# Case Study - London Calling!

## What did you find? Which borough is the most expensive? Any other interesting trends?

In examining the pricing market for the 32 London Boroughs, I noticed a large difference between pricing within these boroughs. The highest price index was in Kensington & Chelsea with a mean price approaching £800,000 while the lowest was at Barking and Dagenham with a mean price approaching £200,000. As K&C has a high starting value, it is expected that the value would exhibit a large value change (they are, in fact, number one where change in value is concerned) while the percentage would remain relatively stable. B&D would, logically, experience the opposite trend: low value change and high percentage change. The realistic trend was surprising: K&C experienced both value growth and percentage growth despite the already large value of their housing index. B&D stayed close to the bottom for both value and percent change, so that also was slightly surprising.

## How did you arrive at your conclusion?

Upon analysis of the data, I realized I could not just rely on trends involving value alone due to the prices involved. Rather, I decided to analyze both the increase in value and the percent change between monthly data points for each of the 32 boroughs. This produced two different hierarchies of metrics to analyze. Luckily, they agreed on the final metric of which borough is the most expensive.

## What were the main challenges you encountered? How did you overcome them? What could you not overcome?

Some challenges that I encountered involved manipulating the data to be able to accurate investigate and build enough evidence to come to a logical and supported conclusion. When encountering issues, my first resource was the official Python and Pandas documentation. It proved very useful and included many arguments that I may have otherwise overlooked. The other resource I used was Stack Overflow. It’s forum approach allowed me to see several different methods of achieving similar results. When absolutely stuck, I would delete and rebuild sections of my code in order to try to better understand where the inherent flaw was and to make sure that the flaw doesn’t repeat itself.

## Is there anything you’d like to investigate deeper?

This was a very intense and interesting project. I liked many aspects of it, but I would like to delve deeper into trend analysis and machine prediction of where these trends will go.