
PROGRAMMING FOR COGNITIVE SCIENCE

Laboratory 5: Rmarkdown

Tasks:

Task 1.

Load the `Hitters` dataset from the `ISLR` package. Create an R Markdown report containing the following:

- a) The title, the author field with your name, and the date of creation.
- b) A summary of the basic statistics concerning the players' entire career.
Hint: Names of columns concerning the entire career start with "C".
- c) A scatter plot with two panels created in `ggplot2` with the players' salaries in relation to the number of runs, where dots should be coloured by league and one panel should show the E division, the other the W division. The black-white theme should be used and the `Dark2` colour palette.
- d) A violin plot with two panels created in `ggplot2` with the players' number of runs in different divisions. One panel should show the A league, the other the N league. The plots should be coloured according to the division, with a transparency level equal to 0.8. The light theme (`theme_light`) should be used and the `Set1` colour palette.
- e) A 2x2 table summarising the number of players in the leagues and divisions.
- f) A 2x2 table summarising the number of players in the leagues at the end of 1986 (`League`) and the beginning of 1987 (`NewLeague`).
- g) Statistical test results verifying the association between leagues at the end of 1986 (`League`) and the beginning of 1987 (`NewLeague`).

Each of the above items should be a separate R Markdown section with an appropriate title and description. The report should be compiled to an HTML file.