

# MuscleHub A/B Test



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Capstone Project  
04/09/2018

# Objectives

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- ❖ Increase membership at MuscleHub.
- ❖ Determine the effectiveness of the preliminary fitness test.
- ❖ Analyze process for new members.

# A/B Test Design

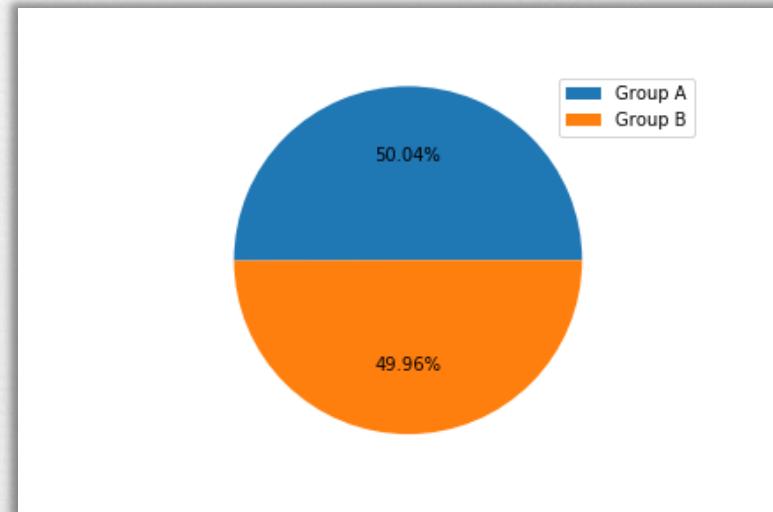
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Visitors to MuscleHub follow a three-step process to join:

- ❖ Take a fitness test
- ❖ Apply for membership
- ❖ Pay for first month

MuscleHub randomly selected half

of new visitors to skip step 1.



Group A participated in the fitness test. Group B did not.

# Null Hypothesis

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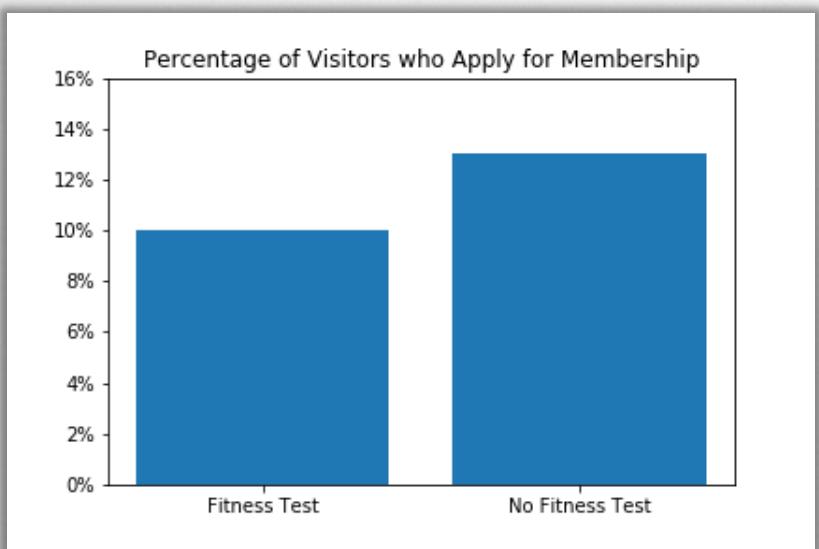


“Participation in a fitness test does not affect whether a new visitor will choose to join MuscleHub.”

Using a 5% significance level, I will reject the null hypothesis if the hypothesis tests return a p-value < 0.05.

