PROGRAMMING FOR COGNITIVE SCIENCES

Laboratory 4: Rmarkdown and Shiny

Tasks:

1. **(50%)** Load the `Hitters` dataset from the `ISLR` package. Create an R Markdown report containing the following:
    a) A summary of the statistics concerning the year 1986.
       Hint: Type `help(Hitters)` to check the documentation of the dataset and choose the proper columns.
    b) A scatter plot with two panels created in `ggplot2` with the number of errors in 1986 in relation to the number of assists in 1986, where dots should be coloured by division and one panel should show the A league, the other the N league.
    c) A 2x2 table summarising the number of players in the leagues at the end of 1986 and at the beginning of 1987.

    Each of the above items should be a separate R Markdown section with an appropriate title and description. The report should compile to an HTML file.

2. **(50%)** Recreate the report from the previous task as a Shiny application, where each section is a separate tab, with the following changes:
    a) The user should be able to choose which of the 1986 statistics summary should be displayed.
    b) The plot should be displayed with points in one colour, but the user has the possibility of choosing which division should be displayed.
    c) The table with leagues can be displayed as is.