

**Institute of Technology of Cambodia
Department of Applied Mathematics and Statistics**

SUBJECT: DATA VISUALIZATION

Alcohol Youth Cambodia

GROUP 2

Our Lecturer

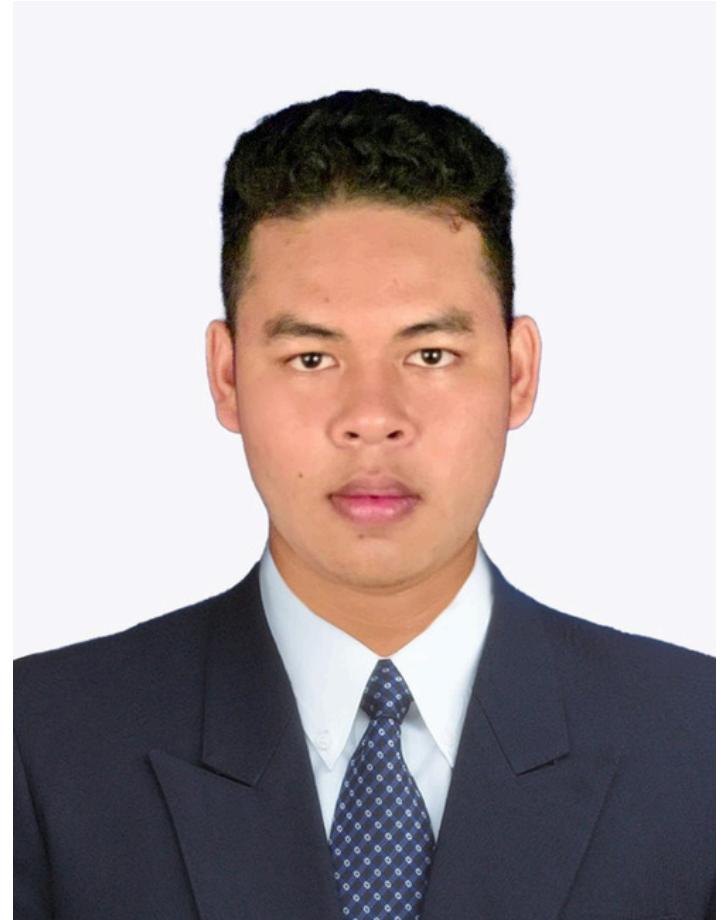


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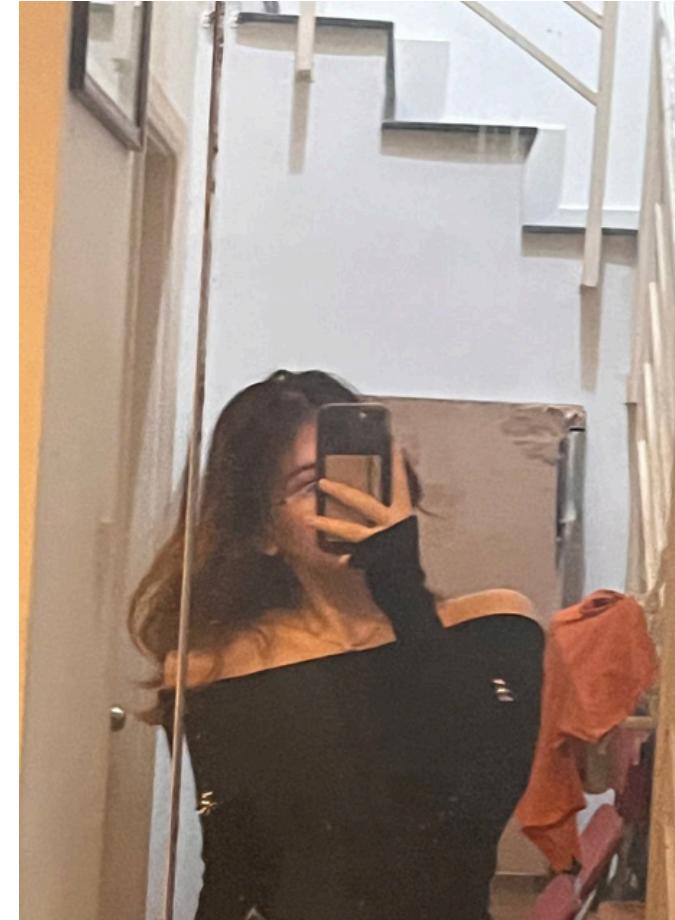
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Introduction

Alcohol consumption among youth in Cambodia has become a rising concern, especially as alcohol becomes more accessible and socially accepted. Young people between the ages of 15 and 28 are particularly at risk due to peer pressure, limited awareness of health consequences, and cultural norms that often encourage drinking. This study explores the drinking habits of Cambodian youth, including how often they drink, what types of alcohol they prefer, and the reasons behind their choices. By understanding these patterns, we can better inform public health efforts, educational campaigns, and policies to promote safer behaviors and reduce alcohol-related harm.



Problem statement

Alcohol consumption is a growing public health concern, particularly among young people in Cambodia. Despite existing laws and awareness efforts, many youths continue to engage in regular or high-risk drinking behavior. This trend may contribute to various social, health, and safety issues including accidents, poor academic performance, family conflict, and risky behavior.

There is limited comprehensive data and analysis available to policymakers, educators, and healthcare professionals regarding:

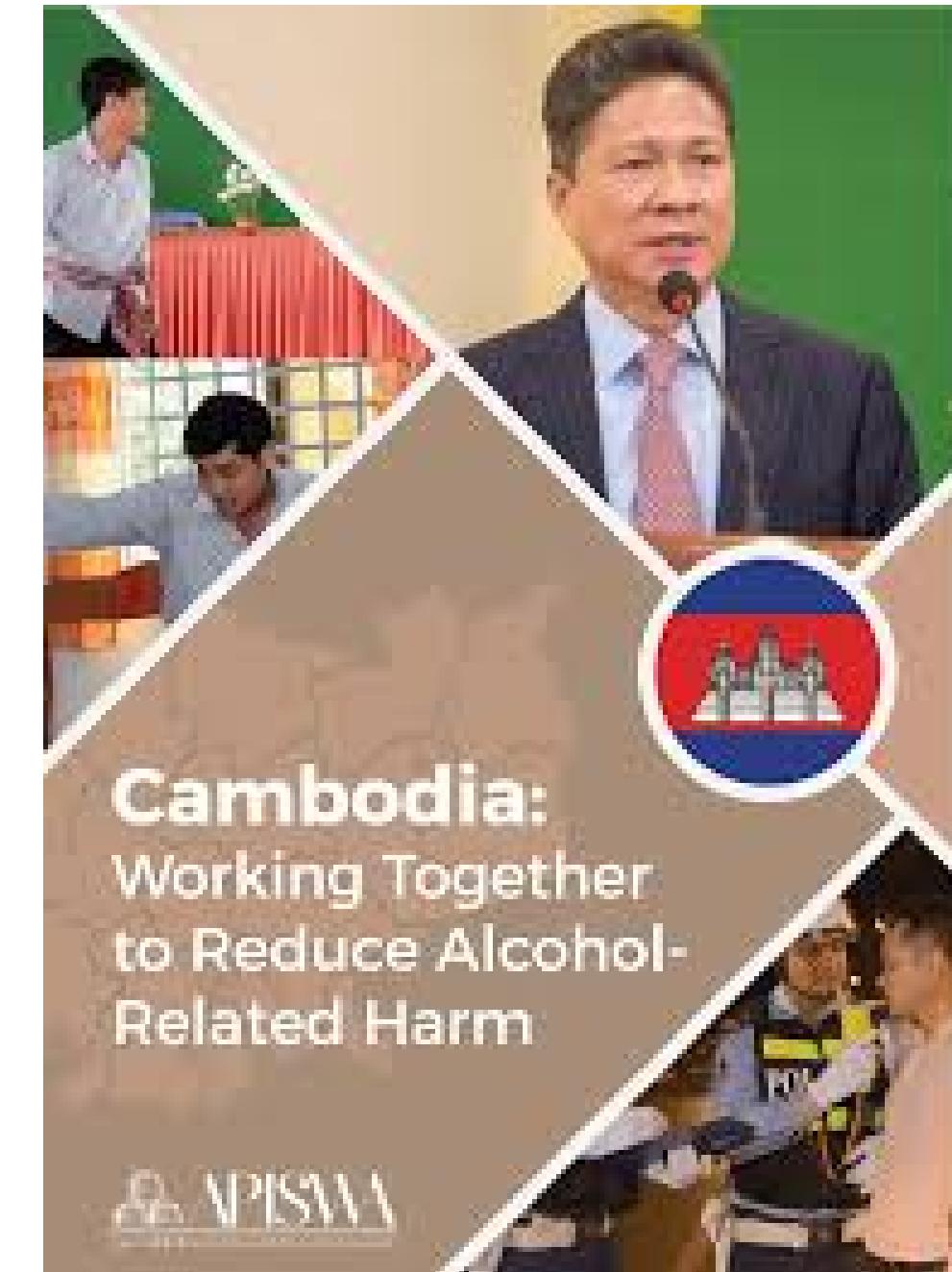
- Who is consuming alcohol (demographics such as age, gender, location)
- What types of alcohol are commonly consumed
- How frequently and how much people drink
- Why they choose to drink (social pressure, stress, curiosity, etc.)
- What consequences and risks they experience (e.g., regret, accidents)
- Their level of awareness about alcohol-related harms and laws



