

MT5000 Data Analytics & Visualisations

Instructions for the Assignment 3 – R Markdown Report

Context

Thanks to the submission of your report made with Jamovi, you have successfully helped Ireland to stop the COVID-19 pandemic. The National Public Health Emergency Team (NPHE) wants to keep your report in an electronic format at the National Library of Ireland to reproduce it again with new data if a new pandemic hits. Unfortunately, the current .pdf format is not reproducible and only a .Rmd format (R Markdown) is accepted.

Task

Use the document submitted for the assignment 2 to **create the content of a .Rmd academic report**:

- **The text and hypotheses can be an exact copy-paste of the text you have submitted in the assignment 2** which includes a short abstract, a short literature review with no more than 5 references which ends with your hypotheses, a method section presenting your data (but no need to represent the model or to represent the equation), a result section including descriptive statistics and inferential statistics, a discussion and conclusion section which examines the hypotheses and their results, and a reference section listing the academic papers used in your document. It can also be a modified version of the text already submitted but modifications are not required.
- In term of code, in addition to the first setup code chunk that includes your libraries, options and data object creation (with the `read.csv()` function), this .Rmd report have to include:
 1. **At least one code chunk containing the code to create a table** with the package `{kableExtra}`
 2. **At least one code chunk containing the code to create a figure** with the function `ggplot()` contained in the package `{tidyverse}`
 3. **At least one code chunk containing the code to test a model with the `lm()` function** (the model has to test the hypotheses previously formulated)

The report should “knit” in an output document (.pdf format or .html format if preferred) without error but **only the .Rmd file will be submitted and assessed**.

Assessment Criteria

The assessment criteria are the following:

- **Presence of the following:** abstract, literature review, method section, result section, discussion and conclusion section, and reference section (used in your previous assignment or new)
- **Inclusion of a table relevant to your analysis and created with the package `{kableExtra}`**
- **Inclusion of a figure relevant to your analysis and created with the function `ggplot()` contained in the package `{tidyverse}`**
- **The test of a model corresponding to the formulated hypotheses with the `lm()` function**

Report Submission

1. On the MT5000 Loop page, section Assignment.
2. A .Rmd file.
3. By Sunday May 2nd, 2021.