

# Requirements and general Information – Case Studies

## Documentation

Please load the task assigned to your group from the TUBcloud server. The task is subdivided in Case Study and general tasks. You also need to download the folder “Data”.

Start a new project in R 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. The have to be named Case Study and General Tasks. The Shiny-Application can be integrated into the R-Markdown document of the Case Study. Add to your submission the R-Markdown documents and the knitted HTML-Version of the documents.

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 lecture.

Warnings and additional information has to be **suppressed**. The code has to be commented. So that the documentation can be comprehended 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, most of 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 in **first two weeks** of the case study so 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 below:

- 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\_...**”

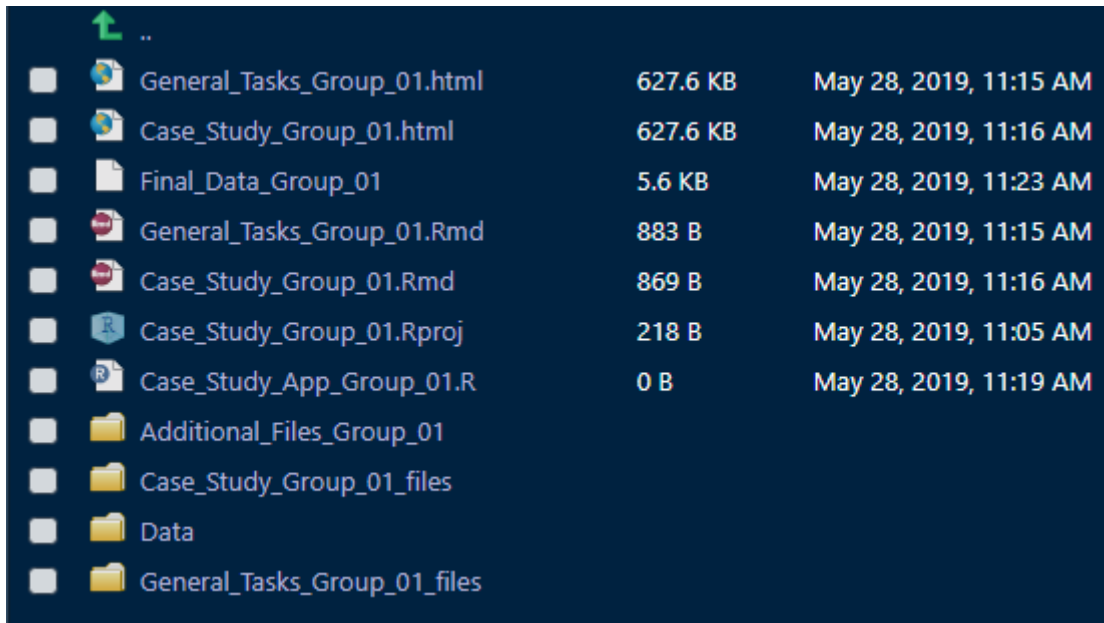
- The final data set of the case study in .RData format
- An empty "Data" folder to which the paths used in the code refer
- The additional folders "...\_files" will be created when the HTML-Documents will be generated

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

**"<Groupnumber>\_SoSe19\_IDA\_CaseStudy"**

Here an example for Group 01:

**01\_ SoSe19\_IDA\_CaseStudy**



File/Folder	Size	Modified
General_Tasks_Group_01.html	627.6 KB	May 28, 2019, 11:15 AM
Case_Study_Group_01.html	627.6 KB	May 28, 2019, 11:16 AM
Final_Data_Group_01	5.6 KB	May 28, 2019, 11:23 AM
General_Tasks_Group_01.Rmd	883 B	May 28, 2019, 11:15 AM
Case_Study_Group_01.Rmd	869 B	May 28, 2019, 11:16 AM
Case_Study_Group_01.Rproj	218 B	May 28, 2019, 11:05 AM
Case_Study_App_Group_01.R	0 B	May 28, 2019, 11:19 AM
Additional_Files_Group_01		
Case_Study_Group_01_files		
Data		
General_Tasks_Group_01_files		

Do not add the files from the folder "Data" to your submission under any circumstances. For evaluation we will add the data manually to the assigned folder.

Good luck.