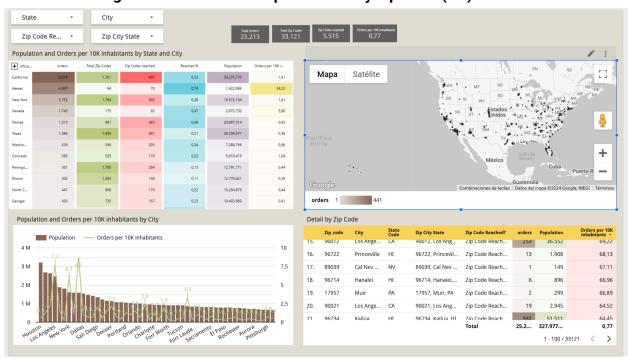
# Orders by Zip Code Map Looker Studio

The project aimed to create a map in Looker Studio that makes it very easy to view how many orders have been sold per each US zip code, city, and state. The report also allows the user to understand the potential opportunity for sales by zip code, city, and state, as it includes total population and other demographic information. With information such as the total quantity of orders and the populations by zip code, it was possible to create metrics like "orders per 10K inhabitants" and the "percentage of zip codes reached." This enables commercial stakeholders to easily identify which zip codes, cities, or states represent good opportunities for commercial efforts.

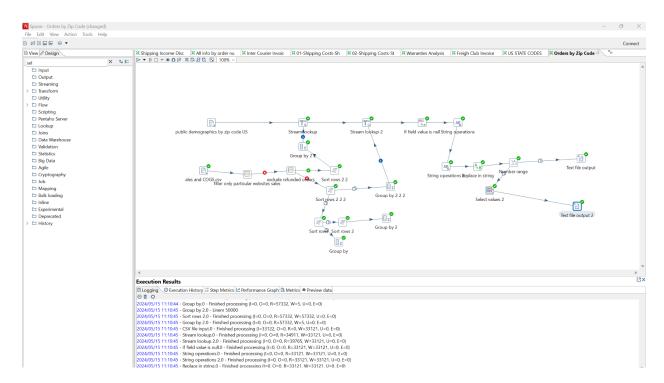
#### Deliverable image. Dashboard and map of orders by zip code (US)



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# Basic ETL/ data preparation. Integration of public demographic data with customers sales data

For this project there was a short data preparation step which required integrating a public file that contained demographic information about all zip codes in the US with another file that contained all the information about sales and orders from my customer. The final csv file would contain the detail of all zip codes in the US with the corresponding demographic data and order information from my customer.



# Uploading of resulting csv file to Looker Studio and creation of measure

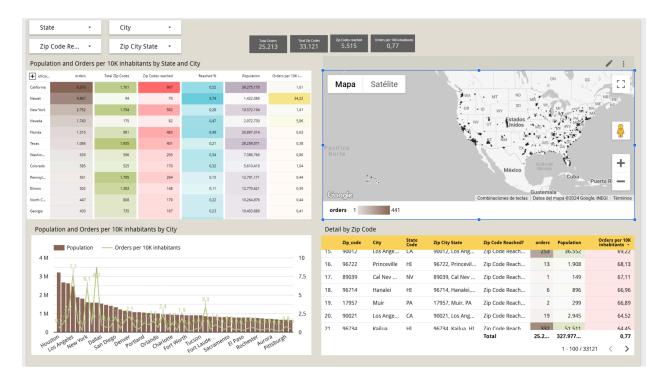
The only resulting csv file was then uploaded to Looker Studio. Looker Studio updates the data automatically or by pressing the refresh data bottom at the upper right corner of the screen. To be able to create a responsive map and to render the information correctly, Looker Studio requires the Zip code data in a particular format. For this purpose, a couple of fields were created within Looker Studio Environment.

