

# **GYM DATA ANALYSIS REPORT**

## **BY**

### **AKPOTU EMMA ELOHO**

## **Introduction**

In the vibrant world of fitness and wellness, understanding gym users' behavior is crucial for enhancing service delivery and maximizing engagement. This synthetic dataset, comprising four CSV files, simulates gym activity across 10 different locations. It encompasses user details, gym attributes, check-in history, and insightful information about various subscription plans. The dataset provides a rich foundation to uncover valuable insights about the gym data. By delving into this dataset, we can better understand behavior patterns and preferences among gym members, ultimately fostering data-driven decisions for gym management and marketing strategies.

## **DATASET OVERVIEW**

The dataset encompasses a comprehensive collection of gym information, comprising 300,000 rows and 19 columns. It serves as a rich resource for analyzing user behaviors and gym performance. Key variables within the dataset include user demographics, gender, subscription plans, feature types, monthly pricing, sign-up dates, and specific gym characteristics such as location, workout types, facilities, and check-in histories. This dataset provides valuable insights into popular workout types and overall gym performance metrics, allowing for a nuanced understanding of user engagement and preferences. Covering various U.S. demographics, such as Los Angeles, Philadelphia, Dallas, Houston, New York, Phoenix, San Antonio, San Diego, San Jose, and Chicago, it facilitates the exploration of gym-specific trends across different regions. This depth of information positions the dataset as an essential tool for deriving actionable insights and enhancing fitness service offerings.

## **OBJECTIVES**

The objectives of this analysis are designed to leverage the synthetic gym dataset for meaningful insights and enhanced understanding of user behavior and gym performance. Specifically, we aim to:

1. Identify and visualize the various workout types present in the dataset utilizing Power BI's visualization tools.
2. Determine which month recorded the highest number of gym customers, providing insights into seasonal trends in gym attendance.
3. Analyze the distribution of gender among users to see whether there are more male than female members in the dataset.
4. Identify the gym location with the highest user activity, revealing preferences for specific workout environments.
5. Ascertain which subscription plan boasts the highest number of subscribers, informing potential marketing and service strategies.
6. Offering insights into the age demographics of the clientele.
7. Highlight the location where users expend the highest number of calories, indicating trends in workout intensity and popularity.

Collectively, these objectives will provide a comprehensive analysis of gym user engagement and preferences, contributing to strategic decision-making in gym management and service enhancement.

## DATA PROCESSING

**Data Cleaning:** The dataset was cleaned using Power BI to ensure data quality by checking for duplicates and empty spaces. Additionally, the first names and last names columns were merged into a single column labeled "Names," and the first row was utilized as the header for the dataset.

**Data Modeling:** A relationship structure was established within the dataset, which comprises four tables, each representing different aspects of gym data. These relationships facilitate cohesive analysis across the tables.

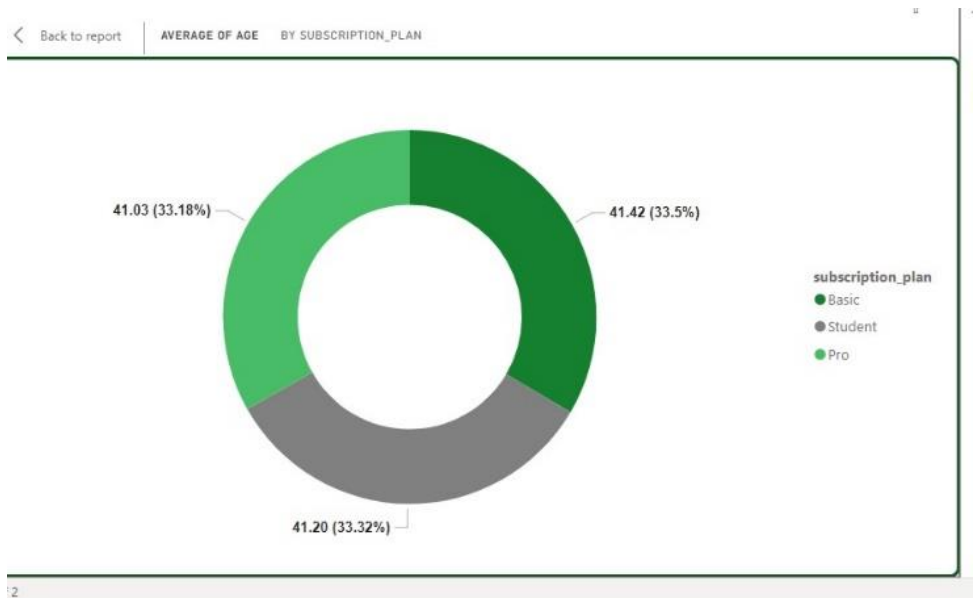
**Data Analysis:** A dashboard was developed to visualize gym performance metrics and other analyses. This provides a comprehensive overview of the data insights. Users can easily interpret and analyze the gym's performance through the visual elements.

