# The Battle of Neighborhoods

The objective is to be able to find the cities and the most optimal points in them to open a new business that seeks to reach a high purchasing power but that in the same way offers services that can be used by the whole society in general, seeking to stand out for its high quality, affordable prices and innovation.

# DATA

1. Colombia postal codes
2. Dane name and codes georeferencing
3. Layers of Dane's apples
4. Dane multidimensional poverty survey information
5. Colombia Census 2018 Dane
6. Dane household income and expenditure survey
7. ArcGIS API
8. Foursquare API data

The Dane layers were exported to be able to obtain the segment of customers to be impacted, obtain the visualization of the blocks on the map and later the model was built, the map was drawn with the clusters corresponding to the location and then we compared and we discuss the findings.

The blocks that have internet service and that are located in Medellin are selected.

# K-MEANS

We will use the K Means Clustering machine learning algorithm to group similar neighborhoods. There are many different cluster sizes we can select from, we will go with a cluster number of 6 to keep it as optimized as possible.

# DISPLAY GROUPED