#### Data Visualization:

### Looker Studio dashboard containing a "Filled map" graph

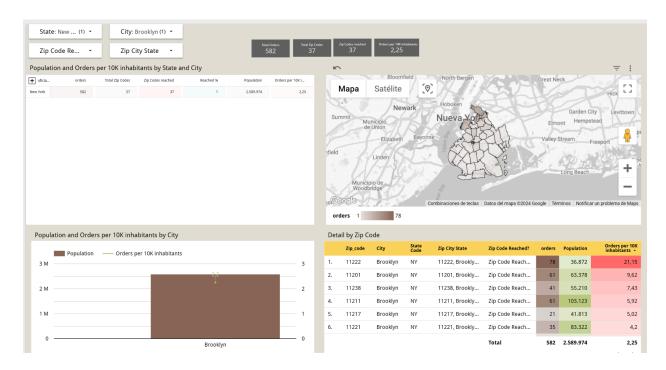
After the creation of the fields that were necessary so the "filled map" graph would render correctly, I proceeded to create the dashboard and the map.

Initially the map displays all zip codes in the US that at least accumulated one order, painting with darker color the zip codes which accumulated the higher total number of orders (by zooming in the difference in the tone of the color is more noticeable)



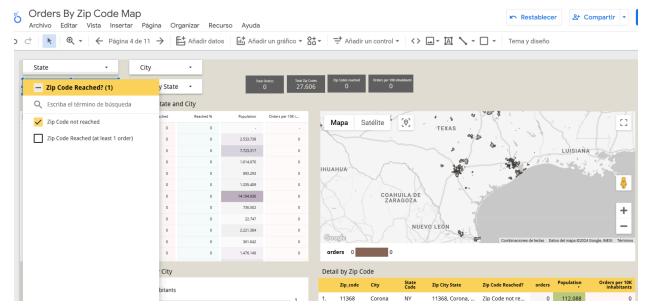
## Filtering by State or city

So, for example, something that is interesting is that by selecting a particular state or a city, for this particular example I filter the city of Brookly (NY), the map would clearly display wich zip codes accumulated the higher quantity of orders.

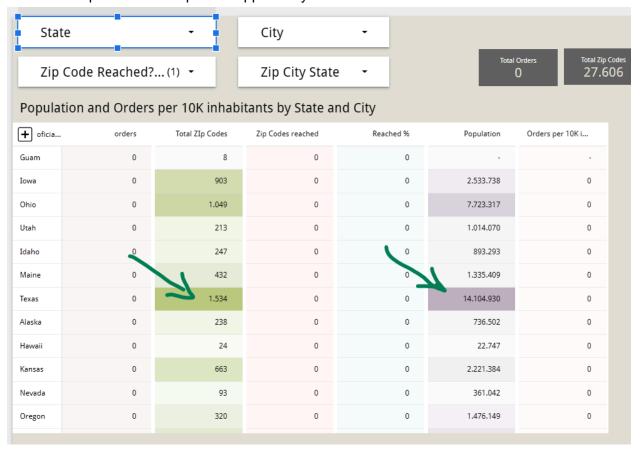


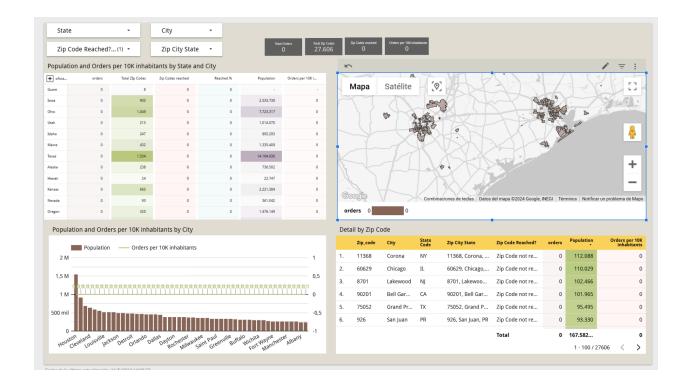
### Filtering by Zip Codes that havent been reached yet.

The dashboard has a filter which allows the user to view only Zip codes that have being reached so far, (not being reached meaning that no order has been created from there yet).



So after filtering only Zip coders not reached, I can see for example, in the table below the filter that Texas has an important quantity of Zip Codes not reached which count with an important population. So based on that fast analysis I also filter Texas in the dashboard. This could mean that Texas represent and important opportunity for new sales.





# Impact for the company

As a direct result of the use of this map, the commercial team of company was enabled to rapidly understand which zip codes represented an important opportunity for new sales, based in the current quantity of orders, the total population of the particular zip code, and metrics that were created within Looker studio, such as "Orders per 10K inhabitants".

The marketing and commercial efforts were then targeted to cities which represented a bigger opportunity.