## INSIGHTS

**Age:** The analysis revealed a diverse age demographic within the dataset, spanning from 19 to 67 years, and inclusive of various genders, with the minimum age recorded at 18 and the maximum at 64. Overall, the average age of participants in the dataset is 41 years, showcasing a

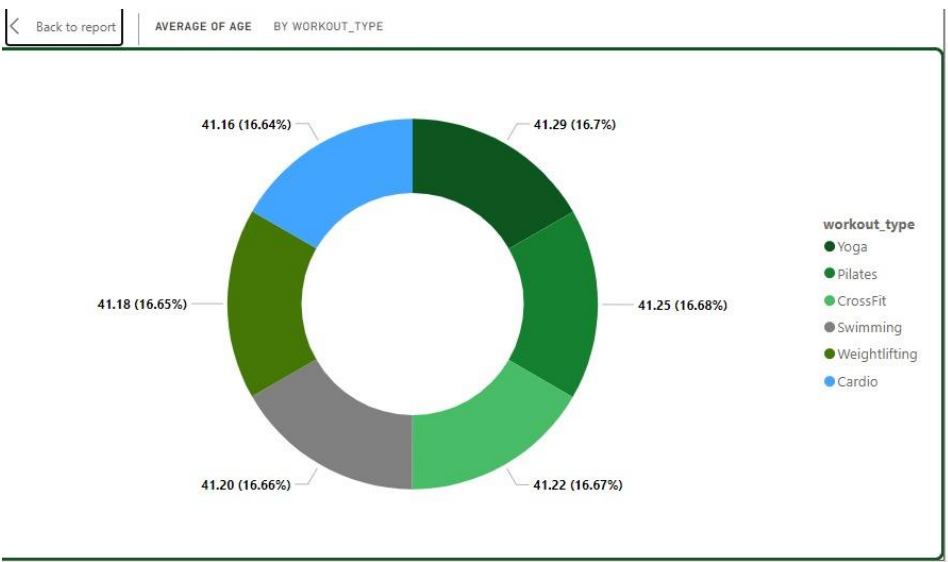
balance between younger and older individuals. This analysis also explored subscription plans and workout types in relation to age. The analysis highlighted that the gym attracts a vibrant mix of young adults and mid-life individuals, with older adults also actively engaged in various fitness activities. This diverse demographic creates a welcoming environment that encourages all age groups to pursue healthy lifestyles together.

The analysis shows that individuals aged 41 and above predominantly favor the basic



subscription plan, indicating it aligns well with their needs and lifestyle. To leverage this insight, targeted marketing campaigns should be developed to highlight the benefits and value of the basic plan specifically for this demographic.

