**LONDON V MANCHESTER FOR AUTO-GARAGES**

**Introduction/Business Problem**

I am a data analyst working for a company that would like to open a new auto-garage, in either London or Manchester. The aim is to find the best area within each city to open one, and to see which is the best place overall.

Where to open a new business is a difficult choice, as a business can succeed or fail based on this alone. It is important to know what the best factors to bear in mind when determining this location, and to find associations between variables where there are any.

**The most important thing to consider if opening an auto-garage, is the density of cars in the region (eg. Cars/km2). Population density should not be an important consideration (it only matters how many cars there are), but it will be interesting to see if there are any associations that may cast long term consideration of where the best venue may be. Another important consideration is how sufficiently the area is currently serviced by auto-garages. If an area with a relatively high density of cars is found, the number of existing auto-garages in the vicinity may cancel out any advantage found, or even offset it.**

For the purposes of this exercise, the type of auto-garage to be opened is the most common type that services cars and small goods vehicles, so we will be combining the figures for those and leaving out other vehicle types (motorbikes, heavy goods vehicles etc.).

I will create maps showing the current auto garages in each area (provided by Foursquare), overlayed with a colour sensitive map of each district based on the density of cars, as well as conducting exploratory data analysis to find correlations in data that I hope will give a greater understanding of the factors that result in more cars in each district. This data analysis project will not be measuring cost of land as it would be so variable within each area, but it will be a consideration when selecting locations.

Anyone wanting to open an auto garage in London or Manchester would be interested in this dataset, as well as people wanting to know the density of cars in each region for other reasons such as traffic analysis, or to open a car dealership.