

# Final Report: Fitness Industry Investment Recommendation

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## Client Brief

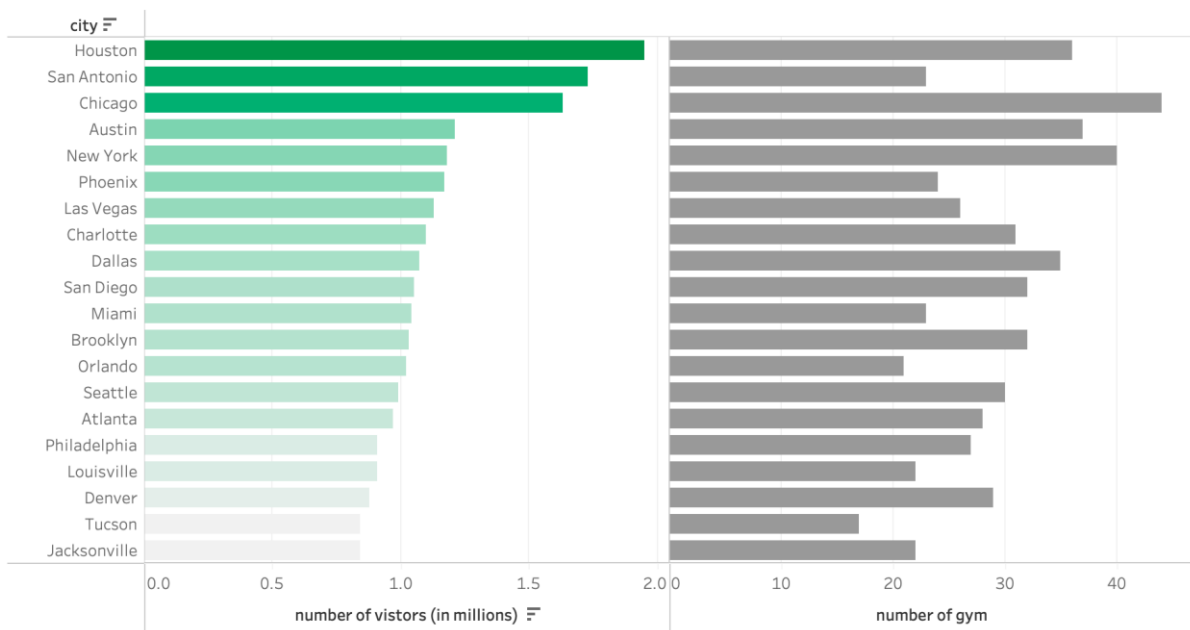
Our client, Anna, has expressed a keen interest in investing in the fitness industry. As a first-time investor with a conservative approach, she seeks guidance on effectively managing her investment. After discussing her objectives, we have gathered essential information regarding her investment preferences. Anna has not yet selected a specific brand or location; however, she favors well-established, large-chain gyms with a proven track record of stable earnings to minimize her investment risk. In response to her needs, we have conducted a comprehensive analysis of the fitness sector to identify cities and brands that align with her investment criteria.

## Analysis Process

Step 1: In which cities are the most popular fitness brands predominantly located?

- **Goal:** To identify the most suitable cities for gym chain expansion by assessing the stability and demand for fitness facilities.
- **Process:** We define 'stability and demand' using two key metrics: the number of existing chain gyms and the number of visitors. A higher number of both chain gyms and visitors indicates greater market stability and demand for fitness services in that city.
- **Conclusion:** Our analysis has identified the top 10 cities with the most popular fitness center locations (fig 1). Houston ranks first with the highest number of visitors, totaling 1.95 million, while Chicago offers the greatest diversity of fitness center brands. This list allows us to conduct further analysis of each city to recommend the most suitable option for our client.

