



# TRAVEL HANDBOOK

## ABSTRACT

The work presented here buckets top 50 most beautiful cities of the world into mutually exclusive clusters. The cluster labels are self-explanatory and depict the most prominent venue category in that particular cluster of cities.

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Applied Data Science Capstone Project

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## Capstone Project - The Battle of the Neighborhoods (Cities)

### Applied Data Science Capstone by IBM/Coursera

## Introduction

### Background

Tourism is one of the biggest industries in the world with an approximate size of USD 10 trillion. With better means of travel, communication and ease of connectivity, the industry grew at an approximate CAGR of 3% between 2006 and 2017 as per the World Travel and Tourism Council (WTTC). Across the globe, the rise in middle class population and changing choices of the youth have made it nearly impossible for any country to avoid its tourism sector.

Nowadays, it has become very common for people to search for travel destinations online. There exist many online portals, websites, blogs etc. that cater to the needs of travel enthusiasts in helping them plan their vacations. Also, travel companies advise their clients basis their choices and preferences.

However, it is hard to find blogs that classify cities on an overall basis based on traits that can well explain the cities in terms of its most commonly visited venues & lifestyle.

This became the inspiration for carrying out this analysis as described in the "Business Problem" section below.

### Problem Statement

In this project, we will investigate the Top 50 most beautiful cities in the world and would try to cluster them into mutually exclusive groups. Similar cities would be clustered basis the category of venues within a specified radius of the city.

We will use **Foursquare** location data to explore the cities' surroundings and cluster cities basis venues in their vicinity.

We will then find out the most commonly occurring trait that would certainly define any cluster based on the top 10 most commonly visited venues in that cluster of cities.

Lastly, we would represent the results in the form of a table and call it "**TRAVEL HANDBOOK**".

For reference, the list of cities can be accessed here : <https://www.flightnetwork.com/blog/worlds-most-beautiful-cities/>

### Business Utility

This analysis would be of use to travel enthusiasts and/ or travel magazines/ online portals which frequently publish the list of most beautiful cities that one must visit at least once in a lifetime.

The added advantage here is that, one would be able to group cities into buckets and can make travel itineraries accordingly as per one's choice.

Moreover, this analysis can be carried out at a regular interval to have the latest set of cluster groups.

