

Virtuagym Challenge

Overview

This document outlines my general approach to the data challenge and how I would adapt it based on feedback from gym managers. The goal was to create a useful tool to help managers understand how well leads convert into paying members, and to support staff performance evaluation.

My Approach

Understanding the Problem:

The focus was on tracking leads and seeing how they move through the funnel to become paying members. I designed a simple data model that includes:

- Leads: basic info, creation and conversion dates
- Staff: to track who handled each lead
- Club: to group leads and staff by gym
- Member and Subscription: for converted leads and revenue info

Database Design & API Integration:

I created the database using SQLAlchemy and Flask, and set up a lightweight backend to handle data flow. I wrote a script to call the API and populate the database with 3 months of data, including 30+ leads and 3 staff members. SQLAlchemy made it easy to map models and manage relationships cleanly.

Key Metrics (Current Implementation):

- 1) Lead-to-Member Conversion Rate per Staff (Last 3 Months):
- 2) Average Revenue per Conversion (% of Top Staff):
- 3) Revenue Share per Staff (% of Total):

Thoughts

The `creation_date` is most relevant when analyzing lead acquisition trends and initial engagement, as it marks the moment a lead first interacts with a staff member. On the other hand, the `conversion_date` provides the most value when evaluating staff performance and operational efficiency, as it represents the moment a lead becomes a paying member with the staff's assistance. In my implementation, I used `creation_date` to denote when the lead first met the staff, and `conversion_date` as the point when the lead committed to membership and was successfully onboarded. I also aligned `conversion_date` with the subscription start date, since it logically reflects when the membership begins. To assess the effectiveness of individual staff members, I used `conversion_date` to track how quickly and successfully they convert leads. This was quantified using metrics such as Lead-to-Member Conversion Rate per Staff, Revenue Share per Staff (% of Total), and

Average Revenue per Conversion (% of Top Staff), providing a comprehensive view of each staff member's contribution and performance. Each of the metrics I used provides gym managers with targeted insights to evaluate and optimize staff performance. The **Lead-to-Member Conversion Rate per Staff** shows how efficiently each staff member turns leads into paying members, this helps managers identify who consistently closes deals and who might need additional support or training. The **Revenue Share per Staff (% of Total)** indicates how much revenue each staff member contributes relative to the team, allowing managers to balance lead distribution or reward top earners. Lastly, **Average Revenue per Conversion (% of Top Staff)** reveals how valuable each conversion is on average for a staff member, benchmarking them against the highest-performing colleague. This helps managers distinguish between staff who simply convert more leads and those who bring in higher-value customers, informing decisions like commission structures or coaching focus.

Improvement Plan to make

To improve the analysis and provide even more actionable insights to gym managers, I plan to add metrics like **Average Time to Convert**, which will show how quickly each staff member is able to convert leads into paying members. This will help identify delays in the sales process and highlight staff who are both efficient and effective. Another planned addition is **Conversion by Lead Source**, which will help managers understand which marketing channels or referral sources are bringing in leads that actually convert, enabling smarter investment in lead generation. Based on potential feedback scenarios such as managers saying "I don't understand this metric" or "I want to filter by source or day" I also plan to improve metric labeling, add tooltips for clarity, and implement filters for day of the week, lead source, and staff member to make the dashboard more intuitive and personalized for managerial use.