

R Scripting

Lab for unit 4 - Structured programming

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Please solve the following problems!

1. Go to the `tapply()` chapter of the “Apply And Friends” notebook. There we used (among other things)
 - `with(Y, tapply(hp, am, summary))` to calculate summary statistics for variable `hp` separately for the two levels of `am` and
 - `with(Y, tapply(hp, list(am, vs), mean))` to calculate the mean horsepower value for all four possible combinations of `am` and `vs`
- a. Suppose we wish to compute `summary` for all four possible combinations of `am` and `hp`. What does the result look like if we use `tapply()` for this task? Can you extract the four different summaries?
- b. Instead of `tapply()`, we could have used convenience function `by()` (see `?by`). Utilize this function in order to get the same results as given by `tapply()`, but returned in a more suitable way.
- c. We already got to know another function that can be used for such problems (Hint: Have a look at the exercise sheet in unit “Data Structures (II)”). Can you also utilize this function to get the same results?