Objective

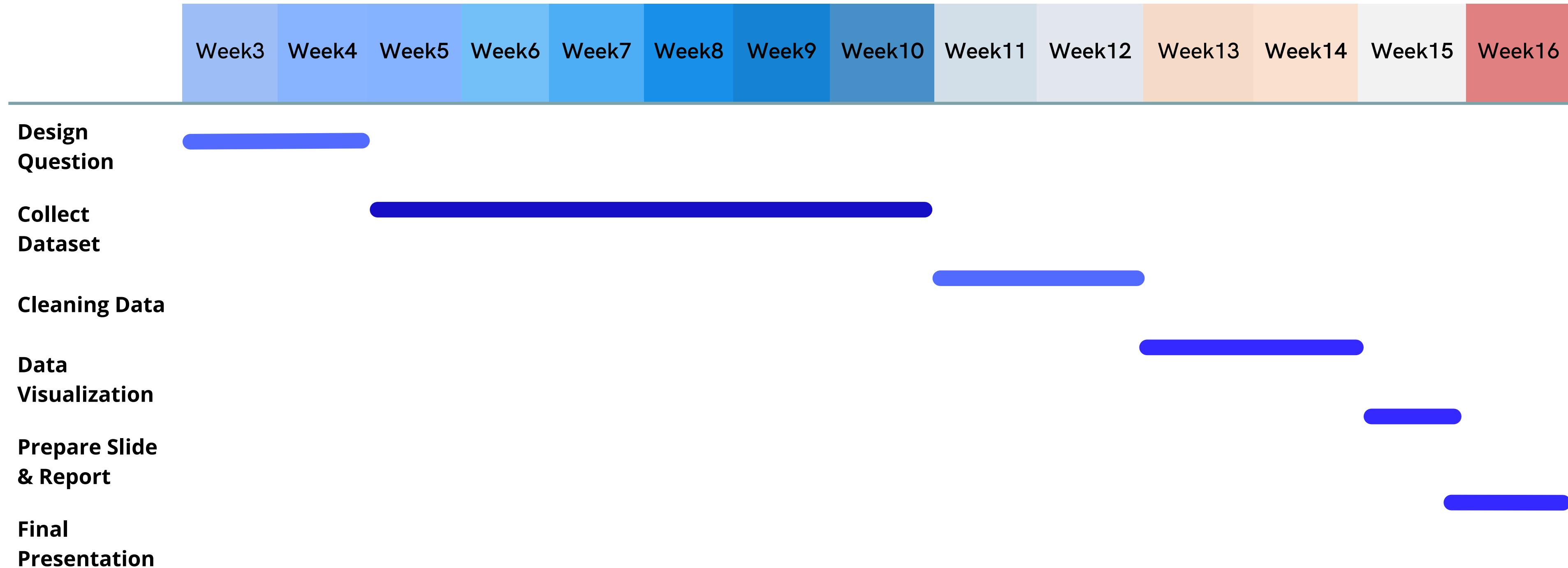
Our main objective is to analyze alcohol consumption patterns among youth in Cambodia using survey data and Power BI in order to uncover key trends, risks, and awareness levels ultimately supporting data-driven strategies for harm reduction and education.

- Identify Demographics of Drinkers
- Analyze Drinking Behaviors
- Understand Motivations Behind Drinking
- Assess Awareness and Perceptions
- Highlight Negative Outcomes
- Evaluate Support for Regulation
- Create Actionable Visual Insights



Project Timeline

- Here's the Progress of this project is shown in the Gantt Chart:



Limitation

This study has several limitations. The dataset is based on a relatively small and self-reported survey, which may introduce response bias and affect the accuracy of results. The geographic distribution of responses is concentrated in urban areas like Phnom Penh and Takeo, limiting broader regional representation. Some responses contain missing or unclear values, such as “maybe,” which complicates interpretation. Additionally, the data reflects a single point in time and does not capture changes in behavior over time. Lastly, the questionnaire does not include other important influencing factors such as family background, income, or exposure to alcohol-related media, which could provide deeper insights.



Methodology

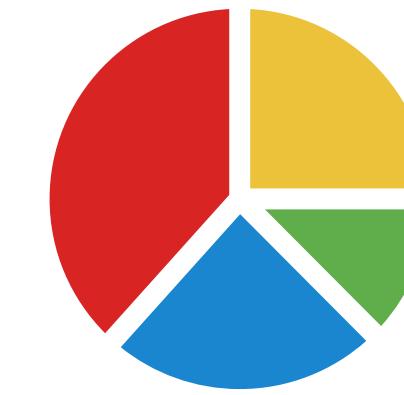
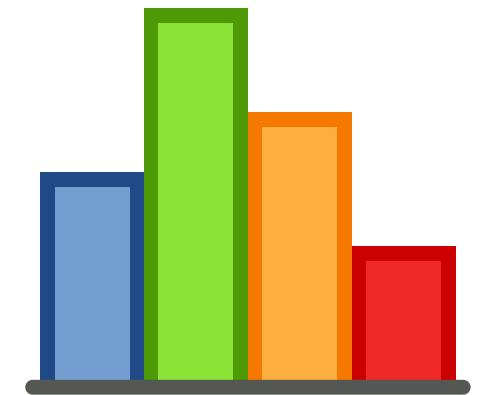
Tools Used:



Power BI



Types of Visualizations Used:



Data Source

🔍 Method: Structured survey

👤 Participants: 109 Cambodian youth

🌐 Locations: Phnom Penh, Takeo, and other provinces

📋 Survey Topics Included:

- Demographics (age, gender, location, occupation)
- Alcohol drinking habits and frequency
- Preferred alcohol types and reasons for drinking
- Awareness of health risks and opinions on alcohol policies

JUL 17 Format: Both online and in-person responses



Data Preparation

Data preprocessing included:

