## **Capstone Project - The Battle of the Neighborhoods** (Week 1)

## **INTRODUCTION**

## **Business problem**

Suppose you have a month's holiday, and you want to spend it on a trip around Europe, you will visit 5 capitals of European countries, but you don't want to visit 5 similar cities, you want a wider experience, so you ask yourself, if I visit London, does it make sense to visit Madrid? Or should I visit Rome?

Using the cluster classification algorithm (k-means) and foursquare location data, I want to improve the travel experience in Europe, I think many travel agencies should do this to make better vacation packages for their customers to have a full European experience and not the classic trip to Paris, Rome, London.

## DATA

• To solve this problem, we will need the name and coordinates of every European capital city, example:

CountryName	CapitalName	${\sf Capital Latitude}$	CapitalLongitude
Switzerland	Bern	46.916667	7.466667
Turkey	Ankara	39.933333	32.866667
Ukraine	Kyiv	50.433333	30.516667
United Kingdom	London	51.500000	-0.083333
Northern Cyprus	North Nicosia	35.183333	33,366667

Foursquare location data of every city.

Venue	Venue Latitude	Venue Longitude	Venue Category
Ålands Sjöfartsmuseum	60.097170	19.926457	Museum
ÅSS Marina	60.098890	19.924264	Harbor / Marina
Bagarstugan Cafe & Vin	60.099727	19.943189	Café
Indigo	60.100092	19.942963	Lounge
Sjökvarteret	60.104880	19.945174	History Museum