Homework 4

For this assignment please submit to Canvas your GitHub user name / your repository name (e.g., `benkeser/my_project_repository`).

Update your GitHub repository to adhere to principles of project organization that we have discussed in class. In particular,

- Your project directory should have a coherent folder structure. I.e., you should not have data/code/Makefile/README all stored in a single folder.
- Your project directory should include a `Makefile`. The first recipe included in the `Makefile` should produce your R Markdown report.
- Your project code should not contain any absolute file paths. It should instead use the `here` package to appropriately define file paths.
- Your project directory should include an `renv.lock` lockfile that records information on all packages needed to compile your report. The directory should also include all additional `renv` associated files (i.e., `renv/activate.R` and `.Rprofile`).
- Your project code should adhere as best as possible to the coding guidelines we have been discussing (e.g., self-documenting code, comments describing why and not what the code is doing, variables with informative names, etc...)
- Your project directory should include a `README.md` that includes instructions for how to produce your report (e.g., description of how to `restore` the package environment, what `make` command to run to produce the report, etc...).

After the assignment due date, your repository will be peer-graded. To peer grade, you should complete each of the following:

- Fork the assigned repository
- Clone the repository
- Read the `README.md` instructions to understand the project organization (~ 5 minutes)
- Read the `Makefile` to understand the components of the analysis (~ 5 minutes)
- Restore the package environment using `renv`
- Browse the source code associated with the project (all `Rmd` and `R` files) for ~10 minutes.
- Use `make` to generate your peer's report.

To complete the peer review, file an issue on your peer's repository. The issue should include a task list indicating which of the assignment requirements are completed in the repository. You should copy the code below into a GitHub comment and replace `[ ]` with `[x]` to indicate the item is completed.

```
- [ ] The repository contains an informative README.
- [ ] The repository contains a coherent organization structure.
- [ ] The repository includes a Makefile.
- [ ] The repository contains an renv.lock file.
- [ ] The repository adheres to best practices for coding.
- [ ] I was able to restore the package environment.
- [ ] I was able to build the project report.
```

If a box is not checked, provide comments on why. An example peer graded issue is shown below:

```
- [x] The repository contains an informative README.
- [ ] The repository contains a coherent organization structure.
    - All files are included in a single directory, which makes it difficult to find relevant files.
- [x] The repository includes a Makefile.
- [x] The repository contains an renv.lock file.
- [ ] The repository adheres to best practices for coding.
    - Variables are not always given informative names and the code contains too many comments.
- [x] I was able to restore the package environment.
- [ ] I was able to build the project report.
    - I ran into an error that said: package 'ggplot2' not available.
```

After you have submitted your issue on GitHub, **copy the link to the issue** into a comment on Canvas.

You will be graded based on the following scale:

- Does the project have an informative README (3pt)
- Does the project contain a Makefile (3pt)
- Is the project organized (3pt)
- Does the project contain `renv`-associated files (3pt)
- Did the peer reviewer note any file path-related errors (1pt)
- Can the package environment be restored by the peer grader (1pt)
- Does the repository adhere to best coding practices (1pt)
- Was the peer review completed on time (issue filed on GitHub and linked as a comment in Canvas)? (5pt)