

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-p-r0.3.26.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] tidyr_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    http_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.