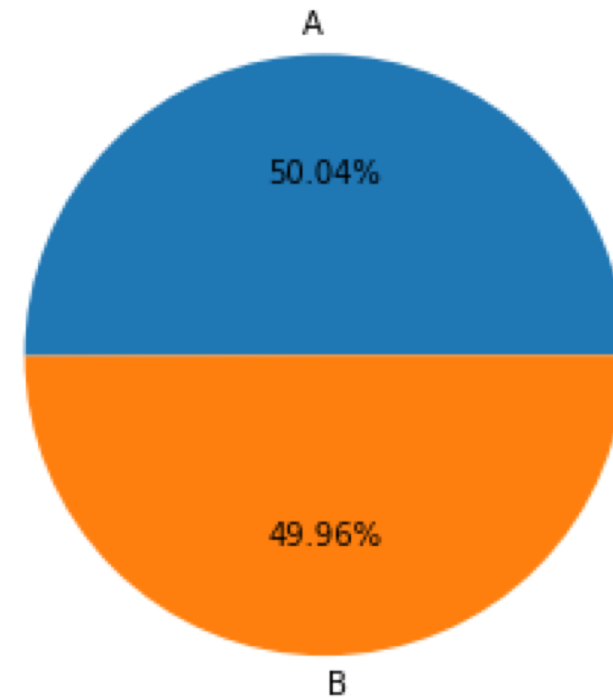


# MUSCLEHUB'S A/B TEST

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## ARE PEOPLE WHO DO NOT TAKE A FITNESS TEST MORE LIKELY TO BECOME MEMBERS?

- 5,004 people separated into two groups:
  - A (2,504 people): took a fitness test before application
  - B (2,500 people): did not take a fitness test before application
- Test period: **visits** between July and September 2017