## City Comparison of Visitor Numbers and Gym Availability

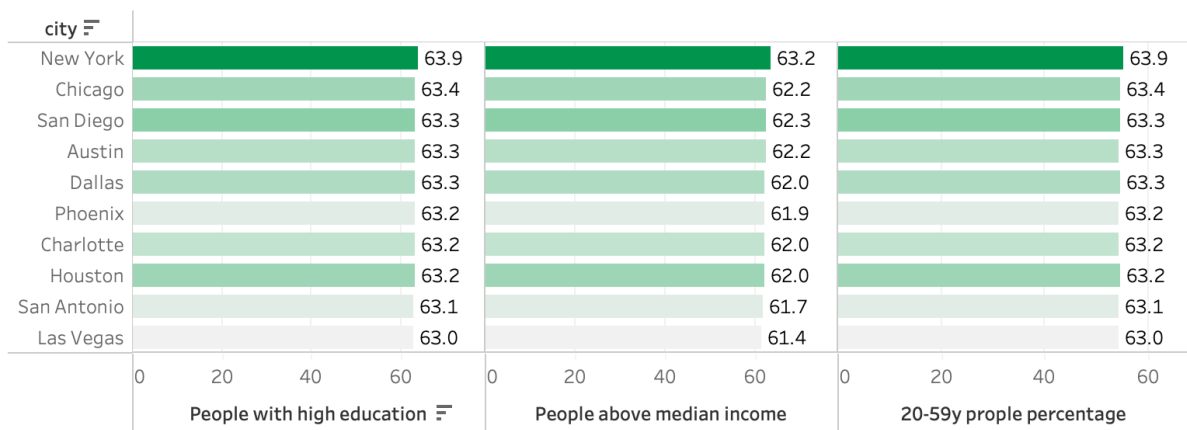


**Figure 1: City Comparison of Visitor Numbers and Gym Availability**

Step 2: What are the key differences in target demographics across the top 10 most popular fitness cities?

- Goal:** The goal is to analyze the differences in education and income levels among the top 10 most popular fitness cities, thereby identifying locations with significant variations in our client's target demographics.
- Process:** We conducted a thorough comparison of education levels, income levels, and total population across these 10 cities. Our selection criteria focus on the demographics relevant to gym targets: education levels exceeding high school graduation and income levels above the U.S. median. Furthermore, we prioritized cities with high population density to better understand the potential target audience.
- Conclusion:** Our analysis revealed minimal differences in higher education levels across the cities, prompting us to shift our focus to income and demographic structure. We found that New York has the highest percentage of individuals in both the 20-29 and 20-59 age groups among the top 10 cities, along with the largest percentage of individuals earning over \$200,000 (fig 2). Given that the 20-29 age group is particularly prominent in the target demographics and considering the fitness activity of the 20-59 age group, we have identified New York as the primary target location due to its high concentration of affluent, fitness-active individuals.

