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Introduction

This project measures to explore the correlations between age, gender, and potential violent tendencies. Moreover, we aim, to find any correlations between violent behaviors (frequently carrying a weapon to school, and getting into frequent fights), and rather or not these violent behaviors correlate to a specific gender, in the age range 12 to 18+ (but under 19).

Data Source

- We used data from the cdc website
- https://www.cdc.gov/yrbss/files/2023/XXH2023_YRBS_Data.zip

Data Winnowing

- We used the following process to winnow our data
 - Download msdb file from CDC website
 - Open msdb file in Microsoft access
 - Create new query (available on github)
 - Export as excel sheet
 - while this process modeled our most focused on questions, we utilized pandas built in methods in python to drop unnecessary columns

Demographic info used

- questions
- A step by step process can be found In our project documentation

Hypothesis

H1: Someone who has been involved in a school fight has a higher chance of carrying a weapon to school.
H2: Someone who has been involved in a school fight has a lower chance of carrying a weapon to school.
Null-H: There is no correlation between school fights and carrying a weapon to school

Finding 1

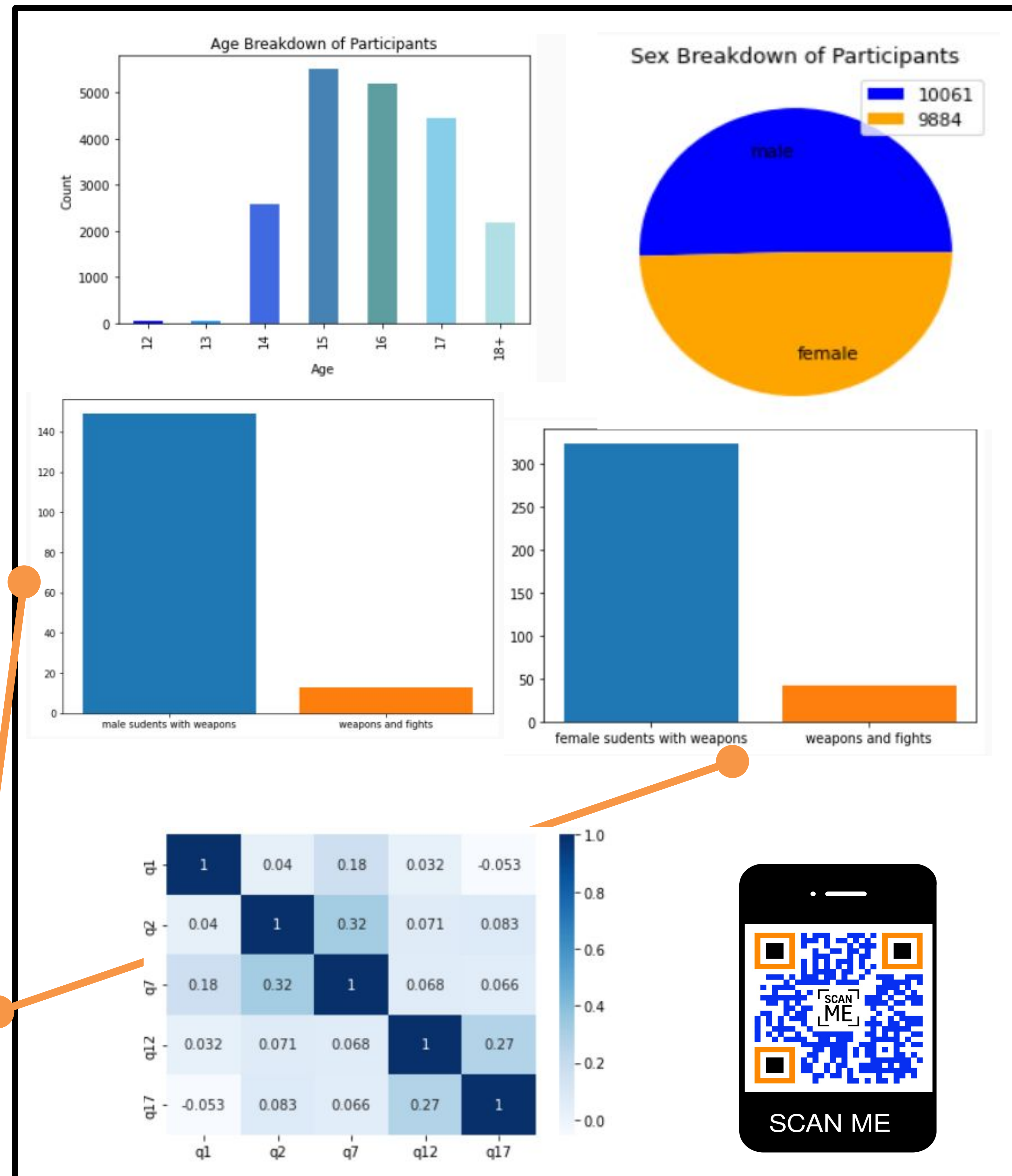
-Our findings suggest that the correlation between questions 12 and 17 is very loose in the positive direction. This correlation is not necessarily proof of anything significant.

Finding 2

-Out of the 149 male students who brought weapons 4 or more days , 13 of them got into frequent fights. 8.7%
-Out of the 324 female students who brought weapons 4 or more days, 42 got into frequent fights.12.3%

Conclusion

Our research can conclude that a female who has been frequent fights at school has a slightly higher chance of bringing a weapon to school. The female percentage is higher than the male percentage. Once again our research doesn't prove that one things causes the other. Simply it shows that one thing can increase when another thing does. Although our research did show some positive correlations there are still more factors that could contribute to students outputting violent behaviors. Things such as mental health, bad days, and bullying are also contributing factors. We would recommend to anyone that would like to further our research to look into the other contributing factors also.



References

The Youth Risk Behavior Survey 2021 Data Set from the CDC available at: <https://www.odc.gov/healthyouth/data/yrbss/data.htm>
Anaconda Python Package download available at <https://www.anaconda.com/download>
Matplotlib Documentation available at: <https://matp.at/b.org/stable/>
Pandas Documentation available at: <http://pandas.pydata.org/does/>