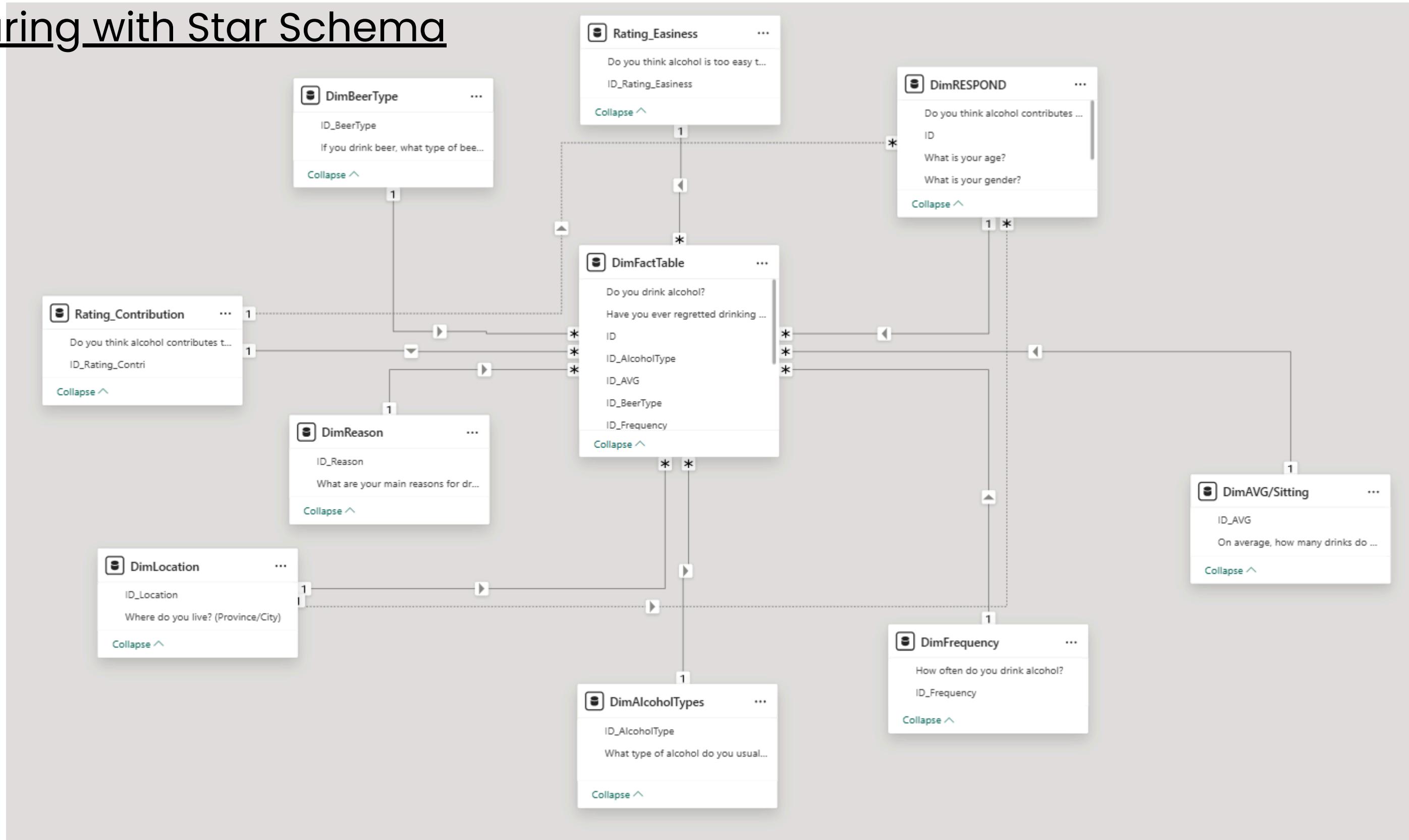
- Standardization of categorical responses
- Handling of missing values
- Validation of age ranges and demographic consistency
- Creation of derived variables for analysis
- Quality assurance checks for data integrity

Before visualizing and analyzing the alcohol consumption survey data in Power BI, it's important to prepare and structure the dataset effectively. A well-organized data model ensures accurate insights and smooth performance. One of the most effective ways to structure data for business intelligence tools like Power BI is through a Star Schema.

The Star Schema is a dimensional data model that arranges data into a central fact table surrounded by multiple related dimension tables. This structure simplifies queries, improves performance, and allows for easy slicing and dicing of the data from various angles such as gender, location, or alcohol type.

DATA MODELING AND SCHEMA

Data Structuring with Star Schema



DATA Visualization

Dashboard

Alcohol Consumption among youth

109

Respond

55

Male

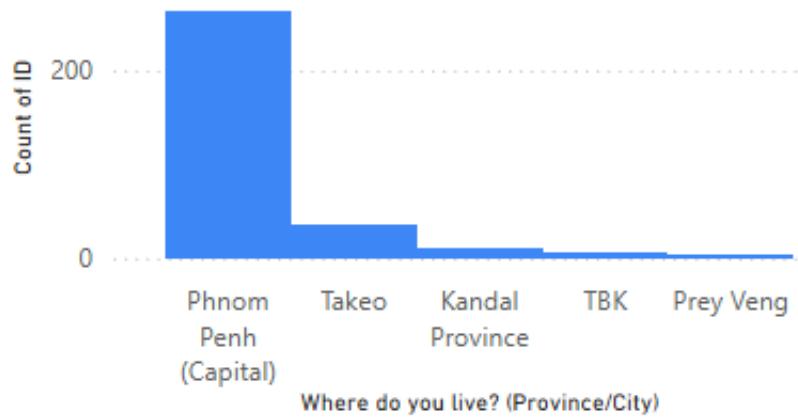
51

Female

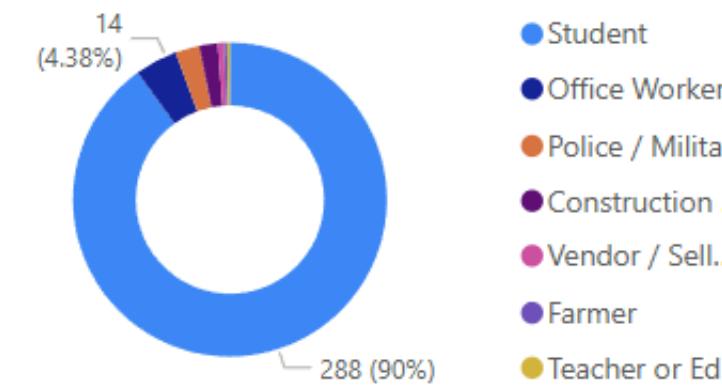
21.50

AVG of Age

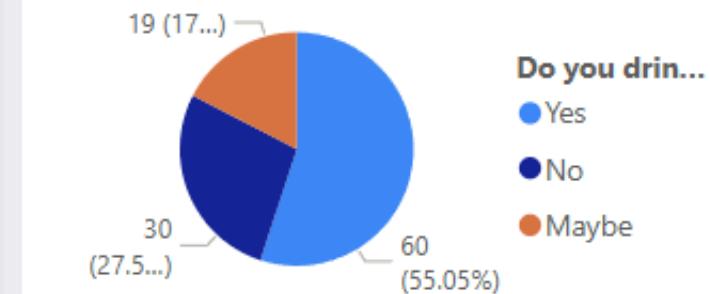
Where they from



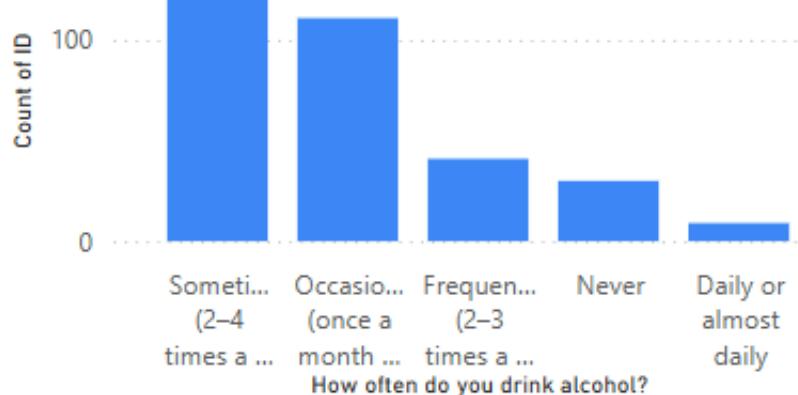
Occupation



Do they drink alcohol?



Frequency



Count of ID by On average, how many drinks do you have in one sitting?