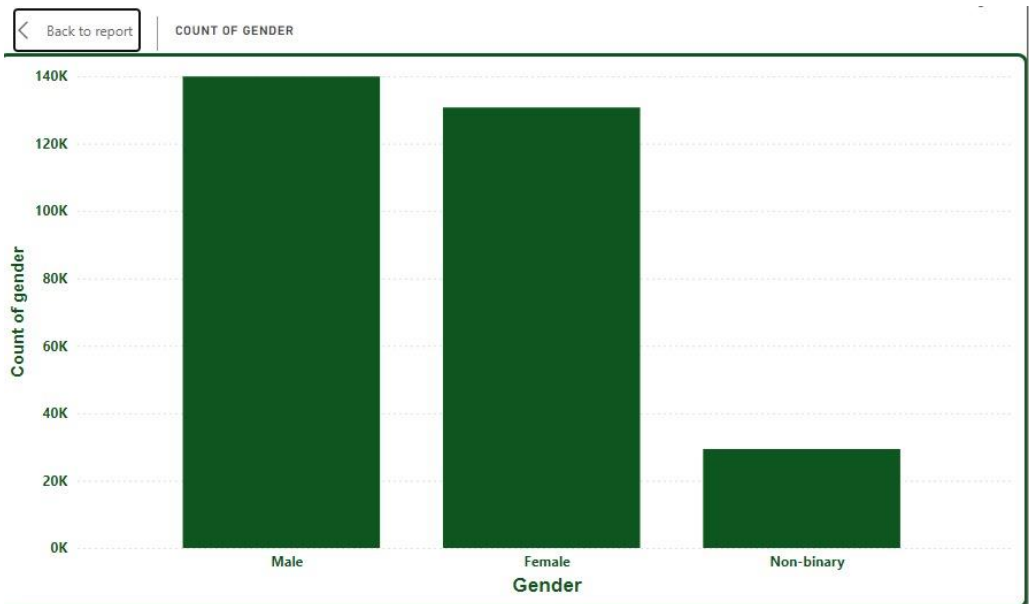
The analysis indicates that yoga is the most preferred workout among gym users aged 41 and



above, as they prioritize flexibility, balance, and core strength. This trend reflects older adults' desire to maintain mobility and prevent injury while also emphasizing mental health benefits like reduced stress and anxiety. Recognizing yoga's popularity can guide gyms in tailoring marketing strategies and promotional efforts to attract this demographic.

## GENDER

The gym's demographic analysis by gender shows a balanced distribution, with 139.92k male

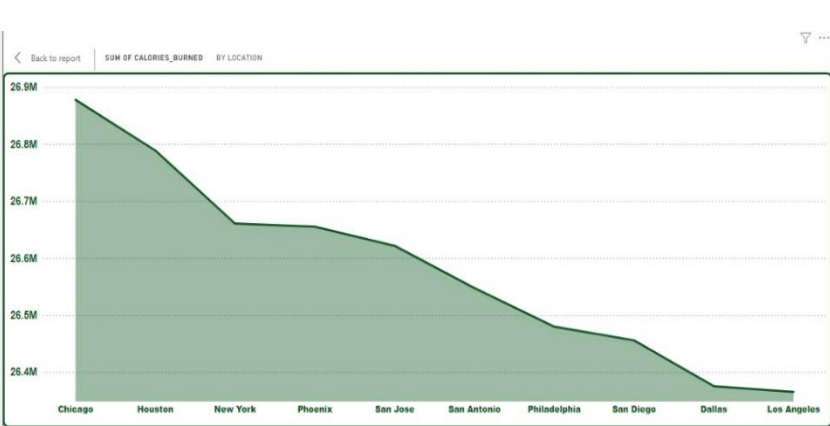
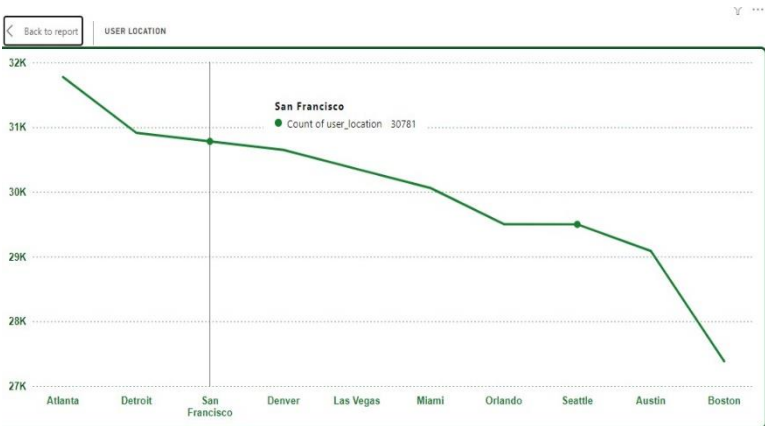


