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

* Housing price increases in the last 2 decades differed significantly within and across price range.
* There has not been a big difference in term of price ranks meaning the more expensive boroughs in 1995 remained more expensive in 2021. The biggest price difference in absolute values are of those more expensive boroughs.

Chart

Description automatically generated

Figure 1: Average housing price in 2011 vs. 1995 labeled by boroughs

* However, when looking at the ratio between the 2018 and 1998 values, a more interesting trend was revealed among the less expensive boroughs. A more rapid growth occurred among the cheaper neighborhoods. A house that was worth between 60-80k in the less desired boroughs in 1995 such as – Hackney, Waltham Forest, Hounslow, etc.. – could be anywhere between 300k-600k in 2021, that is almost double the values. There could be other factors such as socioeconomical, infrastructure, or educational differences that have made some boroughs more desired to live in 2021.

Chart

Description automatically generated

Figure 2: 2018 vs. 1998 price ration vs. housing price in 1995 labeled by boroughs

* A median house price in Kensington & Chelsea was almost 4 times that in Hackney in 1995. Even though that ratio remained about the same after 2 decades, the absolute difference between median housing prices between these 2 boroughs has grown from roughly 140k to almost 950k. The gap is now is almost 7 times as big as it’s used to be.

Table 1: London boroughs ranked by absolute price differences in average housing price between 2021 and 1995

Table

Description automatically generated

* Looking at the price ratios alone gave us the impression that the less expensive boroughs underwent more significant changes and became more desirable over years. My hunch is that because the differences in cost widened drastically over 2 decades, housing became less affordable in the more expensive boroughs and drove people to look for more affordable options. The less expensive boroughs became more desired simply because of a higher demand rather than a direct consequence of more socialeconomical developments happened in those boroughs. Nevertheless, one has to look at other confounding factors such as numbers of house sold per boroughs, median income growth, etc.. to gain a deeper understanding of this.

1. How did you arrive at your conclusion?

I tried to segment the data and plotted them in different ways to understand the different patterns.

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

The primary challenge is to efficiently apply different syntax and data manipulation techniques using pandas. With a little help from Google and StackOverFlow I was able to tackle them.

1. Is there anything you’d like to investigate deeper?

The one I couldn’t overcome was to figure out other correlations between changes in housing price and social developments in London boroughs in the last 2 decades. If time permits, I would look into this in the future.