

## Data Analysis Report Structure

1. **Data description:** data source, data size (number of variables, number of observations), make a list/table of variable indicating their type (qualitative, quantitative). Be explicit about which variable is the outcome/response variable (y) and which variables are predictors/explanatory variables (x)
2. State **goal** of the analysis and **statistical hypothesis** (i.e. what is tested)
3. Provide **descriptive statistics** of some or all variables (use median and interquartile range for skewed data; use mean and standard deviation for symmetric data), check for outliers (use 1.5IQR rule), compute percentiles/quantiles when they are informative
4. **Graphical statistics** (histograms, boxplots, scatterplots, diagrams)
5. **Check associations** between the explanatory variables (x) and the outcome (y), as well as among the explanatory variables themselves. (*Hint: Associations can be assessed visually using graphics such as pairwise scatterplots or heatmaps, or numerically using correlation measures.*)
6. **Describe the model** mathematically and explain the **estimation method** used during model fitting.
7. **Present the results** of the fitted model, including parameter estimates, confidence intervals, p-values, and other relevant statistics (e.g.,  $R^2$ ).
8. **Interpret the results** in the context of the stated hypothesis.
9. **Attachment:** R code for each section (if relevant), with included comments. I should be able to reproduce your results
10. **Submit data.** I should be able to reproduce your results