members (46.64%), 130.72k female members (43.57%), and 9.79% identifying as non-binary. These figures indicate a slight male majority, closely followed by female participation, while the non-binary representation is noteworthy and underscores the gym's inclusive environment. To capitalize on this diversity, marketing strategies should promote gender-

inclusive programs and facilities, showcasing tailored offerings that cater to the unique needs and preferences of all members to enhance engagement and retention across demographics.

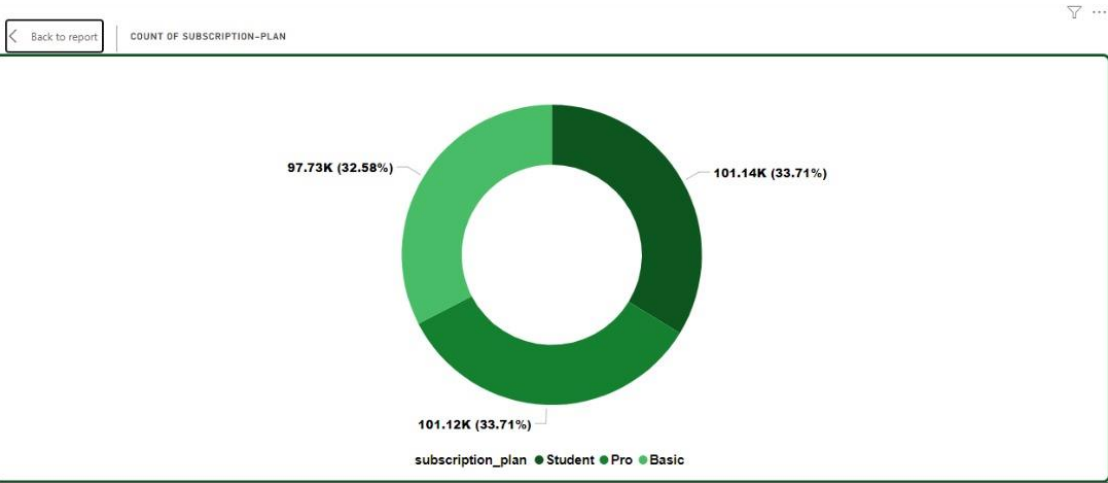
## LOCATION

An analysis of the dataset reveals that Atlanta leads with 31,800 customers, contrasting with Boston's lower patronage of 27,400, highlighting significant variations in gym engagement across locations. Additionally, Chicago boasts the highest average calories burned per gym visit, indicating better utility and user engagement, while Los Angeles ranks lowest in this metric. To leverage these insights, marketing strategies should focus on promoting Chicago's efficiency and success stories while exploring tailored initiatives to boost engagement in underperforming markets like Los Angeles and Boston, ensuring targeted resources are allocated to enhance overall member experience.



SUBSCRIPTION PLAN

Analysis of subscription popularity revealed that the student plan emerged as the most favorable option, attracting approximately 101,000 subscribers, significantly outpacing the Pro

