A description of the problem and a discussion of the background

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1 Introduction

1.1 Motivation and background

Backgroud: I am a third year PhD student currently living in Paris. Paris is a living city with lot of diverse venues, in addition the public transportation in Paris is very efficient and well managed, It is very easy to go from point A to point B regardless of the location of these two points. However, renting an apartment in Paris is very expensive, and it varies highly according to the borough number.

Motivation: I have been offered a great opportunity to work in Manhattan, NY. Although, I am very excited about it, but, I want to make sure to find a fairly similar neighborhood to the one I am currently living at. I am interested in venues, metro station proximity, and apartment prices. On a personal level, I believe that this project is a good practical case towards the development of my Data Science skills.

2 Objective:

My objective is to to find an apartment to rent in Manhattan NY under certain conditions:

- The apartment rental price should be within my 7000-8000 US $ Budget.

- The Neighborhood where the apartment is located should have roughly similar venues to the one I am currently living in.

- The apartment should not be too far from the nearest metro station (within 500m).

3 Targeted audience:

I believe that this is a relevant project for a person or an entity considering moving to a major city in Europe, US or Asia. The approach and methodologies used in this Notebook could be adapted and applied for cities other than Manhatan. The use of FourSquare data and mapping techniques combined with data analysis will help us decide which apartment to rent.