Please download the extended data set `R02_assignment_dataset.csv`. Load it into your `R` session as a data frame `df`:

```
> df = read.csv("R02_assignment_dataset.csv")
```

Task 2.1 (Exploring bivariate structures).

In this task, we will perform an exploratory analysis of the correlation structure in the data set.

(a) Choose **ten** metric variables that are of interest to you. Use the function `select()` to create a new data frame `df_exp` that contains only these ten variables. This will be your data frame for the subsequent exploratory analyses.

(b) Investigate the correlation matrix of `df_exp` with the functions `cor()` and `corrplot()`:

  (i) Create a black-and-white `corrplot` that shows the correlation coefficients r_{xy} and no colorbar.

  (ii) Create a `corrplot` that shows the bivariate correlations as colored ellipses.

  (iii) Use the internet to create another variant of a `corrplot` for the task at hand.

(c) Identify two variables with a **large positive** or a **large negative** correlation and plot them in a scatterplot.

(d) Identify two variables with a **small** correlation (close to zero) and plot them in a scatterplot.

Task 2.2 (Word Counts).

In this task, we will explore patterns in the average word count per sentence.

(a) Use the function `filter` to create a new data frame `df_wc` that contains only data from American and British authors. **Hint:** The author's nationality can be found in the variable `Nationality`.

(b) How does the publication year relate to the average number of words per sentence?

(i) Check the variables `PublicationYear` and `WordsPerSentence` for normality.

(ii) Use `ggplot2` to create a scatterplot with `PublicationYear` on the $x-$axis and `WordsPerSentence` on the $y-$axis.

(iii) Compute the correlation coefficient between `PublicationYear` and `WordsPerSentence`.

(iv) Use all available information to interpret the results and answer the question: *Does the average number of words decrease over time?*

Please solve the assignment in the `.Rmd` format and export it as `R02-<LastName><FirstName>.PDF`