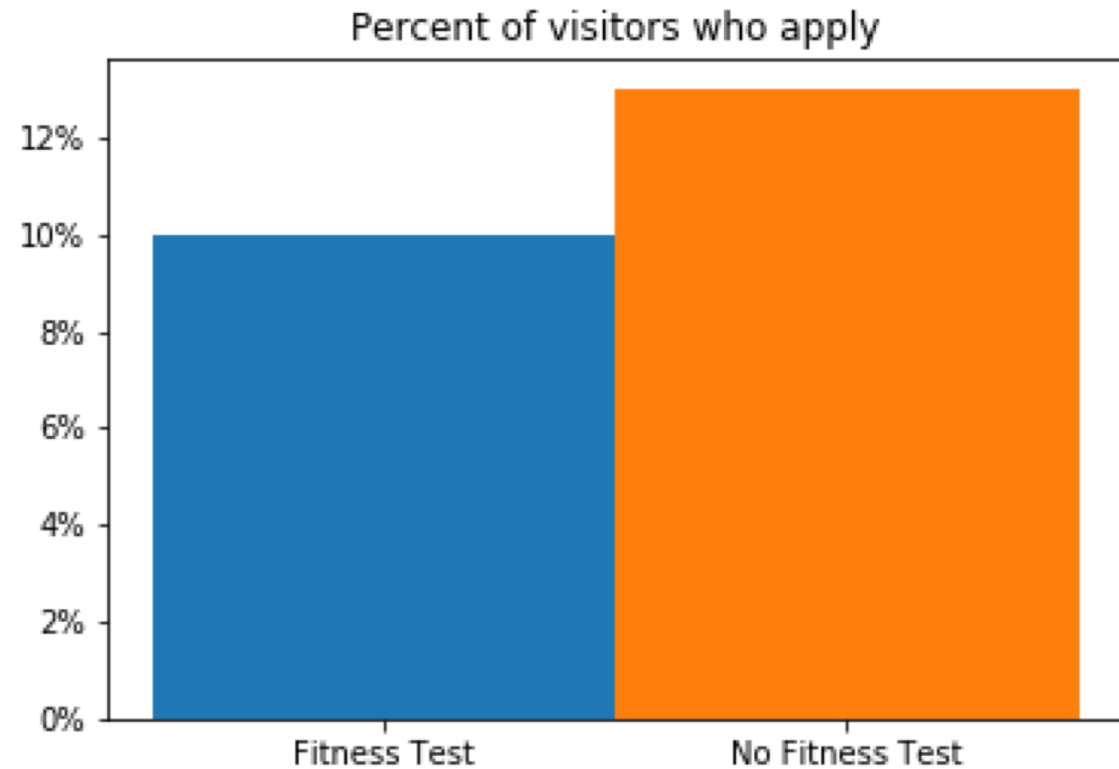


# METHODOLOGY

- If there is a record for the column “fitness test date”, then consider the customer Group A, otherwise, Group B;
- If there is a record for the column “application date”, then consider the customer as applicant;
- If there is a record for the column “purchase date”, then consider the customer as member.
- Create tables with the sums of customers in each group and situation, compare the sums to the totals and run a statistical tests for significance:
- Binomial test was chosen to assess significance because data entries are categorical, with two possibilities:
  - applied or did not apply for a membership;
  - purchased or did not purchase a membership
  - took or did not take a fitness test

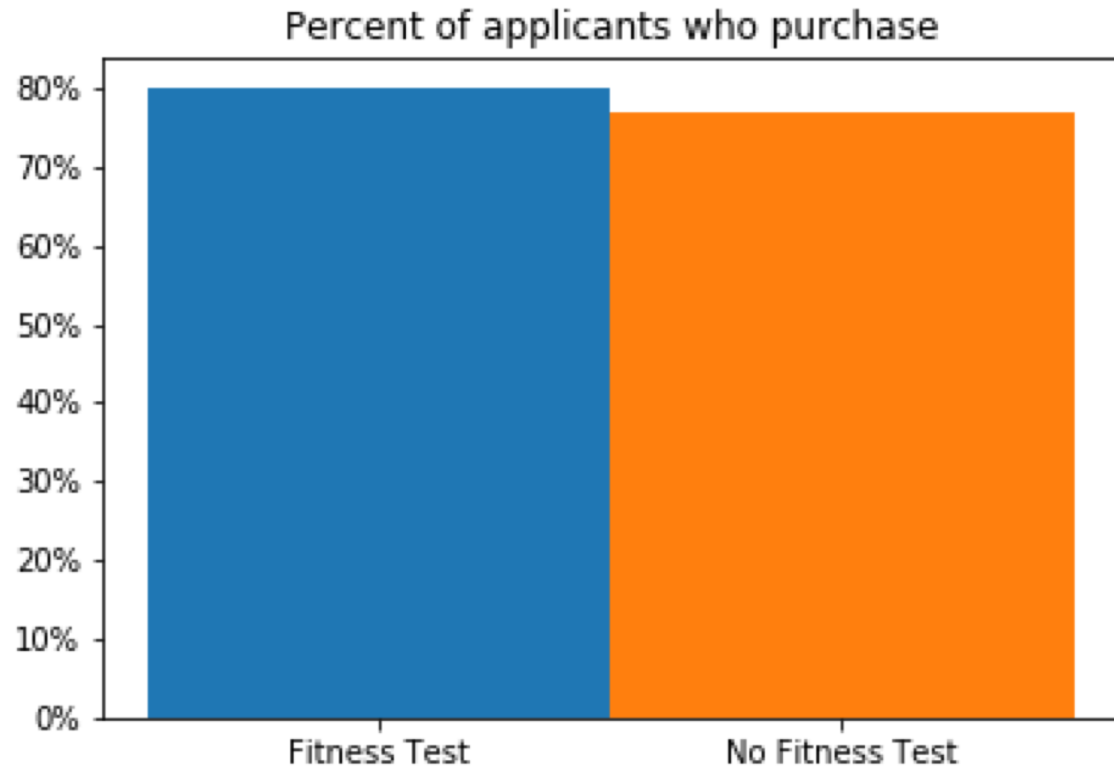
## VISITORS WHO APPLY FOR A MEMBERSHIP

- 250 people (of 2,504), who visited and took a fitness test, applied for a membership
- 325 people (of 2,500), who visited and did not receive a fitness test, applied for a membership
- Statistically significant result:
  - $p\text{-value} = 0.00\%$