11.98

Average of SpendingAmount

Major Problem

4.17

Easiness

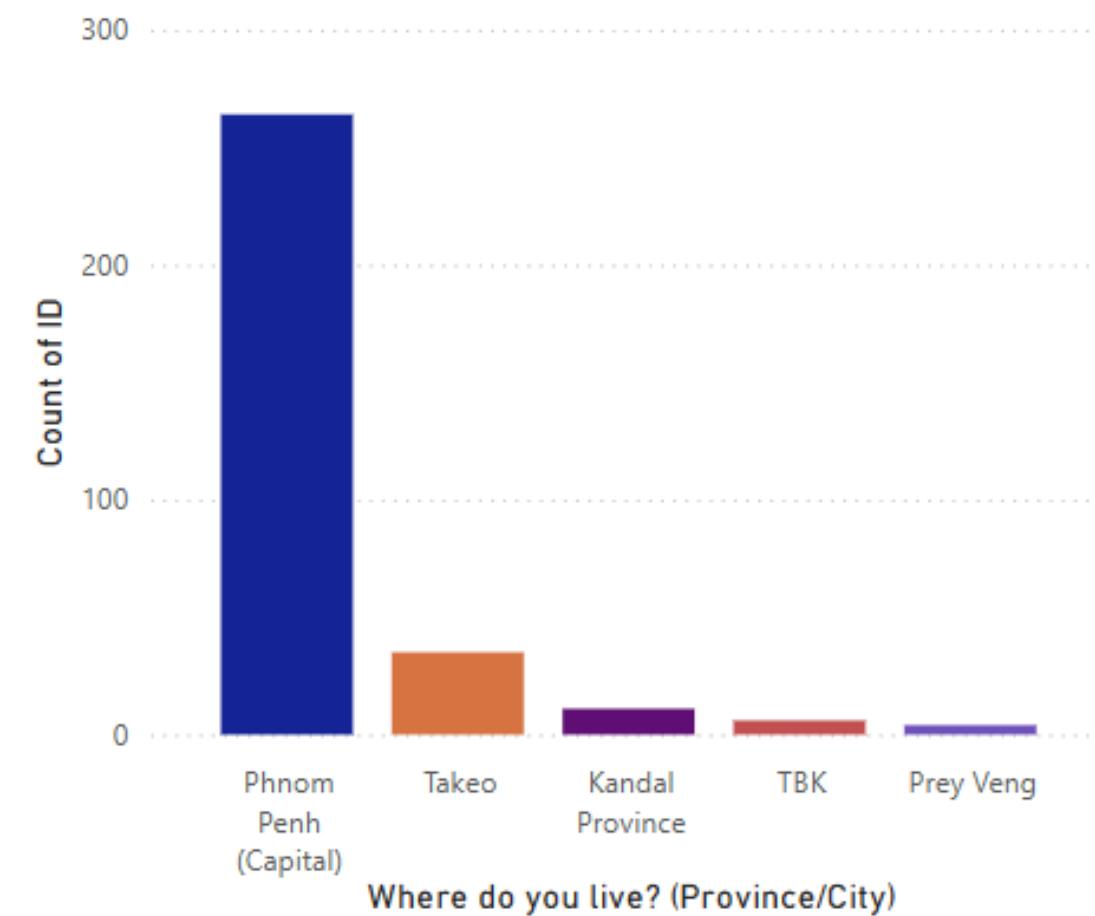
4.45

Demographic Analysis

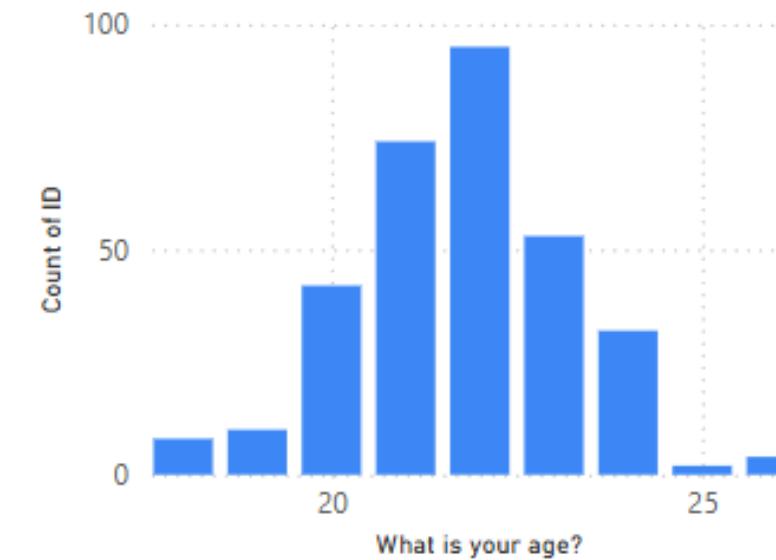
What is your gender? ▾
 Female
 Male
 Prefer not to say

Do you drink alcohol? ▾
 Maybe
 No
 Yes

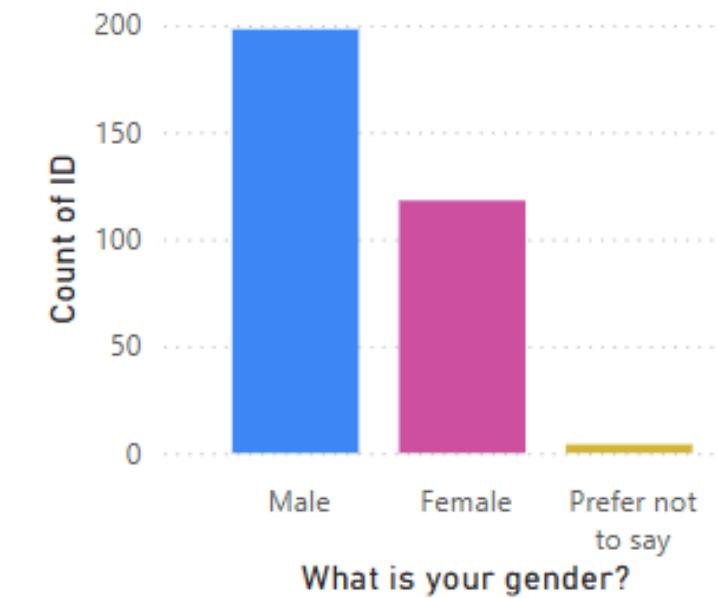
(Province/City)



Count of ID by What is your age?



Count of ID by What is your gender?



Alcohol Consumption among youth

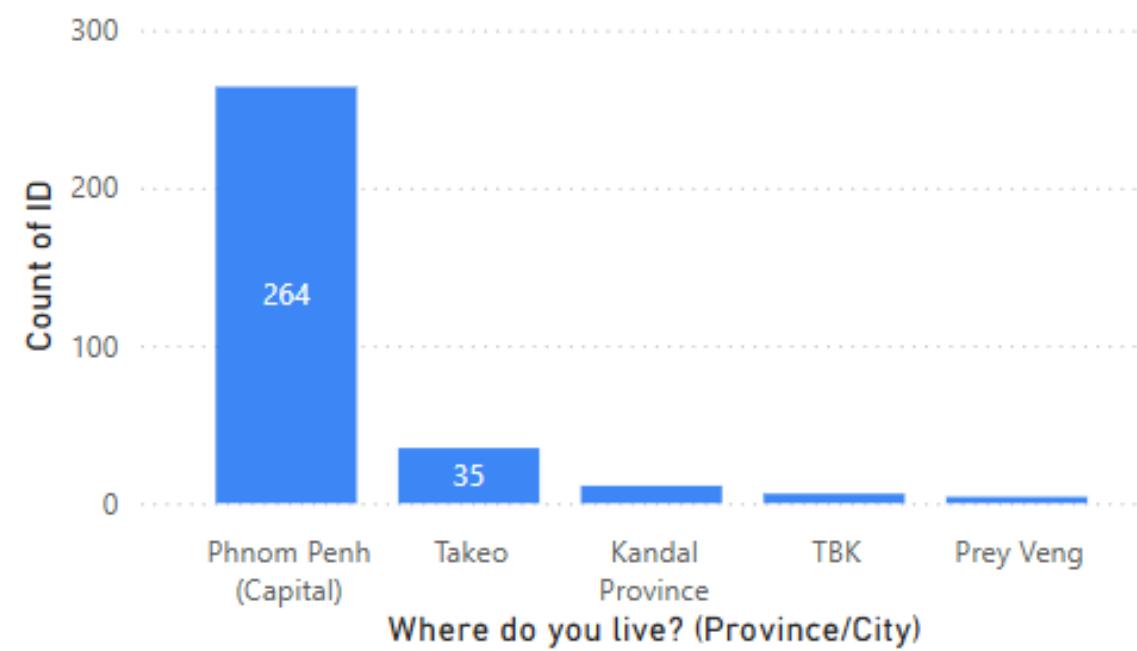
What is your occupation? ▾
 Construction Worker / Laborer
 Farmer
 Office Worker / Clerk / Admin
 Police / Military / Security
 Student
 Teacher or Educator
 Vendor / Seller / Market Worker

