Please download the data set `R05_assignment_dataset.csv`. Load it into your `R` session as a data frame `df`. Use the parameter `stringsAsFactors` to convert character strings to factors automatically:

```
> df = read.csv("R05_assignment_dataset.csv", stringsAsFactors=TRUE)
```

The data set contains the perceived stress of a random German sample of working citizens. The perceived (subjective) stress of each subject was measured at multiple measure time points:

- October 28, 2019
- December 28, 2019
- February 28, 2020
- April 28, 2020

Task 5.1 (Exploring the data set and transforming formats).

(a) How many subjects does the data set contain?

(b) How are the different measure time points encoded?

(c) Briefly explain why the data set `df` is in **long** format.

(d) Transform the data frame `df` into a new data frame `df_wide` which has **wide** format.

(e) Transform the new data frame `df_wide` into another new data frame `df_long` that has **long** format again. Verify that `df` and `df_long` are equal with the following line of code:

```
> all(df == df_long)     # should return TRUE
```

Task 5.2 (within-subject ANOVA).

In this task, you will investigate the subjects' perceived stress in the sample with a repeated measures within subject ANOVA. Keep in mind that you have the data in both **long** and **wide** format. Choose the appropriate (or more convenient) format for each subtask as you please.

(a) Perform the ANOVA with `afex::aov_ez()`.

(b) Interpret the results.

(c) Create a visual report using `ggplot2` with:

- Bars for the mean of each measure time point (without error bars),
- proper axes labels,
- appropriate limits of the $y-$axis,
- a descriptive title, and
- a neutral theme.

Please solve the assignment in the `.Rmd` format and export it in a suitable format (e. g. `pdf` or `html`)