

# Project Guidelines

## Code-a-thon Project Template

This project is intended to help you apply your skills in R in a way that would be conducive for collaborating or creating reproducible analyses.

### Data Used

Identify a dataset to analyze. Remember that if you share the data you must **not violate any privacy restrictions**.

If you don't have your own data, options for places to find data are listed on <https://daseh.org> (<https://daseh.org>).

You might start by setting up an R Project, importing your data, previewing the data, etc.

**describe** what your data looks like and **where** you got it. Identify what the variables and samples are, or point to a data dictionary. Describe how the data was originally created.

### Data Cleaning/Wrangling

Perform any data subsetting, cleaning, or manipulation methods that were described in this course on your data. Examples are: renaming the columns, recoding values, reshaping the data, filtering the data etc.

You might also research other methods to include here, especially if your data is very unique.

### Data Visualization

Create some visualizations of your data using the esquisse app or the ggplot2 package.

### Data Analysis

Perform a **simple analysis** of your data. This can involve summarizing the data to describe aspects about it (quartiles, means, range etc.) or a simple statistical test.

Don't forget to describe what analysis you performed and why. Provide some simple **interpretation** about what your analysis might indicate about your data.

## Please include additional sections as desired.

### Versions

Include some information about the version of R and the packages you are using by running sessionInfo().

```
sessionInfo()
```

```
## R version 4.5.0 (2025-04-11)
## Platform: x86_64-pc-linux-gnu
## Running under: Ubuntu 24.04.2 LTS
##
## Matrix products: default
## BLAS:    /usr/lib/x86_64-linux-gnu/openblas-pthread/libblas.so.3
## LAPACK:  /usr/lib/x86_64-linux-gnu/openblas-pthread/libopenblas-p0.3.26.so;  LAPACK version
3.12.0
##
## locale:
## [1] LC_CTYPE=en_US.UTF-8      LC_NUMERIC=C
## [3] LC_TIME=en_US.UTF-8       LC_COLLATE=en_US.UTF-8
## [5] LC_MONETARY=en_US.UTF-8   LC_MESSAGES=en_US.UTF-8
## [7] LC_PAPER=en_US.UTF-8     LC_NAME=C
## [9] LC_ADDRESS=C              LC_TELEPHONE=C
## [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
##
## time zone: Etc/UTC
## tzcode source: system (glibc)
##
## attached base packages:
## [1] stats      graphics   grDevices utils      datasets  methods   base
##
## other attached packages:
## [1] here_1.0.1           directlabels_2024.1.21 patchwork_1.3.0
## [4] plotly_4.10.4         scales_1.4.0            emoji_16.0.0
## [7] knitr_1.50            janitor_2.2.1          broom_1.0.8
## [10] esquisse_2.1.0        ThemePark_0.0.1        naniar_1.1.0
## [13] lubridate_1.9.4      forcats_1.0.0          stringr_1.5.1
## [16] dplyr_1.1.4           purrr_1.0.4            readr_2.1.5
## [19] tidyverse_1.3.1       tibble_3.2.1           ggplot2_3.5.2
## [22] tidyverse_2.0.0
##
## loaded via a namespace (and not attached):
## [1] writexl_1.5.4           readxl_1.4.5           datamods_1.5.3
## [4] rlang_1.1.6              magrittr_2.0.3          snakecase_0.11.1
## [7] rio_1.2.3                e1071_1.7-16            compiler_4.5.0
## [10] systemfonts_1.2.2       vctrs_0.6.5             quadprog_1.5-8
## [13] sysfonts_0.8.9          pkgconfig_2.0.3          crayon_1.5.3
## [16] fastmap_1.2.0            backports_1.5.0          labeling_0.4.3
## [19] utf8_1.2.4               promises_1.3.2          phosphoricons_0.2.1
## [22] rmarkdown_2.29            tzdb_0.5.0              visdat_0.6.0
## [25] ragg_1.4.0                bit_4.6.0                xfun_0.52
## [28] showtext_0.9-7            cachem_1.1.0            jsonlite_2.0.0
## [31] later_1.4.2               parallel_4.5.0          R6_2.6.1
## [34] bslib_0.9.0                stringi_1.8.7            RColorBrewer_1.1-3
## [37] shinybusy_0.3.3           jquerylib_0.1.4          cellranger_1.1.0
## [40] Rcpp_1.0.14                clisymbols_1.2.0          httpuv_1.6.15
## [43] timechange_0.3.0           tidyselect_1.2.1          rstudioapi_0.17.1
## [46] yaml_2.3.10                curl_6.2.2                shiny_1.10.0
## [49] withr_3.0.2                evaluate_1.0.3            proxy_0.4-27
## [52] getopt_1.20.4               zip_2.3.2                pillar_1.10.2
## [55] KernSmooth_2.23-26          generics_0.1.3            vroom_1.6.5
## [58] rprojroot_2.0.4              hms_1.1.3                xtable_1.8-4
## [61] class_7.3-23                glue_1.8.0                toastui_0.4.0
## [64] lazyeval_0.2.2               tools_4.5.0                data.table_1.17.0
## [67] reactable_0.4.4              grid_4.5.0                optparse_1.7.5
## [70] crosstalk_1.2.1              showtextdb_3.0            cli_3.6.5
```

```
## [73] config_0.3.2          textshaping_1.0.0    viridisLite_0.4.2
## [76] gtable_0.3.6           sass_0.4.10       digest_0.6.37
## [79] classInt_0.4-11        htmlwidgets_1.6.4   farver_2.1.2
## [82] htmltools_0.5.8.1      lifecycle_1.0.4    httr_1.4.7
## [85] shinyWidgets_0.9.0     mime_0.13         bit64_4.6.0-1
```

Render your document to an html or pdf using the “Knit” button.