## Comparison of High Education, Above-Median Income, and 20-59 Age Group Percentages Across Major Cities

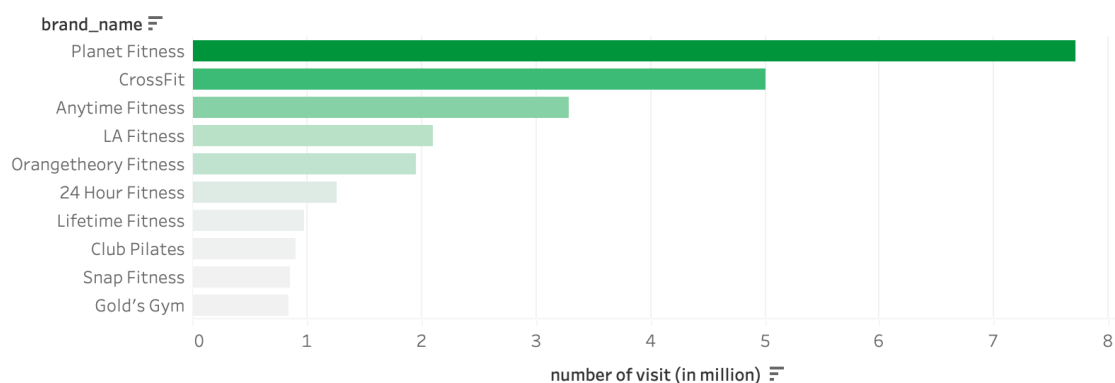


**Figure 2: Comparison of Education, Income, and Age Demographics Across Major Cities**

### Step 3: What are the top 10 most popular gym brands in the U.S. based on visit counts?

- **Goal:** The goal is to assist the client in identifying the most suitable gym brand for investment in New York, following the selection of the city in the previous step.
- **Process:** Given the client's conservative investment strategy, we will filter gym brands based on visit counts to identify the most popular and established options. This approach allows the client to prioritize operational efficiency, as these brands have already built significant brand awareness and customer loyalty.
- **Conclusion:** Our analysis resulted in a list of the top 10 gym brands ranked by visit counts (fig 3). The high visitation numbers indicate that these brands have established a stable customer base and generate consistent revenue, aligning well with the client's risk-averse investment preferences.

#### Top 10 most popular gym brands



**Figure 3: Top 10 Most Popular Gym Brands by Number of Visits**

#### Step 4. Which gym brands present opportunities for expansion or market growth in New York City?

- **Goal:** The goal is to identify gym brands that present opportunities for expansion or market growth in New York City, enabling us to recommend the most suitable investment option for our client.
- **Process:** After selecting New York as the target location, we will conduct an analysis to determine whether the top 10 popular gym brands have established locations in the city. If any brands do not have a presence in New York, this indicates a potential opportunity for market expansion, allowing us to leverage their established brand reputation.

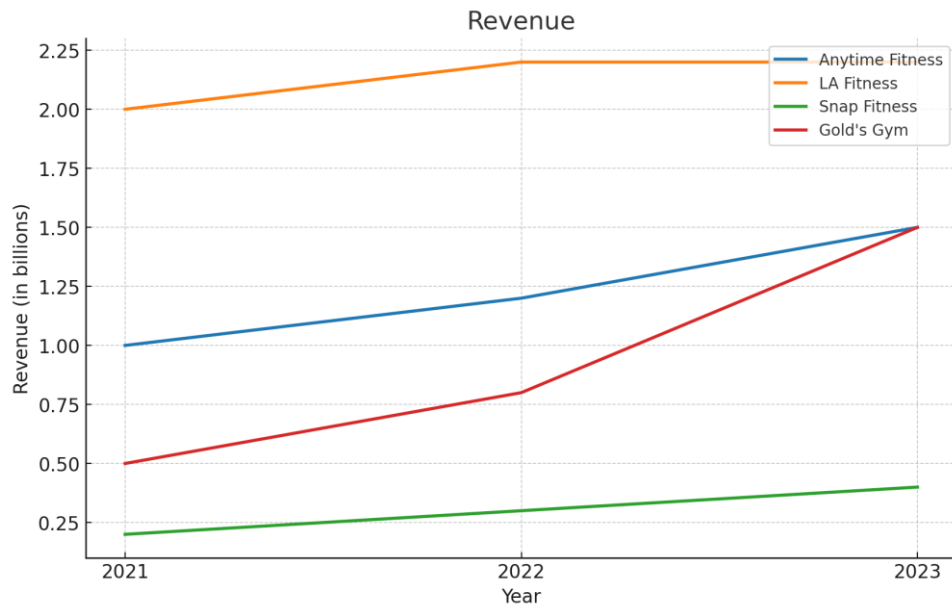
We will narrow down our investment candidates to ten fitness brands based on the list derived in Step 3. Subsequently, we will compare this list against the findings from Step 2 to identify which gyms have already established locations in New York.