11.98

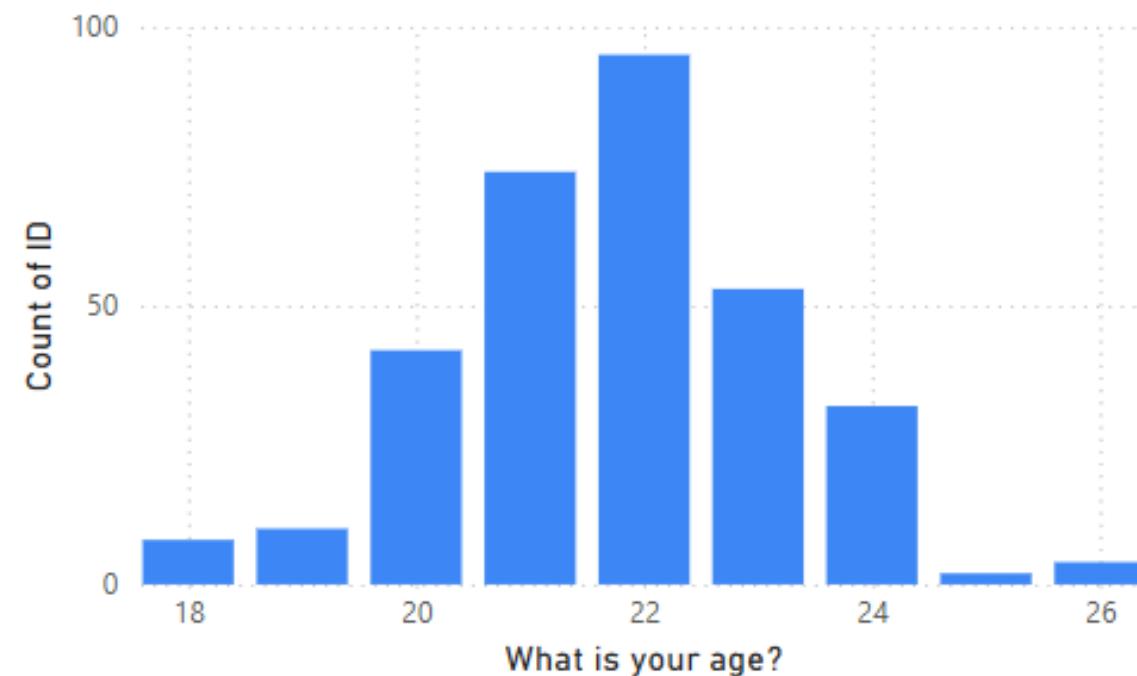
Average of SpendingAmount

Consumption Frequency

Count of ID by Where do you live? (Province/City)



Count of ID by What is your age?



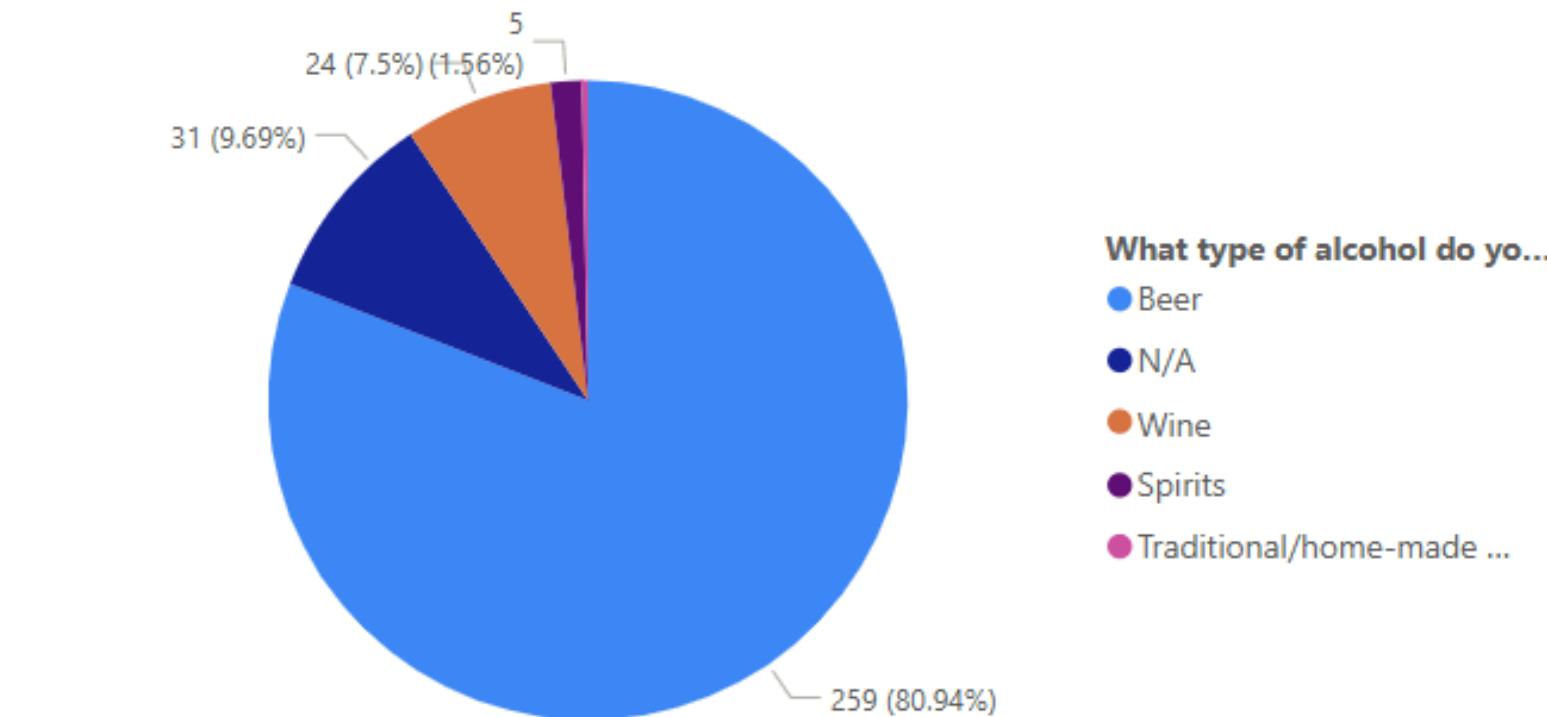
What is your gender?

- Female
- Male
- Prefer not to say

Do you drink alcohol?