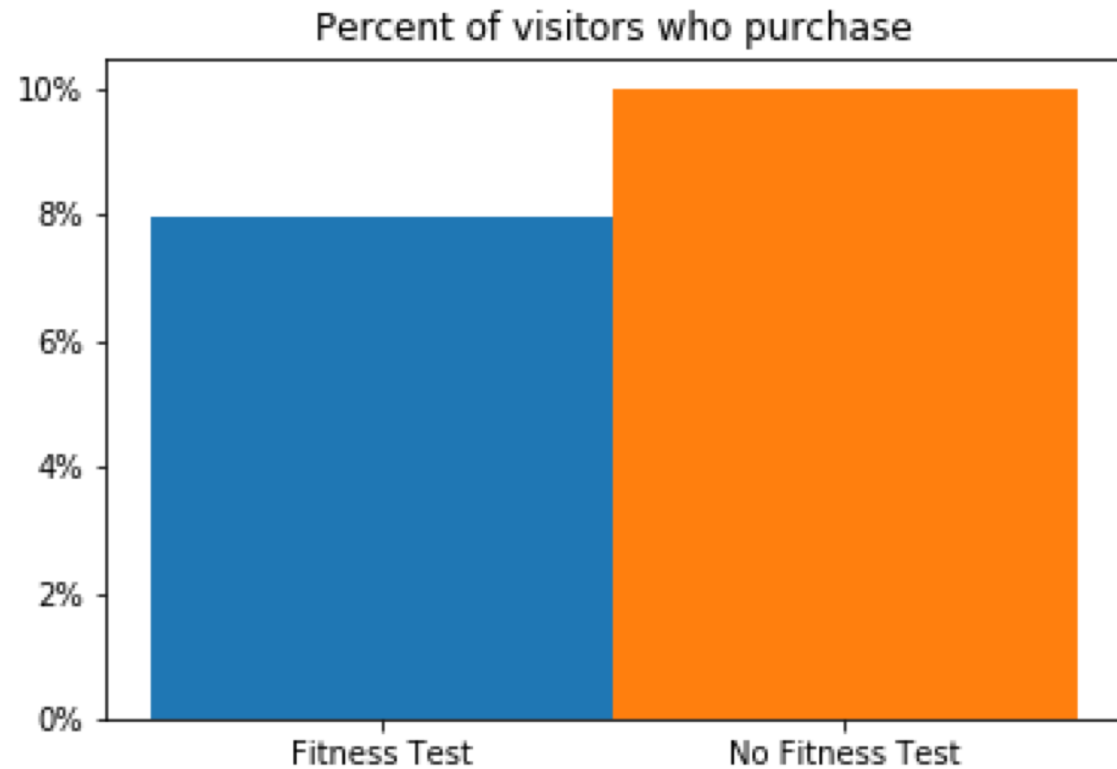
## APPLICANTS WHO PURCHASE A MEMBERSHIP

- 200 people (of 250), who took a fitness test and applied for a membership, purchased it
- 250 people (of 325), who did not take a fitness test but applied for a membership, purchased it
- Not statistically significant result:
  - $p\text{-value} = 26,10\%$



## VISITORS WHO PURCHASED A MEMBERSHIP

- 200 people (of 2,504), who visited and took a fitness test, purchased a membership
- 250 people (of 2,500), who visited and did not take a fitness test, purchased a membership
- Statistically significant result:
  - $p\text{-value} = 0.03\%$



# INTERVIEWS

- Fitness test is seen positively by some:
  - Helpful for beginners
  - Not too intense
- Not a consensus, though:
  - “I took the MuscleHub fitness test because my coworker Laura recommended it. Regretted it.”

## CONCLUSIONS

- People who do not take a fitness test are more likely to apply for a membership and purchase it than those who take it.
- Among those who have already visited and applied for a membership, no conclusion can be drawn from the data.
- **Recomendation:**
  - Make the customer aware of the benefits of a fitness test but make it optional