- **Conclusion:** Our analysis indicates that the following gyms have already established locations in New York: CrossFit, Planet Fitness, Orangetheory Fitness, Club Pilates, Lifetime Fitness, and 24 Hour Fitness. Conversely, the brands with high visit counts that have yet to enter the New York market include Anytime Fitness, LA Fitness, Snap Fitness, and Gold's Gym. We believe these four brands, which have significant foot traffic but no existing presence in New York, represent substantial investment and growth opportunities.

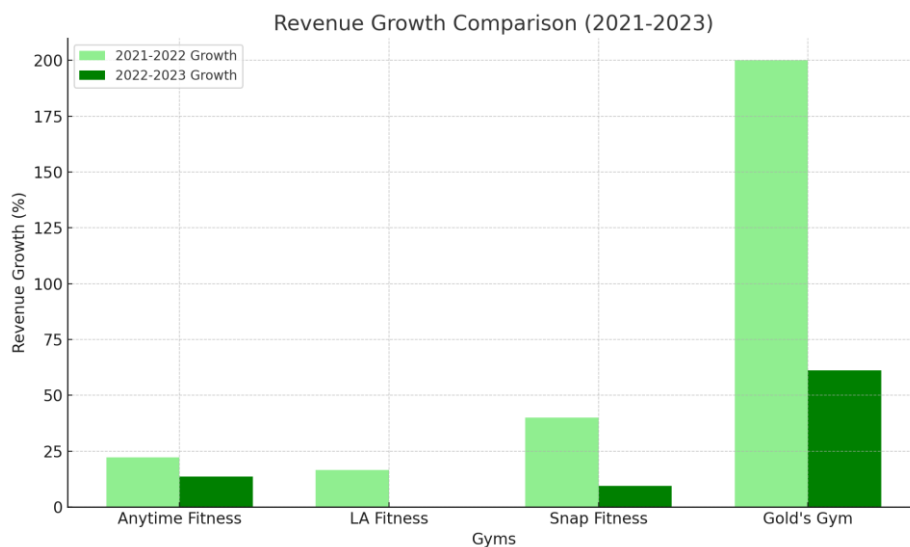
#### Step 5. Gold's Gym & LA Fitness: Leading Growth and Investment Potential Among Competitors for New York City

- **Analysis:**
  - Anytime Fitness: Modest, stable growth indicates steady expansion potential.
  - LA Fitness: Growth plateau suggests limited immediate expansion opportunities.
  - Snap Fitness: Expansion potential exists, but recent growth deceleration raises concerns.
  - Gold's Gym: High growth potential and momentum present a significant investment opportunity.
- **Conclusion:** Among these four gyms, Gold's Gym stands out with remarkable revenue growth, increasing by 200% from 2021 to 2022 and 61.11% from 2022 to

2023 (fig4, 5). Despite its low revenue amount, this impressive growth indicates that Gold's Gym presents higher investment and growth potential compared to the other three gyms. LA Fitness, on the other hand, has shown stable revenue growth, making it a reliable investment option despite its current growth plateau. This stability may appeal to investors looking for consistency in their portfolios.



**Figure 4: Revenue Growth of Major Gym Chains (2021-2023)**



**Figure 5 Revenue Growth Comparison of Gym Chains (2021-2023)**

# Investment Proposal for Our Client

Dear Anna,

Thank you for entrusting us with the analysis of your investment project. After conducting a comprehensive review, we recommend New York as your primary target location, given its high concentration of affluent, fitness-conscious individuals.

Additionally, our examination of the revenue performance of the four fitness candidates has led us to suggest considering an investment in either Gold's Gym or LA Fitness. Gold's Gym demonstrates a remarkable revenue growth rate, indicating strong market potential. Although LA Fitness may not exhibit the same level of growth, it currently generates substantial revenue, outperforming its competitors in terms of overall financial performance. Moreover, both brands have established a solid reputation in other cities, providing a reliable foundation for your investment.

