

# Lab X: Title

STAT 20 Spring 2022

## Part I: Understanding the Context of the Data

1. What is the unit of observation in our survey data?
2. What is the data type of X, Y, and Z?
3. What values would you expect `major` to take? Do you anticipate any challenges analyzing this data?
4. Please sketch the relationship between X and Y, being sure to label the axes and the axis tick marks. What aesthetic mappings did you use? Which geometry?
5. Please sketch the relationship between X and Y, being sure to label the axes and the axis tick marks. What aesthetic mappings did you use? Which geometry?

## Part II: Computing on the Data

1. What is the relationship between year (first year vs second/third/fourth year) and favorite boba place?
2. What is the relationship between favorite season and preference for beach or mountains?
3. Among those who have had previous coding experience, what languages are most common? Do the proportions of languages used differ by major?
4. Which boba place is the most popular among students who prefer tea over coffee?
5. We are back on campus starting Jan 31. Based on the survey, do you think most students expected this outcome? Why?
6. Among students whose favorite season is winter, which Winter Olympic sport do they enjoy the most? Which do they enjoy the least? Justify your answer with visualization.
7. Group the students based on whether they believe hotdogs are sandwiches. What proportion of each group prefer fighting a horse-sized duck? Do you think the two questions are associated?
8. How many second-year students gave an opinion of 7 or above to the Cryptocurrency statement?
9. What is the relationship between major (Health/Pre-Med and non Health/Pre-Med) and degree of belief that COVID will keep us remote for two weeks plus?
- 10.

## Part III: Extensions