VISUALIZATION PROJECT

The whole project is composed of three types of visualization. During the topic research, the main goal was to have a link between all visualizations. Thus, all the visualizations are about a same overall subject: trying to find the best and cheapest places to live in France.

Static Visualization

The first visualization (static) is about the median cost of a house in euros in some seaside resorts cities. This visualization is clearly not perfect and has a lot to improve. I didn't want to do a simple bar chart so I tried to do a tornado chart (or butterfly chart or double-sided bar chart?). However, the difficulty here is that the real estate evolution has negative values. Thus, it was hard to represent and that's why I chose to do it on Excel (due to my poor coding skills) and made some modifications in Illustrator. The result is not exactly how I wanted it to be. Here are the points to review:

- Remove elements (too much data ink): for example, I could have removed the regions names and instead put a legend to tell the user that blue is Nouvelle-Aquitaine. In this way, I could have also ranged my graph by value.
- The type of graph (tornado chart) doesn't work well here to my mind due to the negative values

It was very hard to me to find a good static visualization that was not too simple. But on the whole, I tried to remove elements to make it as light as possible.

Map Visualization

The second visualization (map) is about the house sales made in France from 2017 to the end of 2019. I made this map on MapBox. The main difficulty here was to find the data and to gather it into one CSV file. To do so, I wrote a Python script to extract the values I was interested in and to combine them into one file. At the first time, I had also put the size of the 10 biggest cities of France on the Map but it didn't bring much interest into what I wanted to show. I wanted to show where are the most expensive houses and where are the areas where the real estate is less high. I think the visualization works well and again I tried to keep it as light and as simple as possible. I could have removed the countries apart from France but I found interested to see the coastline and the frontiers to locate the places with their surroundings. I am a bit more sceptic regarding the size of the point in the legend but I didn't want to change the value in order not to bring confusion. To finish, some data are hidden due to the high concentration in sales. However, as the goal here is to identify areas, it seems not to be a problem.

Interactive Visualization

Then, the last visualization (interactive) is an interactive map made thanks to Carto and Carto.js. It represents some quality of life figures in France per departments. There were several difficulties to make this map:

- Gathering the data: data hard to find
- Joining the data (CSV file) with departments (Shapefile): I used QGIS to join the data
- Exporting json file and coding in Carto.js

The result is far away from what I wanted at the beginning because of the time passed trying to code. But I am pretty satisfied about the result. Again, the goal here was to minimize data ink even if I could have gone further if I had more time:

- I wanted to do a scroll down menu to choose the criteria but I didn't succeed in coding this. This menu would have decreased data ink
- The legend is not link with each layer, it is simply a non-evolutive legend (that's why I didn't put values and I just put "low" and "high"): that's mainly due to the fact that we can't properly export json file from carto builder
- I should have created a space without the map in it to put the title and headline so that when I zoom in the map the title and headline don't get over the map
- I wanted the user to choose 2 or 3 criteria to represent and then the code calculates the average by itself. By lack of time, I have just inserted the total average for several criteria
- The base map could have been removed but I didn't know how to do it

On the whole, the project allows me to discover and to practice coding (Python, HTML, CSS, JavaScript). As I am in Urban Engineering, I was happy to made some maps and to have used both MapBox and Carto (I even used QGIS!). The elements that I would most keep in mind from this course are:

- Paying attention to the values and their representation
- Keep it simple
- Keep it light

To finish, I think that's very interesting because in the past I would have been proud of my visualizations but today I can identify many ways of doing it better and cleaner.