

# CHAP 1 - additional exercise

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## Énoncé

Read the interro2.rds from the rWSBIM1207 package (version 0.1.9 or later) file into R. The path to the file can be found with the rWSBIM1207::interro2.rds() function.

This dataframe provides the scores for 4 tests for 10 students.

Write a function that calculates the average score for the 3 best tests.

Calculate this average score for the 10 students.

This can be done using the apply function or using dplyr functions. For the latter, see rowwise()

## Chargement des packages et données

```
library(tidyverse)
library(rWSBIM1207)
rWSBIM1207::interro2.rds()
```

```
## [1] "/usr/local/lib/R/site-library/rWSBIM1207/extdata/interro2.rds"
```

```
interro <- readRDS("/usr/local/lib/R/site-library/rWSBIM1207/extdata/interro2.rds")
```

## Générer une fonction qui calcule la moyenne des 3 meilleures notes

```
mean_3_best <- function(x) {
  m <- mean(x[-which.min(x)], na.rm=TRUE)
  return(m) }
```

## Appliquer cette fonction avec apply()

```
means <- apply(interro[, -1], 1, mean_3_best)
data.frame("noma" = interro$noma,
           "mean of the 3 best interros" = means)
```

```
##           noma mean.of.the.3.best.interros
## 1  836016120449          4.500000
## 2  596844884419          4.666667
## 3  803259953398          4.333333
## 4  658786759629          2.666667
## 5  571155022756          5.666667
## 6  576037886365          7.666667
## 7  045086625199          7.333333
## 8  621909979467          6.000000
## 9  457029205538          7.333333
## 10 402526220817          10.000000
```

## Appliquer cette fonction avec dplyr::rowwise()

```
interro %>%
  rowwise() %>%
  mutate("mean of the 3 best interros" = mean_3_best(interro[, -1]))
```

-> error