

CAPSTONE PROJECT

THE BATTLE OF NEIGHBORHOODS



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Description of the problem

The Manhattan borough is one of the best known and most visited in New York, in which more than 90% of the main actions of the city are concentrated: the Empire State Building, the Rockefeller Center, the Chrysler Building and the incredible Times Square, to name a few.

In addition to its wonderful tourist and commercial attraction, it is an ideal place to live, surrounded by the Hudson (west) and Harlem (north) rivers. Each person is different, with different tastes and interests, and these are really important factors when buying an apartment. It is also necessary to know the environment and the places that are in the surroundings of the new home, since these provide an overview of the quality of life that can be had there and is a very valuable element to promote the purchase of real estate goods.

That is why a person before buying an apartment in Manhattan asks the following question: how to consider and choose the best neighborhood to live in Manhattan according to the main places that surround the area?

Data

Two different sources were taken as reference for the elaboration of this project:

- The first comes from the renowned Kaggle site. A record was selected for each building or construction unit (apartment, residence, etc.) sold on the New York City property market, over a 12-month period, specifically September 2016 to the same month in 2017.
<https://www.kaggle.com/new-york-city/nyc-property-sales>

The dataset in Kaggle corresponds to a modified version of the New York City Department of Finance that considered continuous sales information.

<https://www1.nyc.gov/site/finance/taxes/property-rolling-sales-data.page>

The data set is made up of:

- **BOROUGH:** a digit code for the borough where the property is located. Manhattan (1), Bronx (2), Brooklyn (3), Queens (4), and Staten Island (5).
- **NEIGHBORHOOD**
- **BUILDING CLASS CATEGORY**
- **TAX CLASS AT PRESENT**
- **BLOC**
- **LOT**
- **EASE-MENT**
- **BUILDING CLASS AT PRESENT**
- **ADDRESS**
- **APARTMENT NUMBER**
- **ZIP CODE**
- **RESIDENTIAL UNITS**
- **COMMERCIAL UNITS**
- **TOTAL UNITS**

- **LAND SQUARE FEET**
- **GROSS SQUARE FEET**
- **YEAR BUILT**
- **TAX CLASS AT TIME OF SALE**
- **BUILDING CLASS AT TIME OF SALE**
- **SALE PRICE**
- **SALE DATE**

- The second source was taken from Foursquare, through its developer API. Foursquare is a specialized location technology platform dedicated to improving the way people move around the real world. It is a service based on web location applied to social networks. From it we drew the busiest places around the Manhattan borough neighborhoods.

<https://es.foursquare.com/>