We look forward to supporting you further in this promising venture.

Best regards,

Your Wealth Management Team

Chao Hsueh-Ning, Chiang Jou-Ting, Lin Da-Fang, Su Qi

# APPENDIX: QUERY LOG

Question 1: In which cities are the most popular fitness brands predominantly located?

Goal: Filter the cities based on the number of raw visitors and the number of chain stores.

Query:

--Top 10 cities with the most popular gyms(filter by visitor and chain store number)

```
select
    d.region,
    d.city,
    round(sum(b.raw_visitor_counts) / 1e8,2) as raw_visitor_counts_in_hundred_million,
    count(distinct a.safegraph_brand_id) as safegraph_brand_cnt
from `hsuehning-fa24-mgmt58200-final.MOD.brands` a
inner join `hsuehning-fa24-mgmt58200-final.MOD.visits` b on a.safegraph_brand_id = b.safegraph_brand_ids
inner join `hsuehning-fa24-mgmt58200-final.MOD.places` d on a.safegraph_brand_id = d.safegraph_brand_ids
where a.top_category = "Other Amusement and Recreation Industries"
    and a.sub_category = "Fitness and Recreational Sports Centers"
group by 1,2
order by raw_visitor_counts_in_hundred_million desc, safegraph_brand_cnt asc
limit 10
```

Question 1 Result

| region | city        | raw_visitor_counts_in_hundred_million | safegraph_brand_cnt |
|--------|-------------|---------------------------------------|---------------------|
| TX     | Houston     | 1.95                                  | 36                  |
| TX     | San Antonio | 1.73                                  | 23                  |
| IL     | Chicago     | 1.63                                  | 44                  |
| TX     | Austin      | 1.21                                  | 37                  |
| NY     | New York    | 1.18                                  | 40                  |
| AZ     | Phoenix     | 1.17                                  | 24                  |
| NV     | Las Vegas   | 1.13                                  | 26                  |

|    |           |      |    |
|----|-----------|------|----|
| NC | Charlotte | 1.1  | 31 |
| TX | Dallas    | 1.07 | 35 |
| CA | San Diego | 1.05 | 32 |

Question 2: What are the key differences in target demographics across the top 10 most popular fitness cities?

Goal: Determine the percentage of individuals with high income, high education, and analyze population demographics across the cities.

Query:

