

Regression Analysis

Fall 2023, Lab 1

Due September 15th (Friday)

Prepare a short report with relevant output, your comments, and answers to the questions (this does not need to be exhaustive or polished, but should contain enough to show that you completed all tasks and analyses). Submit the report at cybercampus with one pdf file using R markdown

YOU ONLY NEED TO SUBMIT ONE PDF FILE INCLUDING YOUR CODE AND RESULT!

The dataset *record.txt* contains running records obtained from athletes from different countries in various types of athletics events (sprints and middle-distance).

We have data about 55 countries (observations) and 6 records (variables): 100 meters, 200 meters, 400 meters, 800 meters, 1500 meters and 3000 meters.

- Load the dataset *record.txt* in R, using the function *read.table*
- Produce summaries of the variable *m800*, including
 - Numerical summaries: average, standard deviation, median and quartiles, maximum and minimum, interquartile difference
 - Graphical summaries: histogram and boxplotWhat can you observe about the variable distribution?
- Produce scatter plot between all the variables(*m100*, *m200*,*m400*,*m800*,*m1500*,*m3000*). What can you observe from the scatter plot? Are they correlated?

If you finish all the previous material, please go through all the functions in *introR.r* file. All these functions are very useful for future study.