- Maybe
- No
- Yes

Count of ID by What type of alcohol do you usually drink? (Check all that apply)



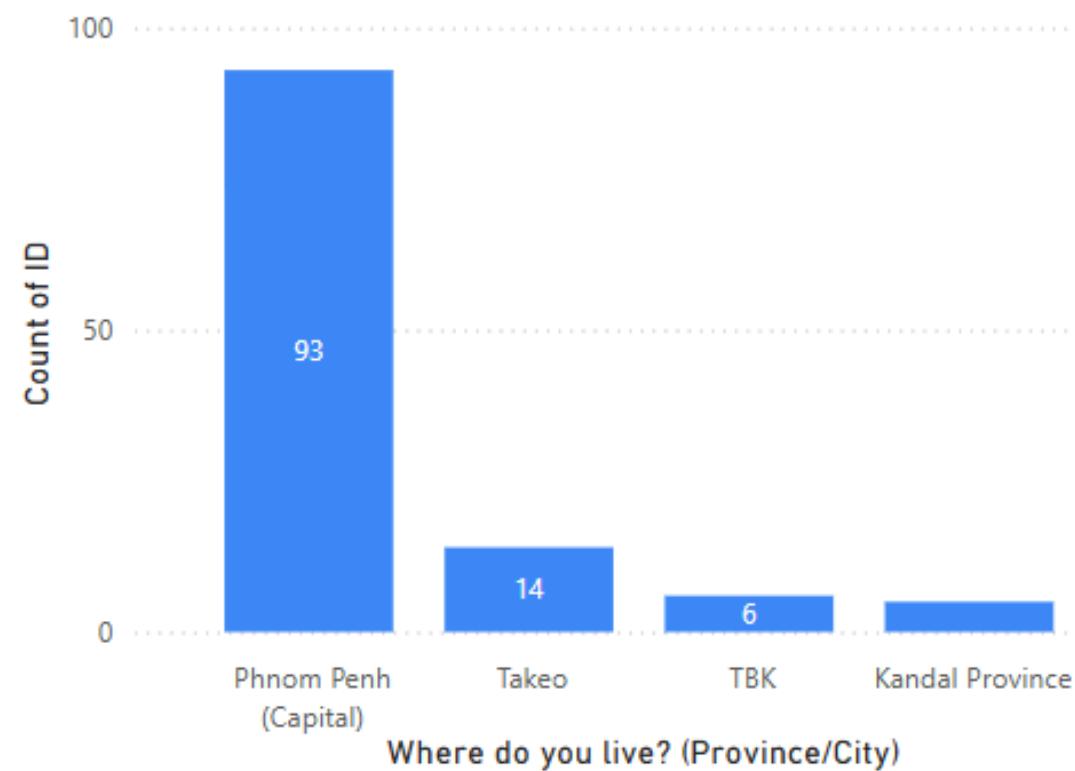
Beverage Preferences

- What type of alcohol do you usually drink? (Check all that apply), ID
- ✓ Beer
 - ✓ N/A
 - ✓ Spirits
 - ✓ Traditional/home-made alcohol
 - ✓ Wine

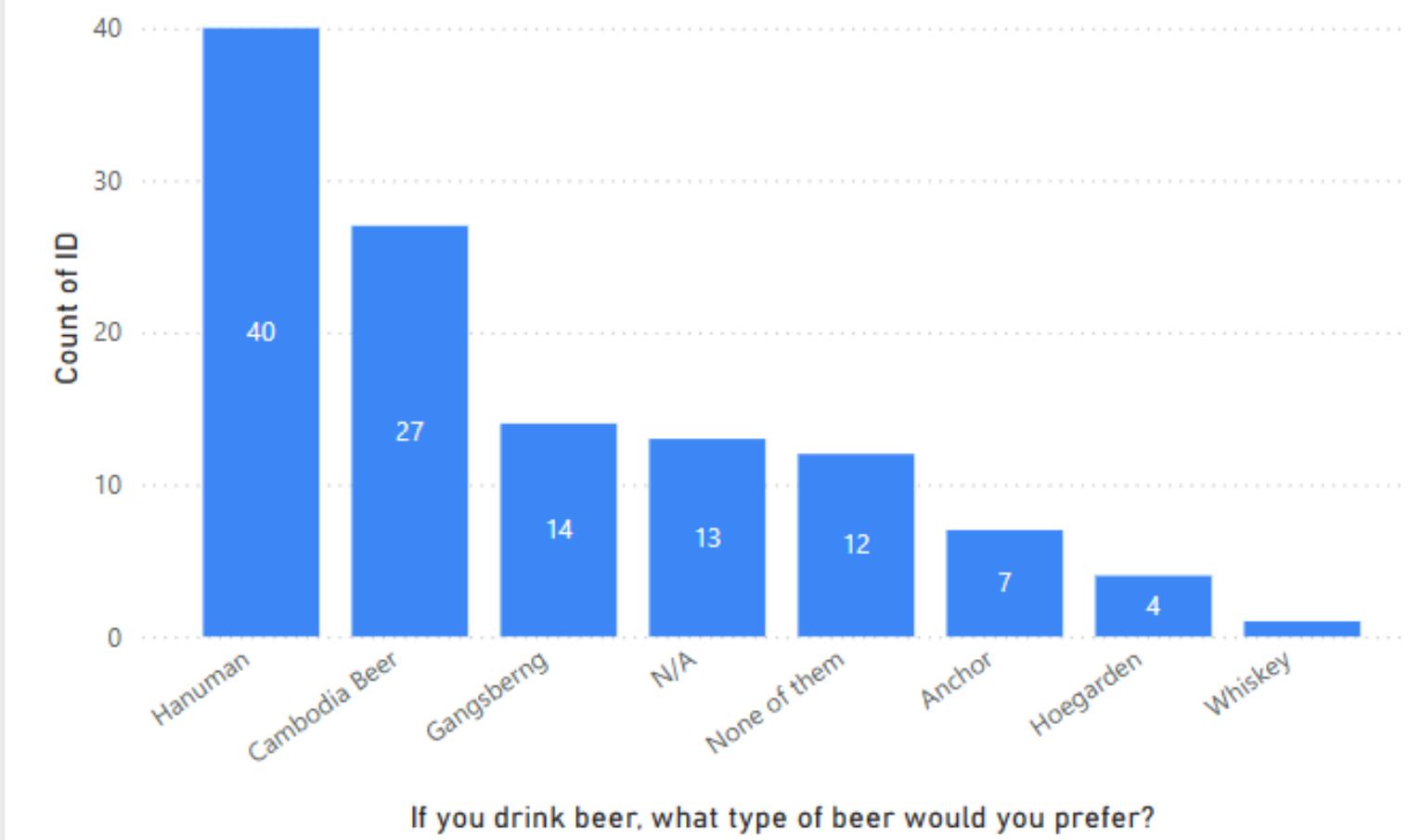
- What is your gender?
- Female
 - Male
 - Prefer not to say

- Do you drink alcohol?
- Maybe
 - No
 - Yes

Count of ID by Where do you live? (Province/City)

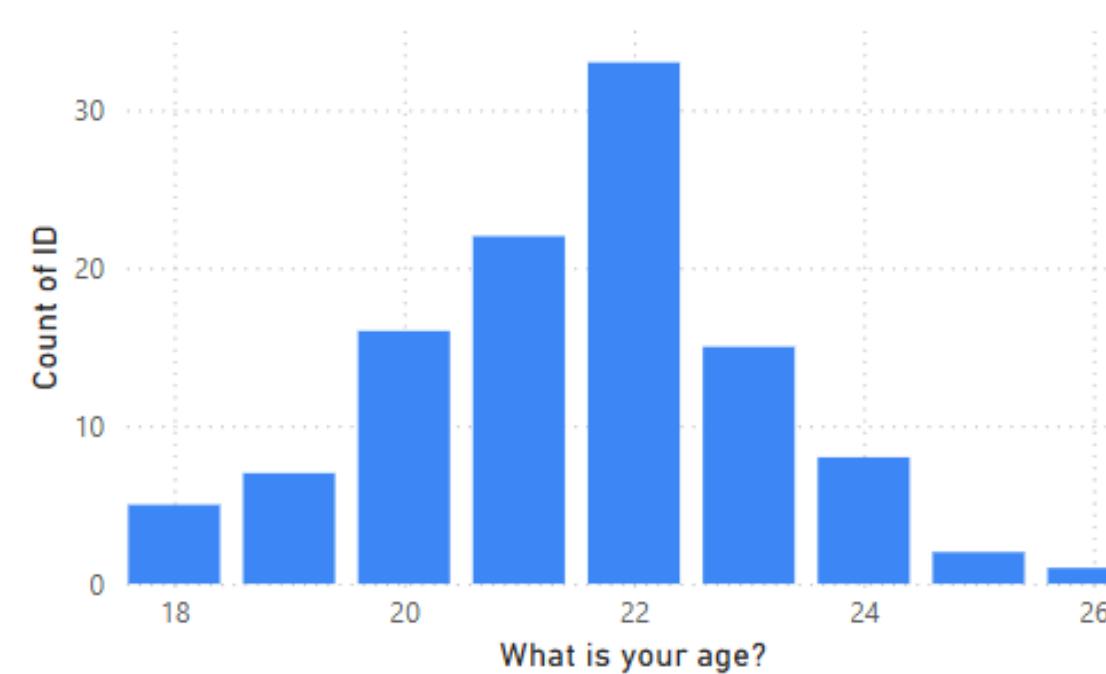


Count of ID by If you drink beer, what type of beer would you prefer?



