# The Battle of the Neighborhoods in Middelburg,

# The Netherlands

**Teun Huibregtse**

# Table of contents

# 1. Preface

**In Dutch:

Dit bestand (notebook) en bijbehorende bijdragen is het resultaat van mijn laatste IBM Course voor Datascience, in dit notebook mag ik mijn eigen probleemdefinitie schrijven en hier tevens een oplossing voor bieden, het is echter noodzakelijk om bij het verzamelen van de data gebruik te maken van de Foursquare API, de API kan gebruikt worden voor het ophalen van interesses en beoordelingen van bijvoorbeeld restaurants of de lokale sportschool binnen een eigen gedefinieerde radius of het ophalen van gebruikersdata van Foursquare profielen, het uiteindelijke doel van de course is de mogelijkheid om problemen te beantwoorden van stakeholders met vraagstellingen als:

- Als ik zou verhuizen naar een plaats dichter bij mijn werk, naar welke wijk zou ik dan het beste naar toe kunnen verhuizen op basis van mijn intresses en behoeften?

* The rest of the document will be in English as this is the language that will help me pass the assignment, please note that my English language and grammar usage isn't the best, so please don't consider this as a professional document.

# 2. Introduction

In this chapter I will give you a description of the problem and a discussion of the background:

## 2.1. Background

This document will be the final report and end result of the capstone project in the IBM Data Science course. In this project I will use the data Foursquare API and Datascience practices to explore neighborhoods in Middelburg as this is my favorite city in Zeeland, The Netherlands.

## 2.2. Problem

I will explore the neighborhoods of Middelburg using the available data to solve and answer the following question:

- What neighborhood is best appropriate place to open a new restaurant in Middelburg?

## 2.3. Why Middelburg?

Middelburg is my favorite city because it's considered as a student's city in the province of Zeeland and I'm a student myself, the city has lots of bars and the people are rather young compared to neighboring cities and towns/villages, and I would like to live in Middelburg one day.

Also restaurants in The Netherlands have a hard time lately coping with government tax and salary of the workers and even finding the right amount of people willing to help running the business, so this tool would help owners getting the needed insights to start as efficiently and effectively as possible by getting better revenue streams based on the already available data.

# 3. Data

In this chapter I will give you a description if the data and how it will be used to solve the problem:

## 3.1 Available Data Sources

The following types of data will be used*:

| Source | Link | Problem solver |
|---|---|---|
| **Wikipedia** | https://nl.wikipedia.org/wiki/Wijken_en_buurten_in_Middelburg | List of all neighborhoods in Middelburg according to CBS (Central Bureau of Statistics) |
| **Maps.ie** | https://www.maps.ie/coordinates.html | Finding the right coordinates of the neighborhoods in Middelburg |
| **Foursquare API** | https://developer.foursquare.com/ | Scraping and gathering relevant information such as neighboring restaurants and it's menu/type of food based on its coordinates and radius |

* It would be more accurate to get open data from the municipality Middelburg as the coordinates would be a lot more correct, however this would take a lot more time as I have to file a report and wait a couple of months.