# **Project 2 Peer Grading Instructions**

There is no example solution for Project 2, as each student is choosing their own questions. If you want to have a sense of what a project overall should look like, you can review the example project for Project 1 or the Project 1 solutions.

Please grade according to the published grading rubric, making your best judgement. If you're really unsure about something, feel free to ask in the discussion forum on Canvas or each out to the instructors.

Here, we just provide some general items to pay attention to while grading.

#### Questions

Make sure the questions are open-ended and are actual questions. Please **do not** consider whether the questions led to interesting insights about the data. The questions may have been fine but the answer was just not that interesting. That is Ok.

This is an open-ended question (Ok): Does the total number of attempted climbs change over time?

This is not a question (**not Ok**): *Make a scatter plot of the total number of attempted climbs versus time.* 

This is a question but it is not open-ended; it prompts a specific analysis (**not Ok**): In a scatter plot of the total number of attempted climbs versus time, do the points fall onto a line with positive slope?

Note that the specific question used here as an example, whether the total number of attempted climbs changes over time, is disallowed per project instructions.

#### Introduction

• For full points, the specific data columns that will be used in the analysis should be listed and explained.

## Approach

• There should be some justification for *why* the chosen visualizations are appropriate for the respective data and question. 1-2 sentences are sufficient for each plot.

## Analysis

- Two figures total are necessary for full points. The two figures should be of different type.
- At least one of the two figures needs to use color mapping (color is used to differentiate different data values) or faceting.
- There should be some data wrangling code, and it needs to use at least three different data manipulation functions that modify data tables. See instructions for detail or ask instructors if you're unsure about this.
- All R code should be legible and contain some helpful comments.

- Axes need to be cleaned up and labeled properly for full points. In particular, no R code should be displayed as the axis title.
- All figure labels need to be legible. If labels overlap or are super tiny and not legible then points should be deducted.
- For color coding, default color palettes provided by ggplot2 or by the colorspace package are fine. Students do not have to develop their own color palette.
- There needs to be some modification of the plot theme (using the theme() function). Just using an out-of-the-box theme (such as theme\_bw()) is not sufficient. The modification can be as simple as changing the background color of the plot.
- Do not grade on whether you think the figure is ugly in terms of color choice and styling. As long as the figure is legible it deserves full points. However, if the styling interferes with legibility then point deductions are appropriate.
- Figure width and height should be chosen appropriately for the respective figures.

## Discussion

• A qualitative, high-level discussion of what patterns are visible in the plots is sufficient. Statistical tests are not required.