

Data science with R: tidyverse

VIII Tidy Evaluation: rlang

Assignment

In this assignment we will create some basic functions with **rlang** and other libraries from **tidyverse**! Create *R* script called *assignment_8.R*.

Exercise 1

Create a function "**count_freq**" that:

- takes a data frame
- creates frequency counts
- before counting is applied the function does the grouping (only one grouping variable is used in the function call!)
- at the end function renames variables in the output table
- grouping variable is called "**x**"
- frequencies variable is called "**freq**"

Exercise 2

Create a function "**draw_bar_plot**" that:

- takes the output of function "**count_freq**" (from **Exercise 1**)
- draws a bar plot
- where variable "**x**" is used on **x axis**
- variable "**freq**" is used on **y axis**
- you can use **geom_col** instead or **geom_bar** (your choice)

Exercise 3

Create a function "**prepare_diamonds_data**" that:

- takes **diamonds** data frame
- randomly selects n diamonds
- creates variable called "**volume**"
- where: $volume = x \times y \times z$

Exercise 4

Create a function "**explore_diamonds**" that:

- takes the output of function "**prepare_diamonds_data**" (from **Exercise 3**)
- draws scatter plot
- where variable "**carat**" is used on **x axis**
- variable "**price**" is used on **y axis**
- variable "**volume**" is used for **point size geom_bar** (your choice)
- variable "**color**" is used for **point color**
- add plot title and axis titles as function arguments
- add custom plot theme inside the function