

Exercise 1 - Descriptive Statistics in R

The dataset `Ex02-1-age-per-country.csv` contains the ages of 100 randomly selected people of three different countries A , B and C . Describe the age distribution in the three countries by calculating the statistical measures listed below and discuss possible differences between the countries.

Preparation: Set up a project folder for this tutorial, where you save both the downloaded dataset `Ex02-1-age-per-country.csv` and the code template `Ex02-1-template.R` from Moodle.

a) Central tendency:

(i) Arithmetic mean

(ii) Median

Additional question: Compare the arithmetic mean and the median per country. What does the difference say about the age distribution?

b) Variability:

(i) Range

(ii) 1st and 3rd quartile

(iii) Interquartile range

(iv) Sample variance

(v) Coefficient of variation

c) Graphical representation:

Plot the age distribution for each country using boxplots and histograms. Do the distributions look like you expected them to be (regarding the skewness)?