

A/B Testing

# MuscleHub Fitness Test

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## A/B Test Overview

- The goal is to identify whether having customers take a fitness test prior to the application process impacts the customer conversion rate.
- Customers were divided into two groups:
  - Group A – Customers given a fitness test prior to applying
  - Group B – Customers moved straight to the application process
- We explored three KPIs to find an answer
  - Applications completed out of Visitors by group
  - Memberships converted out of Applicants by group
  - Memberships converted out of Visitors by group



# Summary



Visitor, fitness test, application and purchase data records were joined on email and first/last name, creating a list of 5,000 sampled customers.



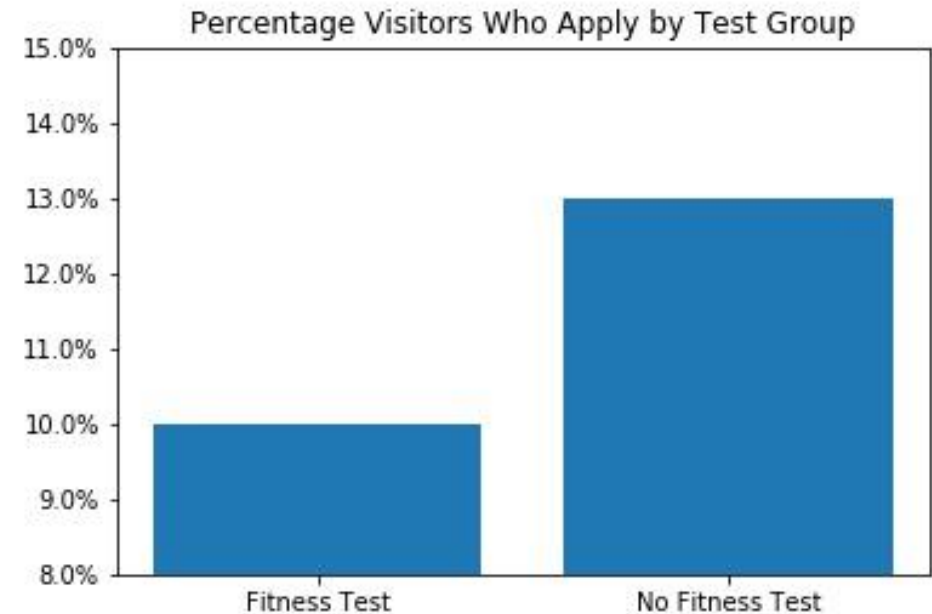
Each record on the joined table details the customer journey, with 2,504 in Group A and 2,500 in Group B.



Because each record is grouped into multiple categories, the Chi Squared test was chosen to determine statistical significance of the results.

