Week 3 DS Recitation Part 1

SIBDS 2024 @ Columbia

11 June, 2024

Getting Started

Tasks:

1. Create a new R project and named it `Week 3 DS Recitation`
2. Put the `week_3_DS_recitation.Rmd` file into the same folder of the R project you just created.
3. Modify the YAML header as follows:

```
---
title: "Week 3 DS Recitation"
date: "11 June, 2024"
author: "SIBDS 2024 @ Columbia"
output:
  html_document:
    toc: true
    code_folding: "show"
---
```

Now, knit this `.Rmd` file to make sure it runs as expected.

4. Finally, create a folder within the project folder named `data`. Put the data files we downloaded in Tuesday's class in to this folder.

Writing with Data

Tasks:

1. Write a named code chunk names `sample_df` that creates a dataframe comprised of
    - `random_vec` : A `numeric` variable containing a random sample of size `500` from a normal variable with mean `1` and standard deviation `3`.
    - `logical_vec` : A `logical` vector indicating whether each sampled value is greater than zero, can you do it in the simplest way?
    - `abs_vec`: A `numeric` vector containing the absolute value (using `abs()`) of each element.
2. Produce a histogram of the absolute value variable just created.
3. Fill in the blank using the in-line code giving the mean, median, and standard deviation of `random_vec` (*Hint*: you may need to use the `pull()` function in `tidyverse`):

- Mean: REPLACE THIS BY YOUR CODE
- Median: REPLACE THIS BY YOUR CODE
- SD: REPLACE THIS BY YOUR CODE