# Visitors Who Apply

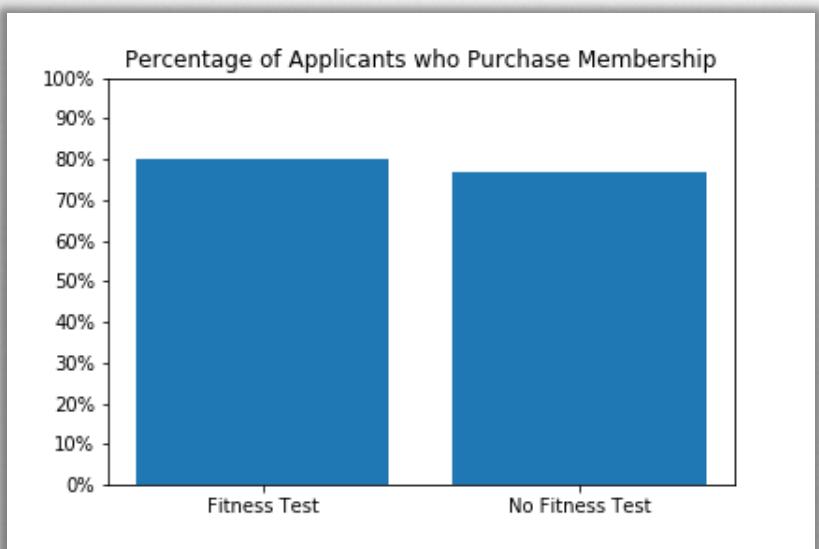
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- ❖ Of all visitors, those in Group B are more likely to apply for membership.
- ❖ I used a Chi Square test because the data compares two types of categories.
- ❖ P-Value = 0.000965
- ❖ I reject the null hypothesis

# Applicants who Purchase

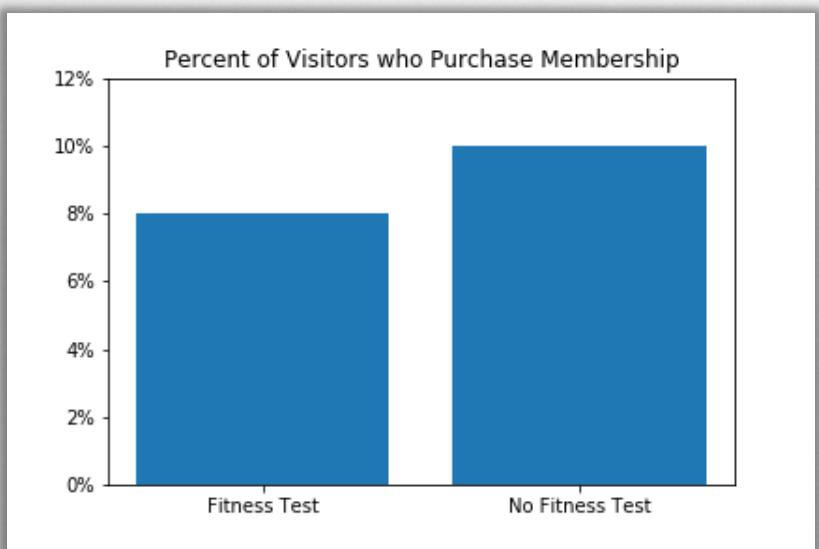
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- ❖ Of all applicants, those in group A are more likely to purchase a membership.
- ❖ I used a Chi Square test because the data compares two types of categories.
- ❖ P-Value = 0.432586
- ❖ Not statistically significant

# Visitors who Purchase

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- ❖ Of all visitors, those in Group B are more likely to purchase a membership.
- ❖ I used a Chi Square test because the data compares two types of categories.
- ❖ P-Value = 0.014724
- ❖ I reject the null hypothesis

# Interview Responses

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- ❖ Interviews in Group A were split in their reactions to the fitness test. One visitor was excited while another was discouraged.
- ❖ Both interviews from Group B appreciated the low-pressure process. Neither one enjoyed the fitness test at a competitor.

# Recommendation

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- ❖ I suggest giving an *optional* fitness test after a member joins.
- ❖ The Chi Square test shows that Group B (no fitness test) was more likely to apply and more likely to purchase a membership.
- ❖ The Chi Square test shows that those who submit applications, from both groups, eventually join at similar rates.
- ❖ The limiting factor for joining MuscleHub is the fitness test.
- ❖ Giving an *optional* fitness test after new members have finished the application and payment may help encourage certain people to work-out regularly and maintain their membership.

# Thank You