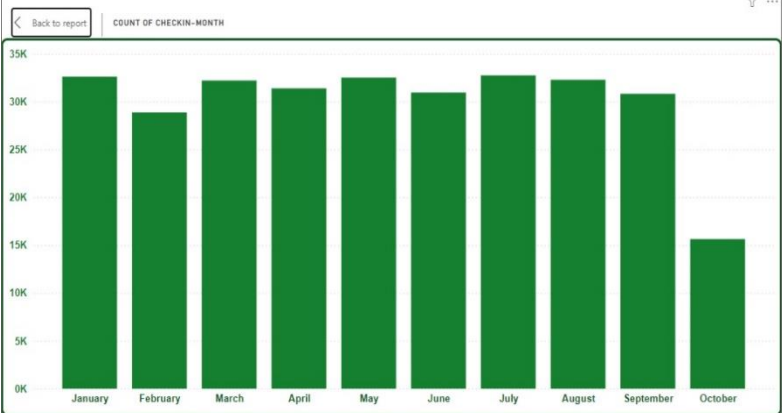
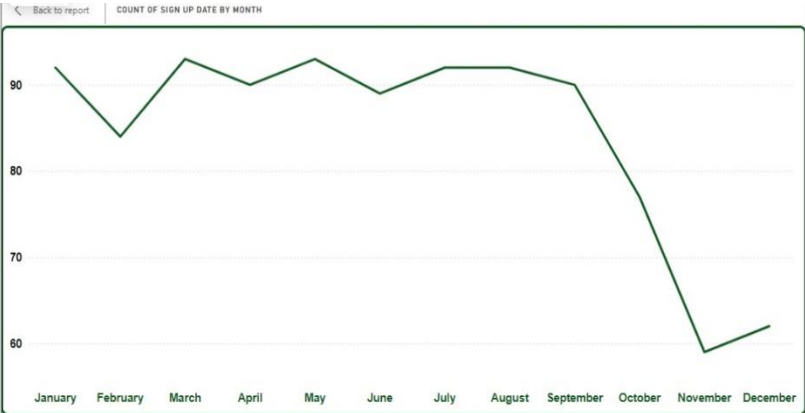


plan and the less popular Basic plan. This trend indicates a strong preference among gym members for affordable, student-

oriented offerings, suggesting that value-driven packages resonate well within this demographic. To capitalize on this trend, marketing strategies should emphasize the benefits of the student plan, while also exploring potential enhancements for the Pro and Basic plans to broaden appeal and boost overall subscription rates across all member segments.

MONTHLY PARTICIPATION METRICS

Analysis of monthly attendance frequency revealed that July was the peak month, attracting 32,700 members, while October experienced a significant drop to just 15,600 attendees. Additionally, sign-up rates peaked in March and May, each bringing in 93,000 new members, whereas November saw the lowest sign-up rates at 59,000. This seasonal pattern highlights the need for an effort targeted that leverages these peak periods through special promotions, engaging content, and community-driven events to sustain member interest and participation throughout the year, particularly during the off-peak months.



## RECOMMENDATION

**Demographic-Specific Marketing Initiatives:** The strategy aims to enhance engagement and attract individuals aged 41 and older through targeted marketing initiatives. It focuses on promoting a basic subscription plan that aligns with older adults' lifestyles and highlights the benefits of yoga for flexibility, balance, and core strength, while addressing mobility and injury prevention concerns.

- ❖ Mental health benefits, particularly stress reduction, are also emphasized. Promotional activities will be tailored to this demographic's preferences, and organizing wellness workshops can foster community and participation. Feedback mechanisms will help refine programs and marketing strategies. Given that the average gym member is 41, there is a significant middle-aged demographic that necessitates targeted engagement and offers focused on stress relief and longevity in fitness. Additionally, strategies to draw in younger members (under 40) through flexible subscription plans and social workout events could further increase participation and diversify the membership pool.

**Tailored Programs and Inclusive Offerings:** The gym has a slight majority of male members (46.64%) compared to female members (43.57%) with a notable non-binary membership of 9.79%. To better engage these groups, the gym should focus on gender-specific classes. It is crucial to implement inclusive programs and establish gender-neutral spaces to create a welcoming environment for all. Expanding the range of workout options, particularly by adding classes for women and non-binary individuals, can further enhance the gym's inclusivity.