-- Top 10 Cities: Analysis of High Income Ratio, High Education Ratio, and Population Demographics.

```
select
    d.region,
    d.city,
    round(sum(c.pop_total) / 1e8,2) as pop_total_in_hundred_million,
    round(sum(`pop_m_20` + `pop_f_20` + `pop_m_21` + `pop_f_21` + `pop_m_22-24` +
`pop_f_22-24` + `pop_m_25-29` + `pop_f_25-29`) * 100 / sum(c.pop_total),2) as
pop_20_29_percentage,
    round(sum(`pop_m_30-34`+`pop_m_35-39` +`pop_f_30-34`+`pop_f_35-39`) * 100 /
sum(c.pop_total),2) as pop_30_39_percentage,
    round(sum(`pop_m_40-44`+`pop_m_45-49` +`pop_f_40-44`+`pop_f_45-49`) * 100 /
sum(c.pop_total),2) as pop_40_49_percentage,
    round(sum(`pop_m_50-54`+`pop_m_55-59`+ `pop_f_50-54`+`pop_f_55-59`) * 100 /
sum(c.pop_total),2) as pop_50_59_percentage,
    round(sum(`pop_m_20` + `pop_f_20` + `pop_m_21` + `pop_f_21` + `pop_m_22-24` +
`pop_f_22-24` + `pop_m_25-29` + `pop_f_25-29` + `pop_m_30-34`+`pop_m_35-39`
+`pop_f_30-34`+`pop_f_35-39` + `pop_m_40-44`+`pop_m_45-49` +`pop_f_40-
44`+`pop_f_45-49` + `pop_m_50-54`+`pop_m_55-59`+ `pop_f_50-54`+`pop_f_55-59`) *
100 / sum(c.pop_total),2) as pop_20_59_percentage,
```



```

round(sum(edu_hs+edu_ged+edu_coll_lt1+edu_coll_gte1+edu_coll_assoc+edu_coll_bach+edu_coll_mast+edu_coll_prof+edu_coll_doc) / 1e8, 2) as
edu_gte_hs_cnt_in_hundred_million,

round(sum(edu_hs+edu_ged+edu_coll_lt1+edu_coll_gte1+edu_coll_assoc+edu_coll_bach+edu_coll_mast+edu_coll_prof+edu_coll_doc) * 100 / sum(c.pop_total), 2) as
edu_gte_hs_percentage,

round(sum(`inc_50-60`) * 100 / sum(`inc_total`), 2) as inc_50_60_percentage,
round(sum(`inc_60-75`) * 100 / sum(`inc_total`), 2) as inc_60_75_percentage,
round(sum(`inc_75-100`) * 100 / sum(`inc_total`), 2) as inc_75_100_percentage,
round(sum(`inc_100-125`) * 100 / sum(`inc_total`), 2) as inc_100_125_percentage,
round(sum(`inc_125-150`) * 100 / sum(`inc_total`), 2) as inc_125_150_percentage,
round(sum(`inc_150-200`) * 100 / sum(`inc_total`), 2) as inc_150_200_percentage,
round(sum(`inc_gte200`) * 100 / sum(`inc_total`), 2) as inc_gte_200_percentage,
round(sum(`inc_50-60` + `inc_60-75` + `inc_75-100` + `inc_100-125` + `inc_125-150`
+ `inc_150-200` + `inc_gte200`) * 100 / sum(`inc_total`), 2) as
inc_gte_50_percentage,

round(sum(`inc_total`) / 1e8, 2) as inc_total_in_hundred_million,

round(sum(b.raw_visitor_counts) / 1e8, 2) as raw_visitor_counts_in_hundred_million
from `hsuehning-fa24-mgmt58200-final.MOD.brands` a
inner join `hsuehning-fa24-mgmt58200-final.MOD.visits` b on a.safegraph_brand_id =
b.safegraph_brand_ids
inner join `hsuehning-fa24-mgmt58200-final.MOD.cbg_demographics` c on b.poi_cbg =
c.cbg
inner join `hsuehning-fa24-mgmt58200-final.MOD.places` d on a.safegraph_brand_id =
d.safegraph_brand_ids
where a.top_category = "Other Amusement and Recreation Industries"
and a.sub_category = "Fitness and Recreational Sports Centers"
and d.region in ("TX", "IL", "NY", "AZ", "NV", "NC", "CA")

```

```

and d.city in ("Houston", "San Antonio", "Chicago", "Austin", "New York", "Phoenix", "Las
Vegas", "Charlotte", "Dallas", "San Diego")

group by 1,2

order by raw_visitor_counts_in_hundred_million desc

```

## Question 2 Result

### Output: High Education Ratio

| region | city        | edu_gte_hs_cnt_in_hundred_million | edu_gte_hs_percentage |
|--------|-------------|-----------------------------------|-----------------------|
| TX     | Houston     | 9.8                               | 63.2                  |
| TX     | San Antonio | 8.18                              | 63.1                  |
| IL     | Chicago     | 7.14                              | 63.37                 |
| NY     | New York    | 4.83                              | 63.92                 |
| TX     | Austin      | 5.67                              | 63.3                  |
| AZ     | Phoenix     | 5.01                              | 63.24                 |
| NV     | Las Vegas   | 4.95                              | 63.04                 |
| NC     | Charlotte   | 5.27                              | 63.23                 |
| TX     | Dallas      | 4.59                              | 63.29                 |
| CA     | San Diego   | 5.71                              | 63.3                  |