Consumption Quantities

Count of ID by What is your age?



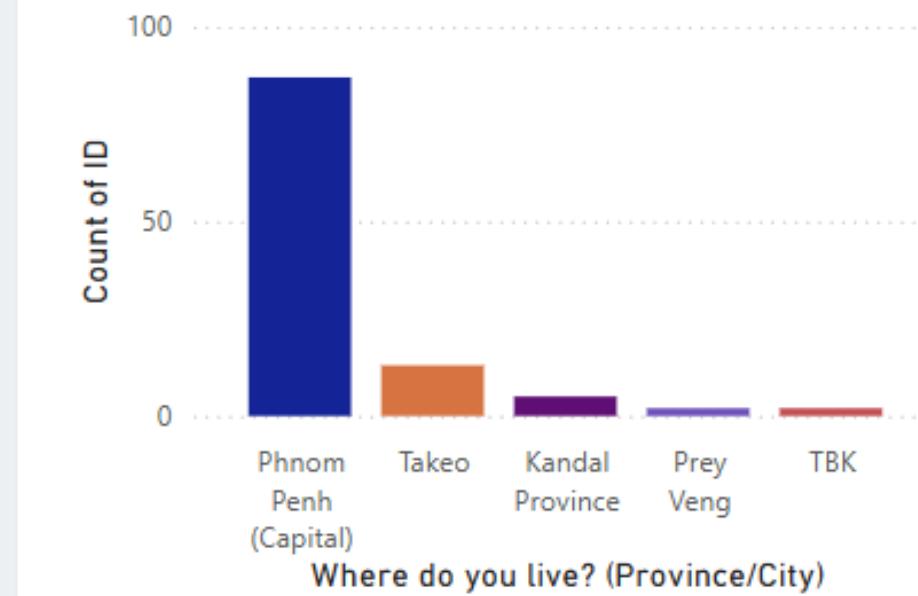
What is your gender? ▾

- Female
- Male
- Prefer not to say

Do you drink alcohol? ▾

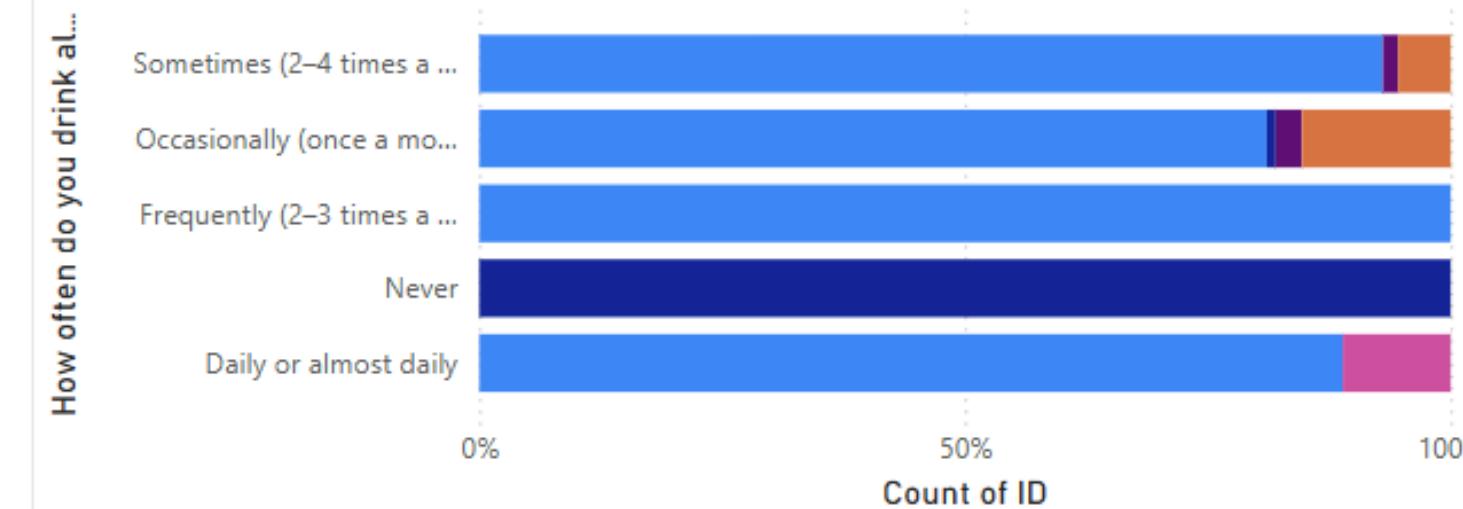
- Maybe
- No
- Yes

(Province/City)

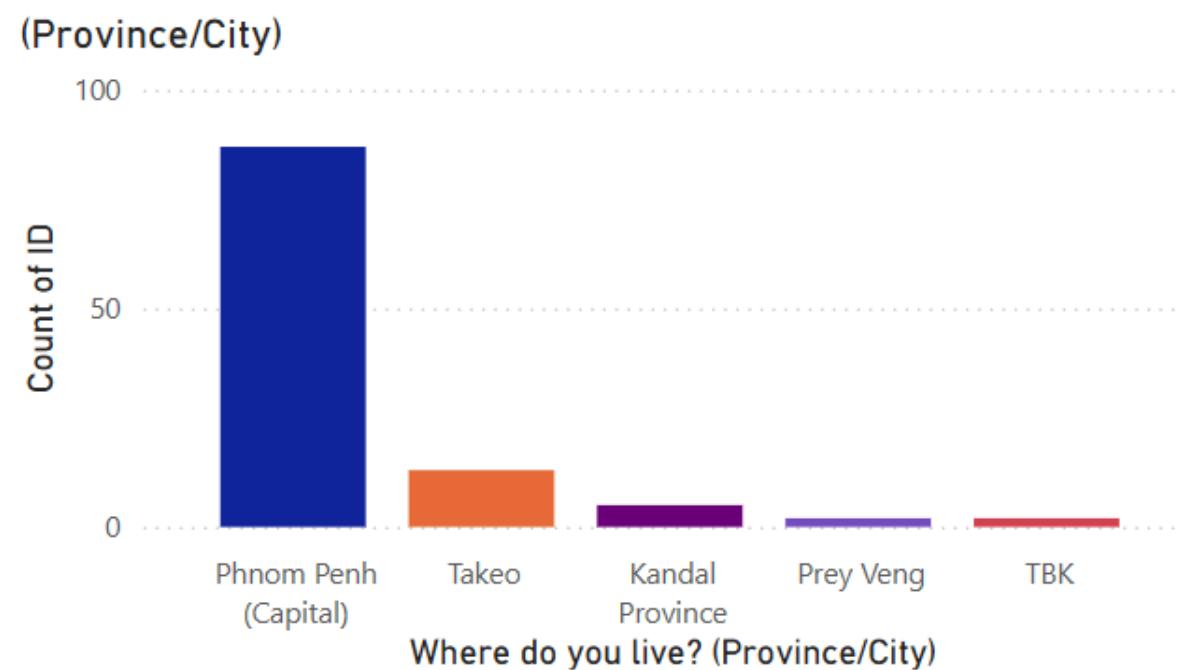


Count of ID by How often do you drink alcohol? and What type of alcohol usually drink? (Check all that apply) ✖ ✖ ...

