

# Requirements and general Information – Case Studies

## Documentation

Please download the task assigned to your group from ISIS. The task is subdivided in Case Study and general tasks. You also need to download the folder “Data” provided on tubcloud (Link in ISIS).

Start a new project in R (.Rproj) and name it according to the following pattern:

**“Case\_Study\_Group\_<Groupnumber>”.**

All steps of your data analysis process have to be **documented reasonable** in two R-Markdown documents which have to be named “Case\_Study\_<Groupnumber>” and “General\_Tasks\_<Groupnumber>”. Add to your submission the R-Markdown documents and the knitted HTML-Version. The Shiny-Application must have its own file named “Case\_Study\_App\_<Groupnumber>”.

The documentation has to contain all used code chunks for each step of your process. This is needed for evaluation of your approach. The written code has to be **fully functional** and has to result in your final data frame. Remember that the data frame has to be **tidy** according to the **three rules** you learned during the course.

Warnings and additional information have to be **suppressed**. The code has to be commented in such manner that the documentation comprehensive, also by non-specialists like management staff. **Dysfunctional code** will not be evaluated and will result in **zero points** for this part. For working on your task copy the folder “Data” into your project. The original data is not allowed to be manipulated.

## General Tasks

The first task in this section is to appoint a distribution function to the calculated data. There is sufficient information on the Internet about various statistical test procedures for determining distribution functions, which are also available in R. It is expected that you read yourselves into the topic and carry out the **appropriate tests** independently. All tasks form the “General Tasks” have to be documented in the R-Markdown document named **“General\_Tasks\_Group\_<Groupnumber>”**. Do not forget to add the commented code chunks.

## Note

The case study is graded as a group work. A corresponding communication in the group and a meaningful division of work makes the accomplishment of the task considerably easier. However, it happens occasionally that individual group members are not involving in the group work. Clarify such problems early in the group. If there is no solution, inform us as **early as possible** (if possible in **first two weeks** of the case study) that we can solve the problems quickly and the group does not suffer any disadvantages.

Questions that arise can often be answered in relevant forums. The internet is full of ideas, solutions and workarounds. Should, despite all this, unsolvable problems arise during your work, make an appointment early with us.

## Checklist

Your submission should include **at least** the following object and have to be **named according** to the illustration in the task sheet and the illustration above:

- A .rproj file
- Two R-Markdown documents (one for the case study, the other for the general tasks)
- Two HTML files generated from the R-Markdown documents
- One Shiny-Application for the case study

- Any additional files (datasets, images, graphics, CSS, HTML files, etc.), which are required to execute the R markdown and the Shiny apps are stored in the folder **“Additional\_Files”**
- The final data set of the case study in .csv format
- An **empty** "Data" folder to which the paths used in the code refer
- Check if the app runs without any adjustments on another machine. If adjustments need to be made, you'll get loss in points.

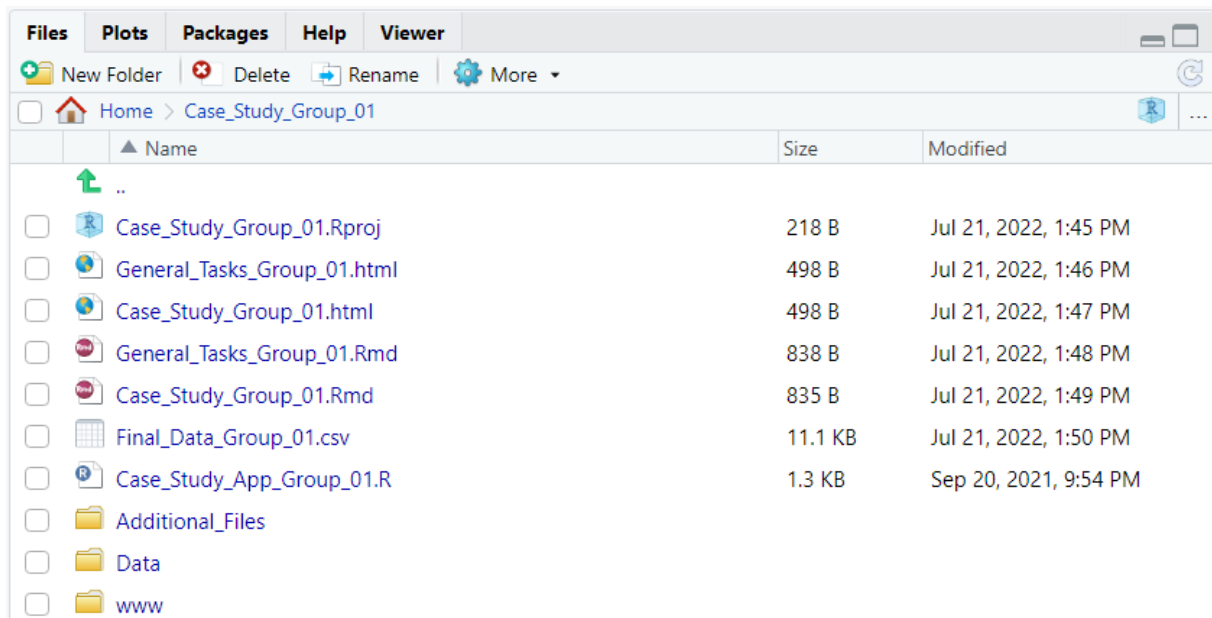
Do **not** add the files we have provided to the submission. For the execution of the code during presentation, we will put the required data into the "Data" folder. For this reason, define appropriate paths to the files in your code.

For submission you have to compress the files into one .zip-folder named:

**“<Groupnumber>\_SoSe2022\_IDA\_CaseStudy”**

Here an example for Group 01:

**01\_ SoSe2022\_IDA\_CaseStudy**



## Submission

The case study has to be submitted by **23:59 o'clock on 16<sup>th</sup> September 2022** the latest. A link to an upload folder is provided on the ISIS page.

The link expires after the deadline. Late submissions will not be accepted for evaluation. Please upload only one folder per group.

Good luck!