

The Health Club and Fitness Industry: Market and Process Analysis

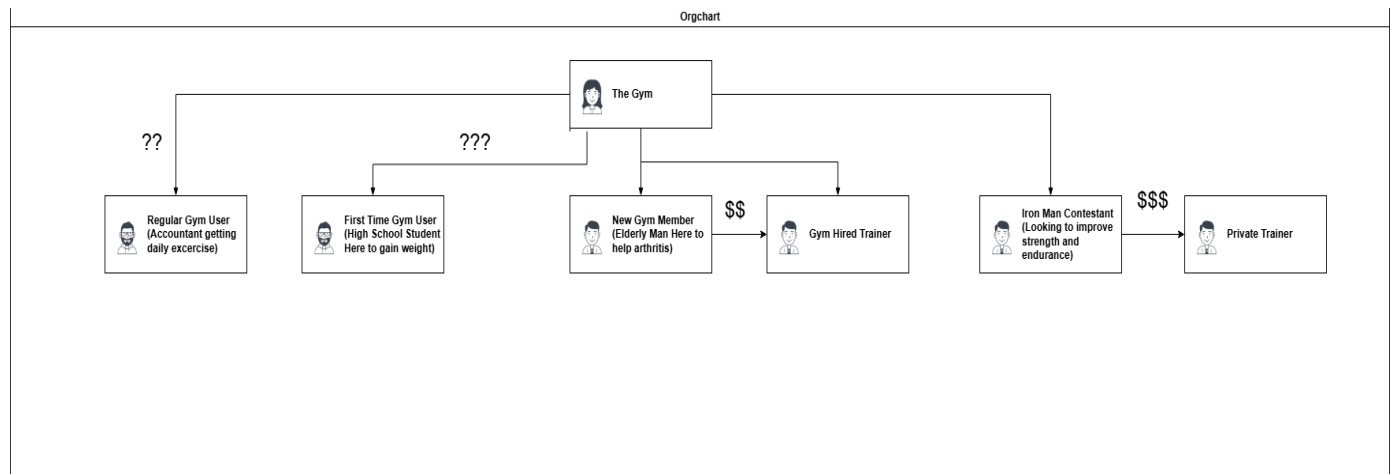
Sean Powell
CIS 3100.01 Business Systems
Professor Stefan Bund

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Organizational Chart

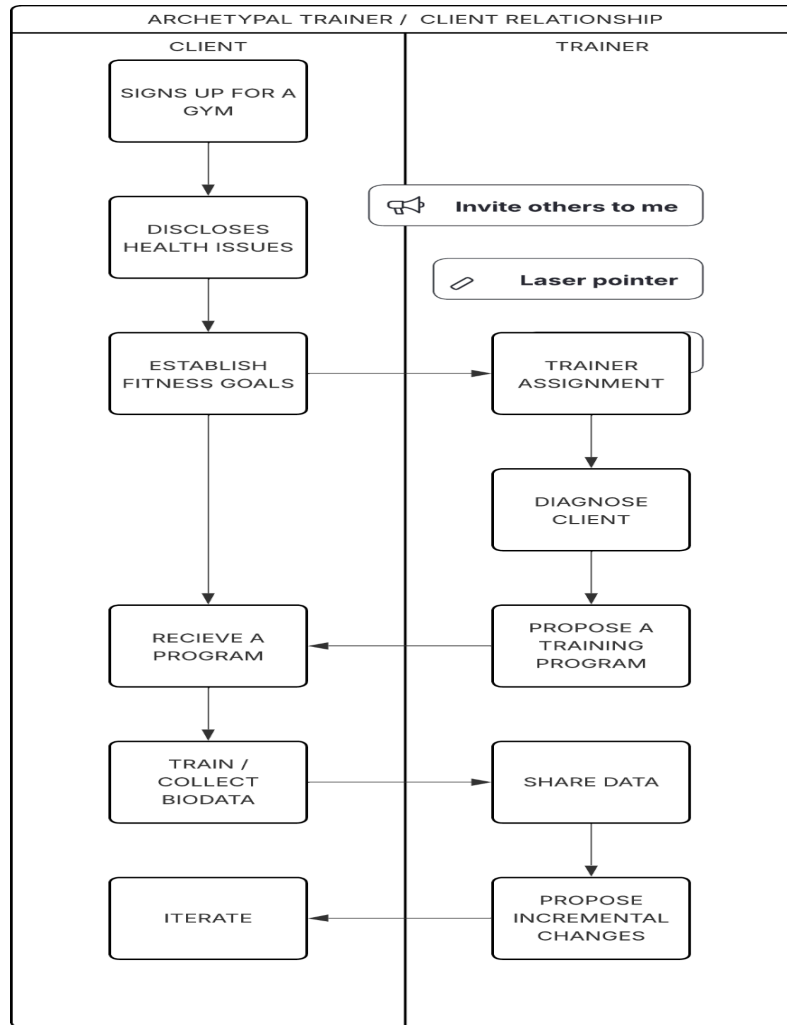
The organizational analysis illustrates the diverse demographics within the gym community. In addition to physical demographics the community also shares a wide variety of goals and needs to achieve them. Furthermore, there are discrepancies in spending capabilities among consumers.