- ❖ To create a welcoming environment for all gym members, it is crucial to implement inclusive programs and establish gender-neutral spaces. This includes expanding workout options with classes for women and non-binary individuals, ensuring locker rooms and restrooms are gender-neutral, and adding privacy features and inclusive signage. Additionally, creating social areas like lounges will promote interaction among members. With 9.79% of members identifying as non-binary, targeted strategies such as support groups and an anonymous feedback system are necessary to engage this demographic and improve their gym experience.
- ❖ To create an inclusive atmosphere, it's essential to provide ongoing training for staff on understanding and supporting the diverse needs of members. Regular workshops on gender inclusivity and sensitivity will help instructors and staff foster a welcoming environment. Encouraging staff participation in community outreach programs will promote fitness and wellness among diverse groups, strengthening connections with various demographics. By focusing on inclusivity and diversity, these strategies can enhance member engagement and retention, reflecting the gym's commitment to building a supportive community where all members feel valued and empowered.

**Enhance Membership Options and Monthly Engagement:** Analysis of gym attendance and subscription trends reveals significant seasonal patterns, with July attracting the highest member attendance of 32,700, while sign-up rates peaked in March and May at 93,000 new members. The

popularity of the student plan has emerged strongly with approximately 101,000 subscribers, highlighting a demand for affordable, value-driven options. To sustain year-round engagement and boost overall subscriptions, focused marketing efforts should emphasize leveraging peak attendance months and enhancing the Pro and Basic plans while highlighting the benefits of the student plan should focus on leveraging peak attendance months and enhancing the Pro and Basic plans while emphasizing the student plan's benefits.

- ❖ To capitalize on the student plan's popularity, the gym should enhance targeted marketing that emphasizes affordability and flexibility, leveraging testimonials from current subscribers and forming partnerships with local colleges for promotions. The Pro plan can be improved by adding perks like personal training and direct marketing to dedicated fitness professionals, while the Basic plan should cater to budget-conscious members through group classes and flexible options. Cross-promotions and free workshops can showcase the value of all plans, and gathering feedback through surveys will ensure offerings meet member needs. Introducing referral and loyalty programs can further boost engagement and community, ultimately increasing subscriptions and member satisfaction.
- ❖ To enhance member engagement, the gym should implement targeted promotions during peak months, such as July, including referral bonuses and special fitness class discounts. Creating engaging content like fitness challenges and community events can encourage involvement and maintain excitement. To address attendance drops from July to October, themed workouts and member appreciation events should be organized. Utilizing data from peak sign-up months, the gym can tailor marketing campaigns to replicate successful strategies year-round and foster a sense of community through collaborations with local businesses.

**Location-Based Marketing Strategy:** Atlanta has the highest customer base at 31,800, while Chicago shows the best gym engagement with the highest average calories burned per visit. To capitalize on these insights, marketing should highlight Chicago's success and develop strategies to improve engagement in underperforming markets like Los Angeles and Boston.

- ❖ Promote Chicago's gym efficiency and success stories, emphasizing the high average calories burned per visit to attract new members and enhance engagement. Develop targeted marketing strategies for Los Angeles and Boston to boost membership and engagement. This could include special promotions, community events, and partnerships with local influencers.
- ❖ Regularly analyze customer engagement metrics across locations to identify trends and areas for improvement, ensuring resources are allocated effectively to enhance the member experience. Foster a sense of community in all locations by hosting events,

challenges, and workshops that cater to local interests, which can help improve participation and retention in underperforming markets.

## CONCLUSION

This analysis offers a data-driven approach to optimize gym operations and boost member satisfaction by identifying key factors. Implementing targeted strategies based on these insights will enhance service offerings, increase member loyalty, and ensure long-term growth in a competitive market. In conclusion, the extensive synthetic dataset comprising user demographics, gym attributes, and activity histories across ten locations offers invaluable insights into gym member behavior and preferences. By analyzing this information, gym management can make informed, data-driven decisions to enhance service delivery and optimize marketing strategies, ultimately improving member engagement and overall gym performance. The dataset's breadth allows for regional trend analysis, making it a vital resource for tailoring fitness offerings to diverse user needs across various U.S. demographics.

