

CAPSTONE PROJECT: BATTLE OF NEIGHBORHOODS

INTRODUCTION

New York City (NYC), often called **The City** or simply **New York (NY)**, is the most populous city in the United States. With an estimated 2019 population of 8,336,817 distributed over about 302.6 square miles (784 km²), New York is also the most densely populated major city in the United States.^[6] Located at the southern tip of the U.S. state of New York, the city is the center of the New York metropolitan area, the largest metropolitan area in the world by urban landmass.^[10] With almost 20 million people in its metropolitan statistical area and approximately 23 million in its combined statistical area, it is one of the world's most populous megacities. New York City has been described as the cultural, financial, and media capital of the world, significantly influencing commerce, entertainment, research, technology, education, politics, tourism, art, fashion, and sports. Home to the headquarters of the United Nations,^[12] New York is an important center for international diplomacy.^{[13][14]}

Situated on one of the world's largest natural harbors, New York City is composed of five boroughs, each of which is a county of the State of New York.^[15] The five boroughs—Brooklyn, Queens, Manhattan, the Bronx, and Staten Island—were consolidated into a single city in 1898.^[16] The city and its metropolitan area constitute the premier gateway for legal immigration to the United States. As many as 800 languages are spoken in New York,^[17] making it the most linguistically diverse city in the world. New York is home to more than 3.2 million residents born outside the United States,^[18] the largest foreign-born population of any city in the world as of 2016.^{[19][20]} As of 2019, the New York metropolitan area is estimated to produce a gross metropolitan product (GMP) of \$2.0 trillion. If the New York metropolitan area were a sovereign state, it would have the 8th largest economy in the world. New York is home to the highest number of billionaires of any city in the world.

People from all over the globe tend to migrate to the New York city to enjoy the metropolis benefits of the city. Among all those migrated, are sportspersons, athletes, gym rats and keep-fit-fanatics. Most of them while migrating seem to be confused about which part of the city they should settle. Their major preference is well accessible gyms or fitness centres. This project will explore the city of New York and try to solve this problem.

PROBLEM

This project will explore the data and find solutions as follows:

- Visualize the city of New York on a map
- Explore and visualize the boroughs and neighborhoods in the city
- Explore Gyms and Fitness Centers in each borough
- Explore Gyms and Fitness Centers in each neighborhood
- Analyze the borough consisting the largest number of Gyms and Fitness Centers
- Analyze the neighborhood consisting the largest number of Gyms and Fitness Centers
- Select the preferred borough
- Visualize the borough and its neighborhood on maps
- Find possible solutions of settling in the best possible neighborhood