Exercise: Mastering `stat_summary()`

Overview

This exercises provides some practice working with the `stat_summary()` function for creating aggregated layers of plots. This exercise is designed to be completed in 30 minutes or fewer. Although you should have time to complete the parts, if you are unable, *as with all exercises*, *you are encouraged to complete it outside of class time* so that you are able to incorporate your experiences and knowledge into future exercises. You may need to consult course reading materials located at the course site as some elements may not have been covered in the basic content contained in associated videos. If you would like to acquire extra credit for your work, you can send me a knit html file of what you have accomplished by end of week.

This exercise utilizes your understanding of `{ggplot2}` functions like `ggplot()`, `geom_point()`, `geom_bar()`, `aes()` and `stat_summary()`. Collaborate with others and reference readings if necessary.

This exercise focuses on:

- Working with project data
- Creating aggregation layers of plots

Parameter Tips: - `fun` computes single-value summaries - `fun.data` uses functions to returning a data frames; built-in functions and custom functions work differently - `fun.min` and `fun.max` compute range boundaries

Data Set

Practice with your team data.

Problem 1: Basic Summary Plot

Create a point plot showing the mean of a continuous variable across categorical groups.

Requirements:

- x-axis: Categorical variable with 3-5 groups
- y-axis: Continuous measurement variable

Problem 2: Basic Summary Plot with Dispersion

Create a point range plot showing the mean and standard deviation of a continuous variable across categorical groups.

Requirements:

- pass a built-in function to `stat_summary()`
- x-axis: Categorical variable with 3-5 groups
- y-axis: Continuous measurement variable

Problem 3: Summary Plot with Dispersion

Create a point range plot showing the mean and standard deviation of a continuous variable across categorical groups.

Requirements:

- write a summary function and pass that to `stat_summary()`

- x-axis: Categorical variable with 3-5 groups
- y-axis: Continuous measurement variable