There are groups of people who need guidance but cannot or will not spend money on a trainer that is either provided by the gym or privatized. These consumers often seek everything they need on the internet or attempt to find a fitness app that aligns with their needs. Another group that can be identified are those that are able to spend the money on a trainer which typically they are able to interact with during their paid session. After the paid session the consumer must apply the knowledge from that session during lifts throughout the rest of the week without the guidance of their trainer until the next session.



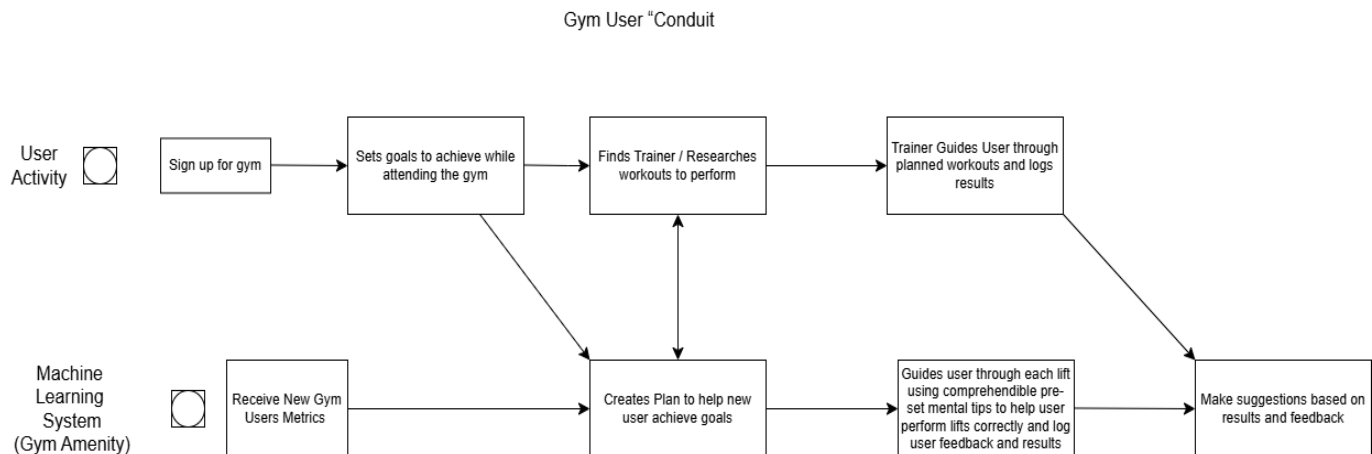
Business Process Model and Notation

The BPMN for the health club and fitness industry displays the general transactions between users and their process when engaging with a gym. Once the consumer is established and signed up for a gym a consumer that needs guidance will immediately look for a trainer to start working with. The trainer's primary role is to understand the goals and capabilities of the client. Once the goals and capabilities are understood the trainer will need to create an efficient first draft training program that will help the client see progress and eventually reach their goals. The program will then be implemented into each training session where the trainer will record the clients data to track the advancement of the client.



Activity Diagram

Instead of the typical process that a consumer goes through when signing up for a gym, finding a trainer, and establishing a workout plan. The machine learning system will create a plan directly from the input metrics of the user like their height, weight, and specific goals. The machine learning system will act as a portable pocket held trainer that is available at all times and can be asked any specific question as the machine's knowledge is specialized in health and fitness. Typical questions that can be answered include; pre-set mental cues, general form visualization tips, workout plans, exercises catered to help users achieve personal goals, etc. The machine learning system will also have the capability to suggest changes periodically based on the users goals and progress towards those goals.



User Interface/User Experience (UI/UX) Design

The primary UI/UX goal is to engage the user, beginning with account creation. The user will input the metrics needed for the machine learning system to create workout plans tailored to them to help them reach their fitness goals. The homepage will motivate users to return by holding them accountable for their weekly and monthly check-ins at the gym. There will be multiple tabs the user can navigate through.

One section will be the AI Trainer section, which features an open-ended chat area where the user can interact with the ai trainer. This section will also be where the user will receive pre-set mental cues, record results, and receive post-set feedback. The workouts tab will be a library of workouts the user can select to receive tips and record results. The plans tab will have generated workouts tailored to the user based on their goals. This tab will have different workouts for different body parts or different types of training. Finally, the progress tab will be a significant source of motivation for the user where they will be able to view multiple charts. These charts will be based on calories burned per workout, or total volume lifted per session. Along with charts it will also have a personal records section where the user can track each PR and compare it to other users.

Welcome To Muscle Mind

Sign in:
Create Account:
[Trainer](#) [Lifter](#)

Create Account (Lifter)

Name:
Age:
Height:
Weight:
Gender:
Fitness Goals:
E-mail:

Welcome, (Name)

Weekly Check ins: X/7

Suggested Workout Plan: (For the day based on previous lift)

[Trainer](#) [Workouts](#) [Plans](#) [Progress](#)

Trainer

Chat with muscle mind:

Workouts

Select Current Gym Location:

Bench Press

Deadlifts

Lateral Raises

Plans

Glute Builder

Endurance Training

Full Body Strengnth

Arm Day

Progress

Calories Burned (Charts)

Personal Records
Bench Press: 315 lbs
Deadlift: 250 lbs
Squat: 395 lbs
Bicep Curls: 90 lbs