

# MUSCLEHUB

A/B Test for Fitness Center



# Overview

Typical Sign-up process for new members:

1. Take a fitness test with a personal trainer
2. Fill out the application for the gym
3. Send in the payment for the first month's membership



# Definitions

- Visitor - Potential customer that visited MuscleHub
- Applicants - Potential customers who did a filled out an application
- Member - Customers who paid for the membership



# Project Objectives

Answer whether or not an initial fitness test for new visitors was impacting the follow-through rate of visitors.

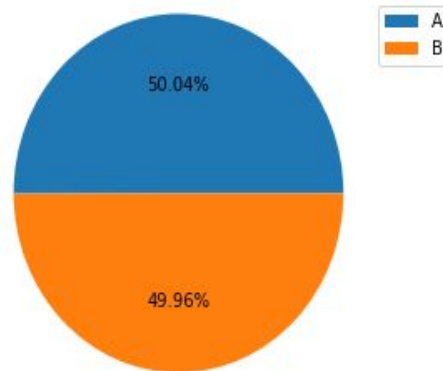




# Dataset Procedure

New visitors were separated into two roughly equal size groups:

- Group A - Takes the personal fitness test with a trainer.
- Group B - Skips the fitness test and proceeds straight to application.





# Analysis

Data was analyzed in three hypothesis tests:

1. Percentage of visitors who apply in each group.
2. Percentage of applicants who purchased a membership in each group.
3. Percentage of visitors who purchased a membership in each group.



# Hypothesis Test

All Percentages were analyzed with a Chi Squared test :

- Chi Square test is used because data is Categorical and comes from 2 datasets:
  - “Purchased Membership” vs. “Not Purchased Membership”, “Applied” vs. “Not Applied”.
  - 2 datasets are Group A and Group B.
- Resultant P-Value from Chi Squared weighed against 5% threshold to reject null hypothesis:
  - $P\text{-Value} < 5\% \rightarrow$  Rejected null hypothesis.
  - $P\text{-Value} > 5\% \rightarrow$  Null hypothesis not rejected.



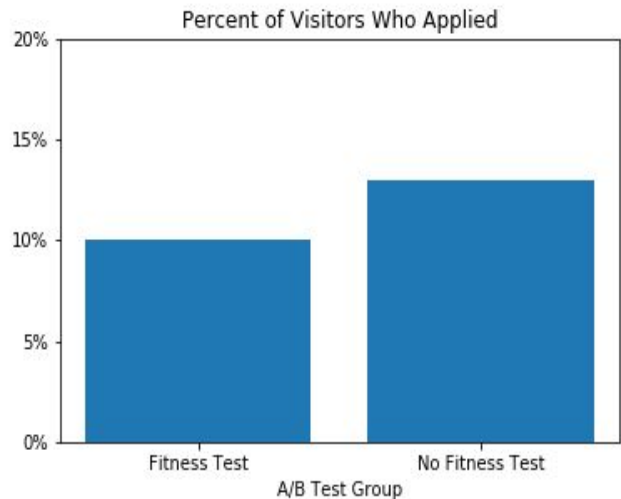
# Percentage of Visitors Who Applied

## Results

- Visitors from Group A applied 9.98% of the time.
- Visitors from Group B applied 13% of the time.

## Hypothesis Test

- There is a significant difference between visitors from Group A and B.
- Resulting P-Value: 0.096%
- P-Value threshold: 5%
- Group B visitors are more likely to apply.







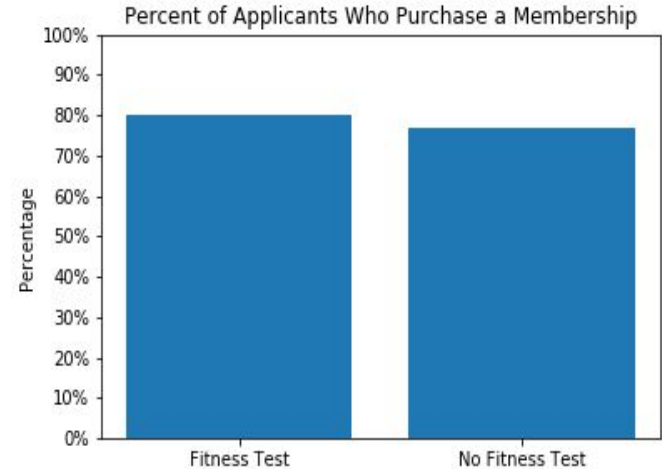
# Percentage of Applicants Who Purchased Membership

## Results

- Applicants from Group A purchased 80% of the time.
- applicants from Group B purchased 76.92% of the time.

## Hypothesis Test

- There is no significant difference between applicants from Group A and B.
- Resulting P-Value: 43.26%
- P-Value threshold: 5%
- Group B applicants are not less likely to purchase.





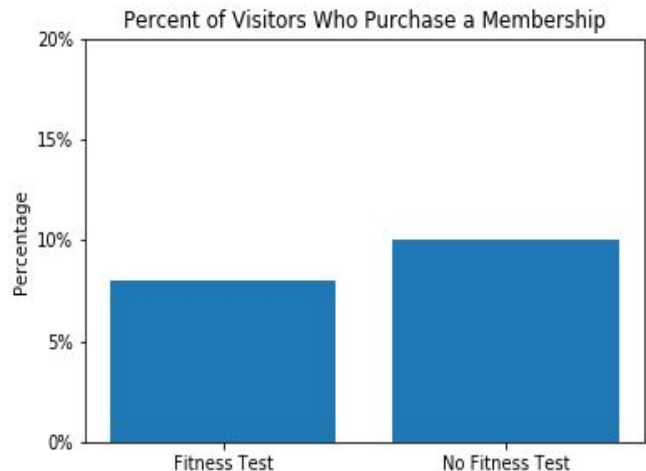
# Percentage of Visitors Who Purchased Membership

## Results

- Visitors from Group A purchased 7.99% of the time.
- Visitors from Group B purchased 10% of the time.

## Hypothesis Test

- There is a significant difference between applicants from Group A and B.
- Resulting P-Value: 1.47%
- P-Value threshold: 5%
- Group B applicants are more likely to purchase a membership.





# Summary of Qualitative Data

1. Customers might see a gym trainer offering an initial fitness test as a salesman instead of someone trying to help them achieve their fitness goals.
2. Customers might be intimidated by having to do a fitness test right away.
3. Customers are more comfortable to sign up if there are no signs of a fitness test.



# Recommendations

1. Remove the fitness test from the signup process.
2. Offer the fitness test as an option for customer who are indecisive about whether they want to join or not. To reduce the fear of a fitness test, make it less intense and give the customer a workout plan to follow after the test is done.