

## **IBM Capstone Project – week 4**

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### **Travel Agency Tour Recommendation**

#### **Introduction/Business Problem**

After enabling visa free entrance to EU from Georgia, in addition to introduction of cheap and popular airlines, tourism abroad has become much more available to masses than it ever was. As an analyst at Travel Agency, I clearly see result of visa free travel and cheap airlines – more people tend to favor cheap and frequent travels.

The Travel Agency was focused on more expensive tours, with client tailored tour recommendations – the information of which was gathered manually by employees, through online searches and word of mouth. The problem is that, with recent changes, employees can't keep up with the requests of cheaper and more frequent travels, thus causing client churn rate to skyrocket. As company is not willing to give up on its main advantage over competition – client tailored tour recommendations – as well as miss an opportunity of cheap and frequent flights, some solution has to be offered.

So, this is where I come in – I plan to use Machine Learning and Location Data to cluster neighborhoods depending on its venues on my own – which was previously done by several employees over several days. The scope of the project is, that I have to prove eligibility of my offered tool on one popular travel destination – Barcelona – if I am able to cluster neighborhoods appropriately, then management will approve the tool which then will be used on other travel destinations.

#### **Data**

Combination of several sources will be the input data for the project:

1. Neighborhoods and PostCodes of Barcelona – will be collected manually and imported as a data source into the project
2. Latitude and Longitude of PostCodes – will be collected through arcgis of geocoder package
3. Venue Data of neighborhoods – Foursquare API will be used to collect Points of Interest in proximity of Neighborhoods' location