Students Alcohol Consumption Analysis

Link to database on Kaggle:

https://www.kaggle.com/datasets/uciml/student-alcohol-consumption?resource=download

Introduction

The main goal of this project is to gain valuable insights into the reasons for alcohol consumption among students from two schools. To achieve this, we will use Power BI to create a report that will guide us to meaningful conclusions.

Context

The data focuses on secondary school students enrolled in math and Portuguese courses and their alcohol consumption on weekdays and weekends. We will work only with the Portuguese course students because that dataset contains significantly more students and includes nearly all students from the math course.

Questions

The primary objective is to determine correlations between school, family, social environment, and alcohol consumption. The report will consist of four sections:

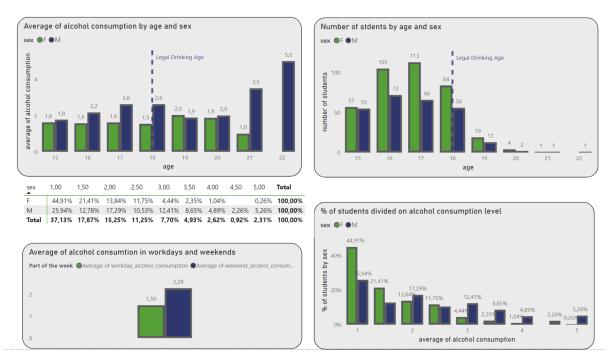
- 1. Does age or gender correlate with alcohol consumption?
- 2. Do school-related factors correlate with alcohol use?
- 3. What impact do parents have on alcohol consumption?
- 4. How does the way students spend time correlate with alcohol consumption?

Data Preparation

The databases have been previously cleaned, so no additional cleaning is necessary. We will only rename the columns for easier readability.

Report

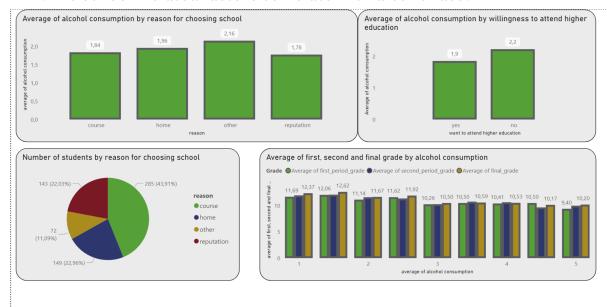
1. Does age or gender correlate with alcohol consumption?



Key insights:

- **Early Contact with Alcohol:** Male students are more likely than female students to have contact with alcohol before reaching the legal drinking age.
- **Frequency of Consumption:** A significant difference in alcohol consumption levels exists between genders: 44.91% of female students reported the lowest possible alcohol consumption level, compared to only 25.94% of male students.
- **Weekend Drinking Patterns:** Students generally consume alcohol more frequently on weekends than on weekdays.

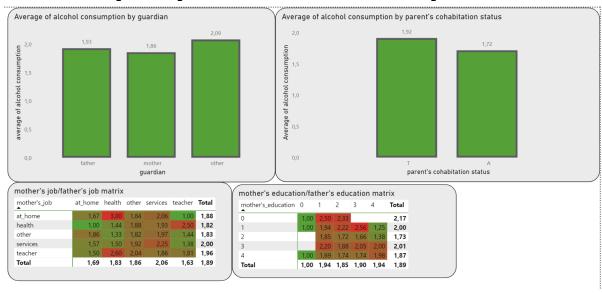
2. Do school-related factors correlate with alcohol use?



Key insights:

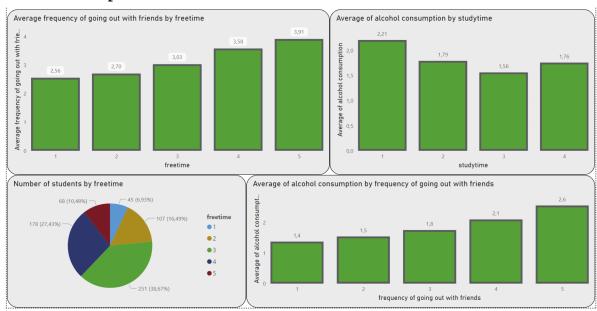
- **School Choice and Alcohol Consumption:** Students who selected their school based on its reputation or specific course preferences are less likely to consume alcohol.
- **Higher Education Aspirations:** Students with aspirations for higher education tend to consume less alcohol.
- **Grades and Drinking Correlation:** There is a correlation between increased alcohol consumption and lower academic performance, with students who drink more often showing worse grades.

3. What impact do parents have on alcohol consumption?



Key insights:

- **Parental Living Arrangements and Alcohol Exposure:** Students whose parents live together tend to have greater exposure to alcohol.
- **Parental Education and Profession:** There appears to be little to no correlation between the education or profession of parents and the drinking habits of students.
- **Non-Parental Guardianship and Drinking Frequency:** Students who are under the guardianship of someone other than their parents are more likely to consume alcohol frequently.
- 4. How does the way students spend time correlate with alcohol consumption?



Key insights:

- **Free Time and Social Interaction:** There is a clear correlation between the amount of free time students have and the time they spend with friends.
- **Study Time and Alcohol Consumption:** Students who dedicate the least amount of time to studying tend to have the highest levels of alcohol consumption.
- **Social Time and Alcohol Use:** The more time students spend with their friends, the more likely they are to consume alcohol.