

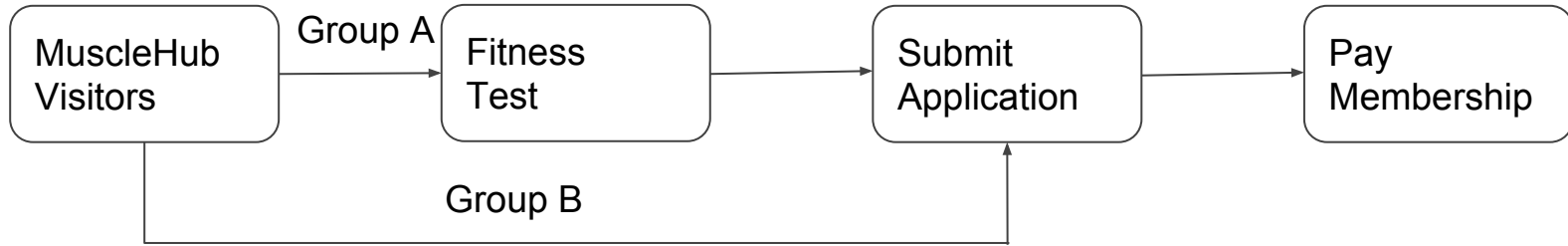
MuscleHub A/B Test

Should we ask all customer to finish a fitness test?





A/B Test Process



Step 1: Determine A/B test sample size

Step 2: Investigate the A/B Test Variants

Step 3: Hypothesis Testing



Select Dataset From Database

There are four tables in the database contain useful information for our analysis.

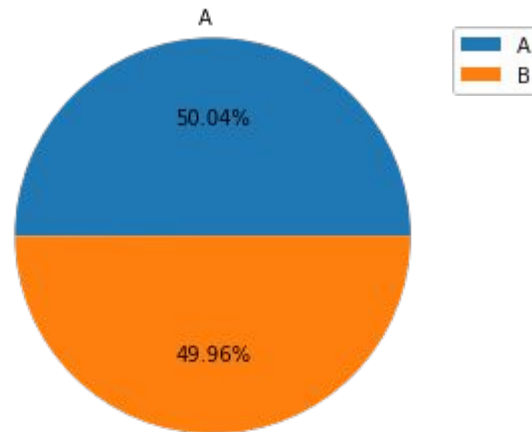
- **Visits**
- **Fitness_tests**
- **Applications**
- **Purchases**

Final Dataset:

A/B Test Period: 07.01.2107 to 09.09.2017

Data Size : 5004 rows(2504 for “Group A” and 2500 for “Group B”) ^B

New Columns : “ab_test_group”, “is_application” and “is_member”.





Hypothesis Tests Results

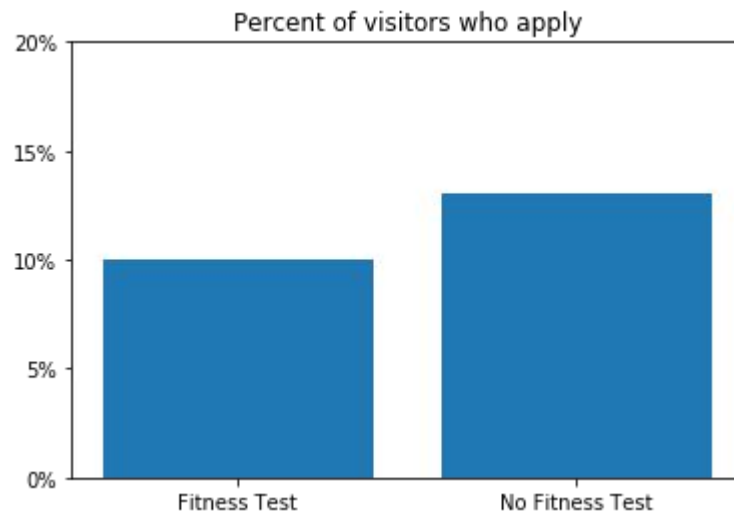
Test 1: Which group are more likely to pick up an application?

ab_test_group	Application	No Application
A	250	2254
B	325	2175

Hypothesis Test : Chi Square Test

P-Value: 0.0009

Conclusion: People from Group B are more likely to submit an application.





Hypothesis Tests Results

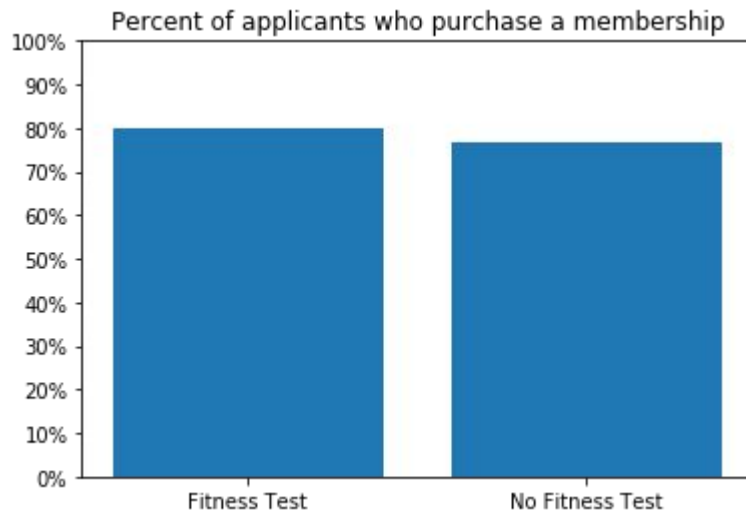
Test 1: For people who already submit applications, which group are more likely to purchase a membership.

ab_test_group	Member	Not Member
A	200	50
B	250	75

Hypothesis Test : Chi Square Test

P-Value : 0.43

Conclusion: After submitting applications, people from both group show no difference towards purchasing an membership.





Hypothesis Tests Results

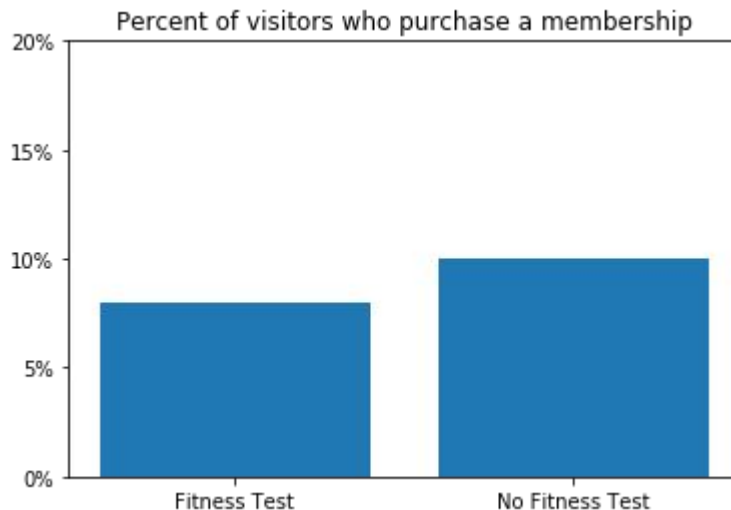
Test 1: Which group are more likely to purchase a membership?

ab_test_group	Member	Not Member
A	200	2304
B	250	2250

Hypothesis Test : Chi Square Test

P-Value : 0.01

Conclusion: People from Group B are more likely to purchase an membership.





Customer Interview Insights

Helpful for newbies

Equipment maintenance and cleanliness

Shorten the sign-up process

Trainer's proper interactions



Recommendation

Shorten the sign up process and make fitness test an hidden option for visitors instead of a standard process.