lyon and his metropolis which population is growing faster than the French average, find a neighborhood where to live according to your way of life can be useful. And data may help to answer to this question.