What type of alcohol do you usually drink? ● Beer ● N/A ● Spirits ● Traditional/home-made alcohol ● Wine



Motivations for Drinking

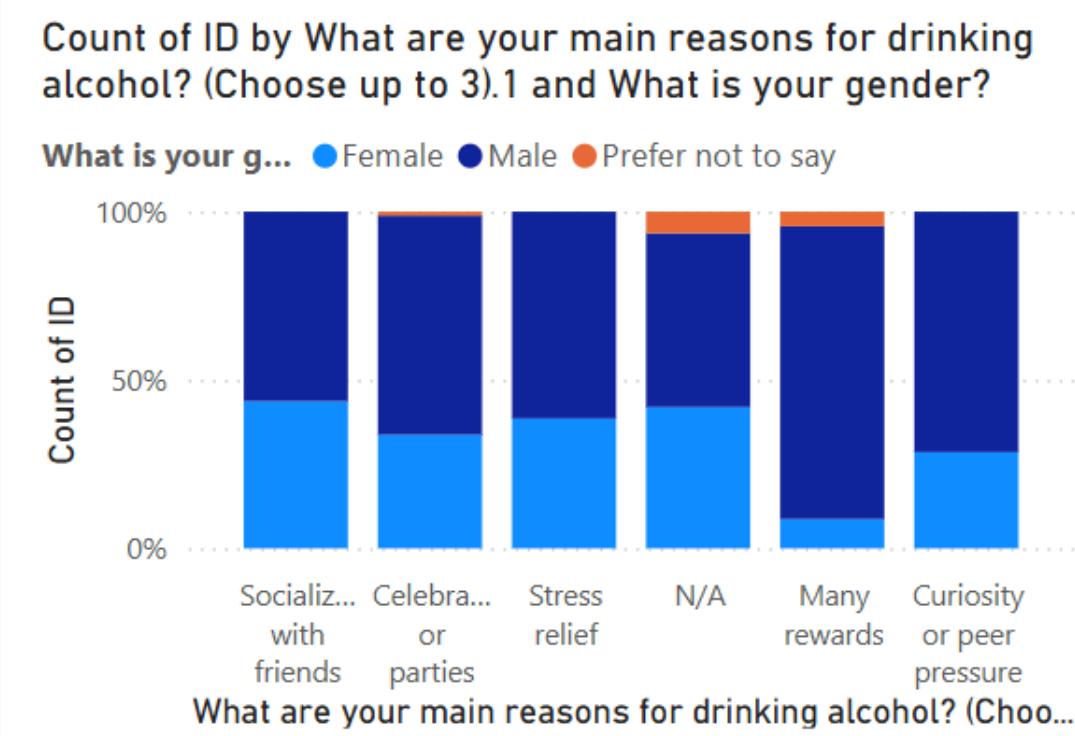
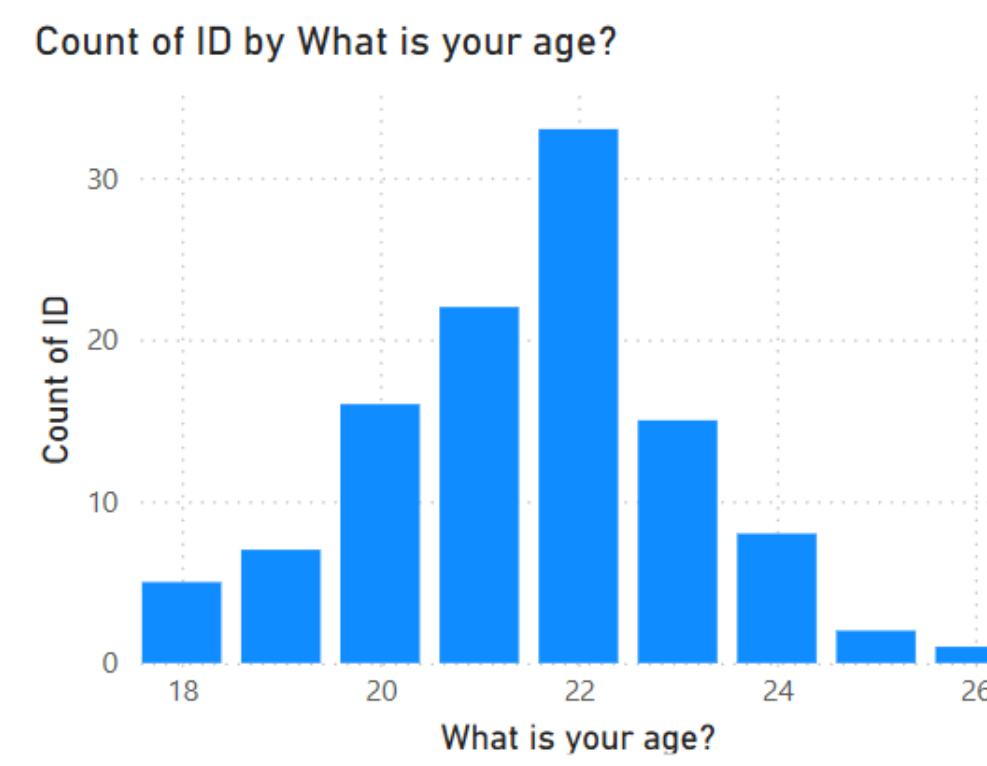
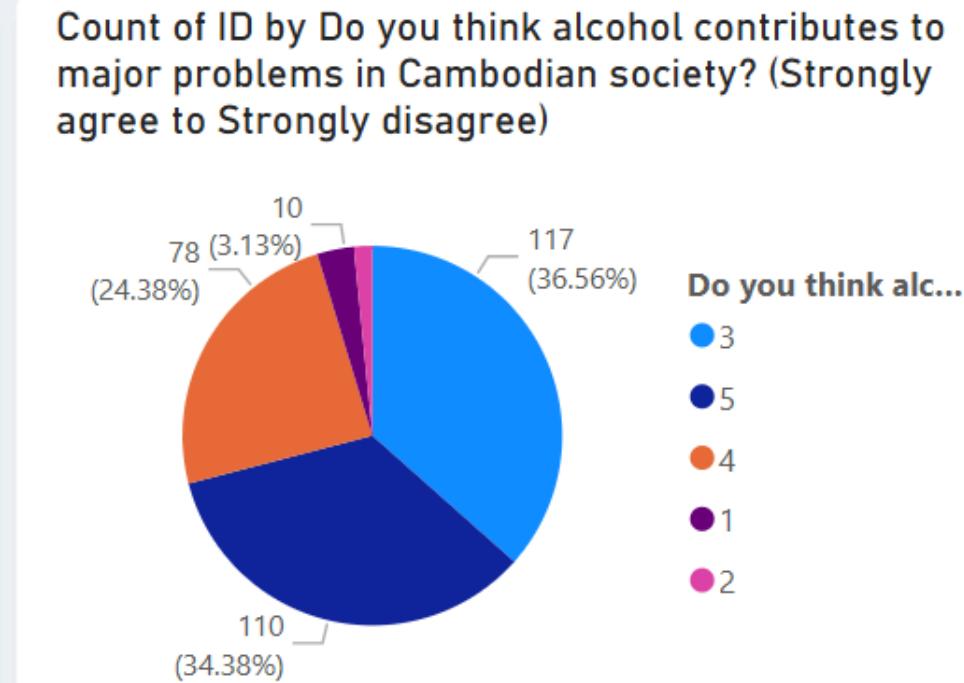


What is your gender? ▾

- Female
- Male
- Prefer not to say

Do you drink alcohol? ▾

- Maybe
- No
- Yes



Have you ever regretted dri... ▾

- Maybe
- No
- Yes

Contribution and essiness



Conclusion

In conclusion, this analysis offers valuable insights into alcohol consumption patterns among youth and young adults in Cambodia. The findings highlight that beer is the most commonly consumed type of alcohol, with socializing, stress relief, and celebration being the top reasons for drinking. Most participants are aware of the health risks associated with alcohol, yet many still consume it regularly, especially in urban areas like Phnom Penh. The results suggest a need for targeted awareness campaigns, especially for young people, to promote healthier choices. While the data provides a useful snapshot, further studies with broader, more diverse samples are needed to better inform policies and interventions aimed at reducing alcohol related harm in Cambodian society.





THANK YOU

FOR YOUR

ATTENTION