### Output: Population Demographics

| reg<br>ion | city        | pop_total_in_hundred_<br>million | pop_20_29_perc<br>entage | pop_30_39_perc<br>entage | pop_40_49_perc<br>entage | pop_50_59_perc<br>entage | pop_20_59_perc<br>entage |
|------------|-------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| TX         | Houston     | 15.51                            | 14.85                    | 14.4                     | 12.31                    | 12.92                    | 54.48                    |
| TX         | San Antonio | 12.97                            | 14.76                    | 14.28                    | 12.3                     | 12.91                    | 54.25                    |

|    |           |       |       |       |       |       |       |
|----|-----------|-------|-------|-------|-------|-------|-------|
| IL | Chicago   | 11.27 | 14.88 | 14.4  | 12.3  | 12.89 | 54.47 |
| NY | New York  | 7.55  | 15.1  | 14.8  | 12.34 | 12.86 | 55.1  |
| TX | Austin    | 8.96  | 14.81 | 14.35 | 12.32 | 12.9  | 54.39 |
| AZ | Phoenix   | 7.91  | 14.76 | 14.27 | 12.31 | 12.9  | 54.25 |
| NV | Las Vegas | 7.85  | 14.76 | 14.25 | 12.29 | 12.9  | 54.2  |
| NC | Charlotte | 8.34  | 14.8  | 14.32 | 12.3  | 12.92 | 54.35 |
| TX | Dallas    | 7.25  | 14.83 | 14.37 | 12.31 | 12.91 | 54.42 |
| CA | San Diego | 9.02  | 14.85 | 14.42 | 12.33 | 12.93 | 54.55 |

### Output: High Income Ratio

| region | city        | inc_50_60_percentage | inc_60_75_percentage | inc_75_100_percentage | inc_100_125_percentage | inc_125_150_percentage | inc_150_200_percentage | inc_gte_200_percentage | inc_gte_50_percentage | inc_total_in_hundred_million |
|--------|-------------|----------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------------|
| TX     | Houston     | 7.48                 | 9.61                 | 12.7                  | 9.39                   | 6.26                   | 7.57                   | 9.03                   | 62.04                 | 6.17                         |
| TX     | San Antonio | 7.5                  | 9.66                 | 12.74                 | 9.37                   | 6.25                   | 7.45                   | 8.74                   | 61.7                  | 5.15                         |

|        |                       |      |      |       |      |      |      |       |       |      |
|--------|-----------------------|------|------|-------|------|------|------|-------|-------|------|
|        | ton<br>io             |      |      |       |      |      |      |       |       |      |
| I<br>L | Chi<br>cag<br>o       | 7.43 | 9.58 | 12.68 | 9.42 | 6.31 | 7.61 | 9.2   | 62.23 | 4.5  |
| N<br>Y | Ne<br>w<br>Yor<br>k   | 7.14 | 9.22 | 12.35 | 9.42 | 6.27 | 7.97 | 10.85 | 63.22 | 3.04 |
| T<br>X | Au<br>stin            | 7.44 | 9.59 | 12.68 | 9.42 | 6.31 | 7.62 | 9.16  | 62.23 | 3.57 |
| A<br>Z | Ph<br>oen<br>ix       | 7.48 | 9.64 | 12.71 | 9.39 | 6.27 | 7.49 | 8.88  | 61.87 | 3.15 |
| N<br>V | Las<br>Ve<br>gas      | 7.53 | 9.69 | 12.73 | 9.33 | 6.21 | 7.34 | 8.52  | 61.35 | 3.12 |
| N<br>C | Ch<br>arl<br>ott<br>e | 7.48 | 9.62 | 12.7  | 9.4  | 6.28 | 7.53 | 8.94  | 61.96 | 3.32 |
| T<br>X | Dal<br>las            | 7.46 | 9.6  | 12.69 | 9.4  | 6.28 | 7.54 | 9.06  | 62.03 | 2.89 |
| C<br>A | Sa<br>n<br>Die<br>go  | 7.44 | 9.57 | 12.65 | 9.4  | 6.28 | 7.68 | 9.3   | 62.32 | 3.59 |

Question 3 What are the top 10 most popular gym brands in the U.S. based on visit counts?