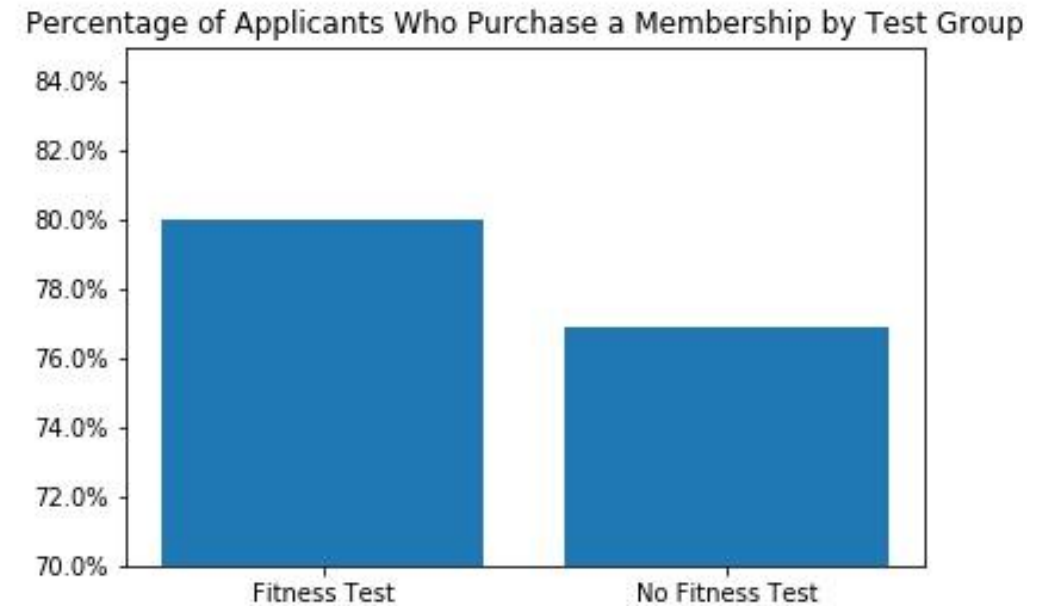
# Hypothesis Test Results

- Applications filled out of visitors by group
  - 9.94 % of Group A Visitors filled out an application
  - 13% of Group B Visitors filled out an application
  - With a P-Value of 0.0009647827600722304, the results are significant and the null hypothesis is rejected.



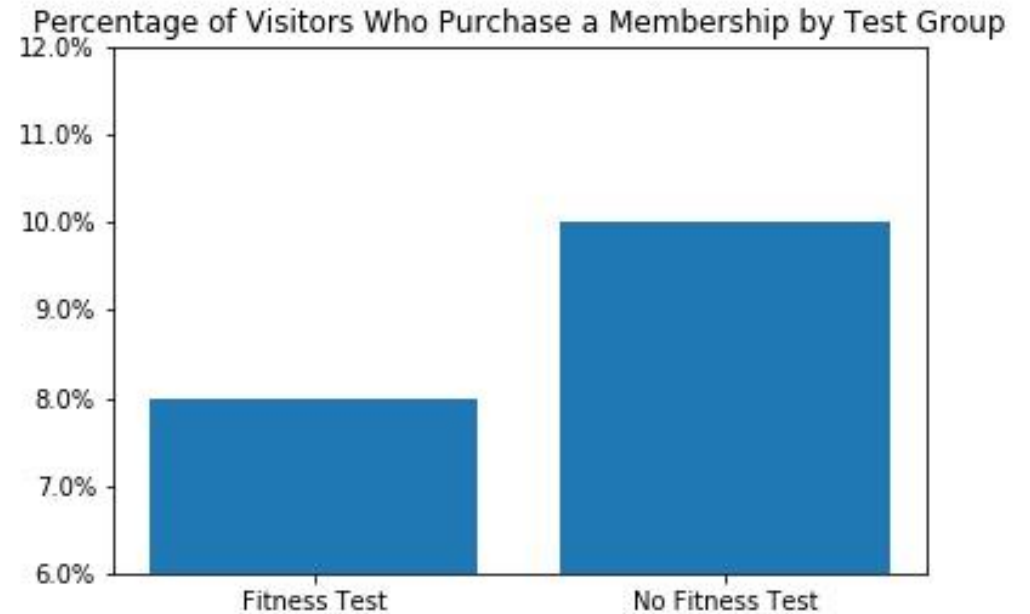
# Hypothesis Test Results Cont.

- Memberships converted out of Applicants by group
  - 80 % of Group A Applicants purchased a membership
  - 76.92% of Group B Applicants purchased a membership
  - With a P-Value of 0.43258646051083327, the results are insignificant we cannot reject the null hypothesis.



# Hypothesis Test Results Cont.

- Memberships converted out of Visitors by group
  - 7.99 % of Group A Visitors purchased a membership
  - 10% of Group B Visitors purchased a membership
  - With a P-Value of 0.014724114645783203, the results are significant and the null hypothesis is rejected.



# Reviews

Of the reviews received, those that were given the fitness test mostly reacted negatively, while those that were not given a fitness test reacted positively to the lack of pressure.



# Recommendation

- Make the Fitness Test optional.
  - While some customers reacted positively to the fitness test, they do not account for the majority of the customer base
  - Allow your customers to make their decision about taking the test to remove the pressure and intensity they feel when taking it.

