

GY7702 Assignment

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Introduction

This document was created to meet the requirements of GY7702 R for Data Science at University of Leicester. It was designed and created in R Markdown, a markup language that allows users to create documents that can be formatted to embed code blocks, code outputs and hyperlinks. When the R Markdown file is compiled, the markup language is hidden and the document is displayed in plain text.

This content was created using [R](#), [Rstudio](#), [RMarkdown](#) and [GitHub](#).

For further information regarding the source code, data and libraries used in this assignment, please see the project's GitHub page at <https://bit.ly/3arpcv8> (created using [Bitly.com](#)).

Materials

The libraries used in this assignment:

```
library(tidyverse)
library(palmerpenguins)
library(dplyr)
library(knitr)
library(kableExtra)
library(readr)
library(tinytex)
library(lubridate)
library(gridExtra)
library(ggplot2)
```

Contains public sector information licensed under the [Open Government Licence v3.0](#): covid19_cases_20200301_20201017.csv and lad19_population.csv. See also [Coronavirus \(COVID-19\) in the UK](#) and [Office for National Statistics](#).

References

The student would like to acknowledge that this document includes teaching materials from Dr Stefano De Sabbata for the module [GY7702 R for Data Science](#). Stefano's teaching materials can be found [here](#)

R for Data Science by Garrett Golemund and Hadley Wickham, O'Reilly Media, 2016. [See online book](#)

Note to reader

Where a function is mentioned for the **first time**, a brief explanation will be given before the code block. Thereafter, this explanation will be dismissed.

Question 1

A vector of 25 numbers between 1 and 7 are listed below. These values represent answers to a survey question

```
## NA 3 4 4 5 2 4 NA 6 3 5 4 0 5 7 5 NA 5 2 4 NA 3 3 5 NA
```

- 1 = Completely disagree
- 2 = Disagree
- 3 = Somehow disagree
- 4 = Neither agree or disagree
- 5 = Somehow agree
- 6 = Agree
- 7 = Completely agree
- NA = missing value

Question 1.1

Write the code necessary to check whether all participants to the survey either completely disagree or completely agree, once the missing values are excluded

```
#code
```

```
#code
```

Question 1.2

Write the code necessary to extract the indexes related to the participants in the survey who at least somehow agree or more.

```
#code
```

Question 2

...

Question 3

...

Question 4