Compulsory exercise 1: Group XYZ (add your group number here) TMA4268 Statistical Learning V2023

NN1, NN2 and NN3 (full names of all group members)

12 February, 2023

```
install.packages("knitr")
                             # probably already installed
install.packages("rmarkdown") # probably already installed
install.packages("ggplot2")
                             # plotting with ggplot2
install.packages("dplyr")
                             # for data cleaning and preparation
install.packages("tidyr")
                             # also data preparation
install.packages("carData")
                             # dataset
install.packages("class")
                             # for KNN
install.packages("pROC")
                             # calculate roc
install.packages("plotROC")
                             # plot roc
install.packages("ggmosaic") # mosaic plot
```

Problem 1

For this problem you will need to include some LaTex code. Please install latex on your computer and then consult Compulsor1.Rmd for hints how to write formulas in LaTex.

- **a**)
- **b**)
- **c**)
- d)
- **e**)

Problem 2

Here is a code chunk:

```
library(carData)
?Salaries
GGally::ggpairs(Salaries)
```

- **a**)
- b)
- **c**)

Problem 3

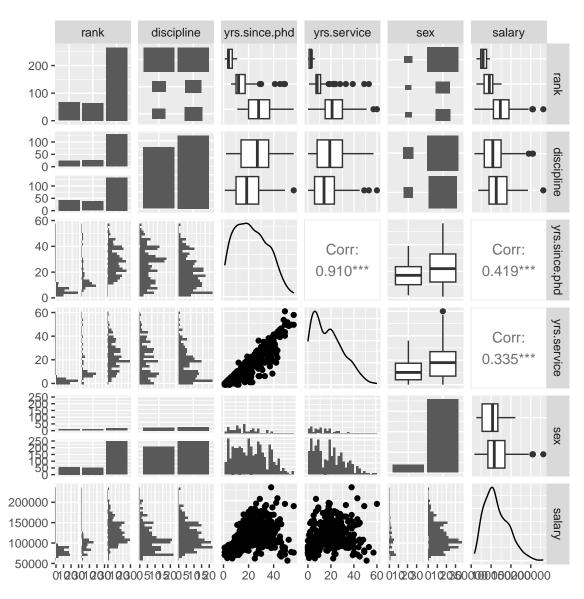


Figure 1: Pairs plot of the academic salary data set.

Problem 4