Goal: Goal: In the second step, after we confirmed the selected city—New York, we need to help the client identify which gym brand to invest in.

Query:

```
-- Top 10 Popular Gyms Across U.S.
select a.brand_name, round(sum(b.raw_visit_counts) / 1e6,2) as
total_raw_visit_counts_in_million
from `hsuehning-fa24-mgmt58200-final.MOD.brands` a
inner join `hsuehning-fa24-mgmt58200-final.MOD.visits` b on a.safegraph_brand_id =
b.safegraph_brand_ids
where a.top_category = "Other Amusement and Recreation Industries"
and a.sub_category = "Fitness and Recreational Sports Centers"
group by 1
order by total_raw_visit_counts_in_million desc
limit 10
```

Question 3 Result:

| brand_name           | total_raw_visit_counts_in_million |
|----------------------|-----------------------------------|
| Planet Fitness       | 7.71                              |
| CrossFit             | 5.0                               |
| Anytime Fitness      | 3.29                              |
| LA Fitness           | 2.1                               |
| Orangetheory Fitness | 1.95                              |
| 24 Hour Fitness      | 1.26                              |
| Lifetime Fitness     | 0.98                              |
| Club Pilates         | 0.9                               |
| Snap Fitness         | 0.85                              |
| Gold's Gym           | 0.84                              |

Question4: Which gym brands present opportunities for expansion or market growth in New York City?

Goal: With the city for investment and a list of gym brands identified, the next step is to select the most suitable option from the list for our client.

Query:

-- Filter Top 10 Popular Gyms to Check if Located in NY

```
select d.region, d.city, a.brand_name, sum(b.raw_visitor_counts) as raw_visitor_counts, count(distinct a.safegraph_brand_id)
as safegraph_brand_cnt

from `hsuehning-fa24-mgmt58200-final.MOD.brands` a

inner join `hsuehning-fa24-mgmt58200-final.MOD.visits` b on a.safegraph_brand_id = b.safegraph_brand_ids

inner join `hsuehning-fa24-mgmt58200-final.MOD.cbg_demographics` c on b.poi_cbg = c.cbg

inner join `hsuehning-fa24-mgmt58200-final.MOD.places` d on a.safegraph_brand_id = d.safegraph_brand_ids

where a.top_category = "Other Amusement and Recreation Industries"

and a.sub_category = "Fitness and Recreational Sports Centers"

and a.brand_name in ("Planet Fitness", "CrossFit", "Anytime Fitness", "LA Fitness", "Orangetheory Fitness", "24 Hour
Fitness", "Lifetime Fitness", "Club Pilates", "Snap Fitness")

and d.region = "NY"

and d.city = "New York"

group by 1,2,3

order by raw_visitor_counts desc, safegraph_brand_cnt asc

limit 10;
```

Question 4 Result:

| region | city     | brand_name           | raw_visitor_counts | safegraph_brand_cnt |
|--------|----------|----------------------|--------------------|---------------------|
| NY     | New York | CrossFit             | 25425603           | 1                   |
| NY     | New York | Planet Fitness       | 24245964           | 1                   |
| NY     | New York | Orangetheory Fitness | 4245000            | 1                   |

|    |          |                  |         |   |
|----|----------|------------------|---------|---|
| NY | New York | Club Pilates     | 1223380 | 1 |
| NY | New York | Lifetime Fitness | 634848  | 1 |
| NY | New York | 24 Hour Fitness  | 256568  | 1 |