## Coursera Platform IBM Data Science Professional Certificate

# Applied Data Science Capstone (Find similar business approach)

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#### Introduction

Many business seekers or startups always looking for new ideas and promising business opportunities. When new idea come alive all think how to get benefit of these idea or where I could apply the same idea so I could success same to the existing success story.

It's now clear after many cases/experiments that not always the new idea creator will only success but many of followers who decide to walk the same road also success if they study the market well. Sometimes followers achieve gain and profit more than the idea creator just because they avoid first attempt mistakes, choose the proper market area and provide better customer service/experience.

So in this report I'll try to use what I learnt during these professional certificate track to help a businessman find appropriate neighborhoods to open the second branch of his bakery shop after the success of the first branch in Downtown, Brooklyn.

#### **Business Problem**

Allocating similar neighborhoods (market areas) for upcoming business. A businessman looking to expand his business by opening a second branch of his bakery shop after the success of the first branch located in Downtown, Brooklyn.

So the purpose is to use machine learning especially clustering algorism to cluster New York neighborhoods to define neighborhoods similar to Downtown, Brooklyn and within these cluster choose the promising neighborhood which has shortage of these service as a business opportunity for his second branch.

### **Target Audience of this project**

This report is particularly useful to business developers and investors looking to open, expand or invest in new markets and looking for guidance in allocating the proper location for these business or service. Who know and understand the benefits of machine learning in helping target their investments in many disciplines where available data and statistics can push his progress.

#### **Data**

I'll use neighborhoods data provided at previous module to build data frame of NY neighborhoods and its coordinates, also I will use New York Geo JSON data from (carto.com) for visualization purposes. Then I'll use Foursquare API to retrieve venues data along all NY neighborhoods which will be used in neighborhoods clustering, especially bakery category which will be used to allocate poor neighborhoods with the same category (bakery) in Downtown, Brooklyn cluster.