

PROJET D'ANALYSE DE DONNEES

3MIC - 2024-2025

Contents

Ce projet a été réalisé par un groupe de 3 étudiants.

```
data <- read.table("DataProjet3MIC-2425.txt",header=TRUE,sep=";")
```

```
head(data)
```

```
      T1_1H_R1  T1_2H_R1  T1_3H_R1  T1_4H_R1  T1_5H_R1  T1_6H_R1  T2_1H_R1
G5 -0.2054734 -0.6888206 -0.1810843 -0.06656538 0.5217087 0.4480939 -0.4491395
      T2_2H_R1  T2_3H_R1  T2_4H_R1  T2_5H_R1  T2_6H_R1  T3_1H_R1  T3_2H_R1
G5 -1.514382 -3.815376 -2.503011 -2.914437 -3.57276 -0.6644699 -2.522064
      T3_3H_R1  T3_4H_R1  T3_5H_R1  T3_6H_R1  T1_1H_R2  T1_2H_R2  T1_3H_R2
G5 -1.796987 -2.967056 -2.991816 -2.836828 -0.2499091 -0.2375925 -0.7414745
      T1_4H_R2  T1_5H_R2  T1_6H_R2  T2_1H_R2  T2_2H_R2  T2_3H_R2  T2_4H_R2
G5 0.5043795 0.35486 0.6983094 -0.6705182 -2.489039 -2.398936 -2.551766
      T2_5H_R2  T2_6H_R2  T3_1H_R2  T3_2H_R2  T3_3H_R2  T3_4H_R2  T3_5H_R2
G5 -2.474437 -3.144543 -0.6195184 -2.706419 -2.828498 -2.849342 -2.938259
      T3_6H_R2 ExpT1 ExpT2 ExpT3
G5 -3.390693   Non   Sous   Sous
[ reached 'max' / getOption("max.print") -- omitted 5 rows ]
```

```
dim(data)
```

```
[1] 542 39
```

```
nrow(data)
```

```
[1] 542
```

```
ncol(data)
```

```
[1] 39
```

```
attributes(data)
```

```
$names
```

```
[1] "T1_1H_R1" "T1_2H_R1" "T1_3H_R1" "T1_4H_R1" "T1_5H_R1" "T1_6H_R1"
[7] "T2_1H_R1" "T2_2H_R1" "T2_3H_R1" "T2_4H_R1" "T2_5H_R1" "T2_6H_R1"
[13] "T3_1H_R1" "T3_2H_R1" "T3_3H_R1" "T3_4H_R1" "T3_5H_R1" "T3_6H_R1"
[19] "T1_1H_R2" "T1_2H_R2" "T1_3H_R2" "T1_4H_R2" "T1_5H_R2" "T1_6H_R2"
[25] "T2_1H_R2" "T2_2H_R2" "T2_3H_R2" "T2_4H_R2" "T2_5H_R2" "T2_6H_R2"
[31] "T3_1H_R2" "T3_2H_R2" "T3_3H_R2" "T3_4H_R2" "T3_5H_R2" "T3_6H_R2"
[37] "ExpT1"    "ExpT2"    "ExpT3"
```

```
$class
```

```
[1] "data.frame"
```

```

$ row.names
 [1] "G5" "G6" "G11" "G13" "G18" "G23" "G32" "G42" "G54" "G62"
[11] "G76" "G77" "G86" "G89" "G90" "G94" "G99" "G101" "G105" "G110"
[21] "G111" "G116" "G122" "G127" "G130" "G131" "G139" "G150" "G152" "G153"
[31] "G154" "G156" "G159" "G171" "G172" "G175" "G176" "G179" "G181" "G182"
[41] "G183" "G190" "G192" "G193" "G195" "G201" "G202" "G206" "G208" "G211"
[51] "G219" "G224" "G226" "G231" "G234" "G235" "G236" "G237" "G238" "G242"
[61] "G245" "G250" "G255" "G256" "G258" "G270" "G272" "G278" "G279" "G285"
[71] "G288" "G289" "G290" "G291" "G293"
 [ reached getOption("max.print") -- omitted 467 entries ]

```

```
str(data)
```

```

'data.frame': 542 obs. of 39 variables:
 $ T1_1H_R1: num -0.205 -0.62 0.309 0.192 0.108 ...
 $ T1_2H_R1: num -0.689 -0.856 0.817 0.148 0.288 ...
 $ T1_3H_R1: num -0.1811 -0.0211 -0.5615 0.2424 -0.1975 ...
 $ T1_4H_R1: num -0.06657 -0.14456 0.18148 0.56182 -0.00155 ...
 $ T1_5H_R1: num 0.5217 0.4934 -0.337 0.0453 -0.2274 ...
 $ T1_6H_R1: num 0.448 0.454 -0.373 -0.635 -0.571 ...
 $ T2_1H_R1: num -0.449 -0.572 -0.209 0.526 0.34 ...
 $ T2_2H_R1: num -1.5144 -1.4755 -1.29 1.4315 -0.0468 ...
 $ T2_3H_R1: num -3.815 -3.079 -2.633 1.842 -0.327 ...
 $ T2_4H_R1: num -2.5 -2.22 -2.4 1.83 -0.47 ...
 $ T2_5H_R1: num -2.9144 -2.2659 -2.4397 1.9242 0.0153 ...
 $ T2_6H_R1: num -3.57 -3.36 -2.03 2.19 2.17 ...
 $ T3_1H_R1: num -0.6645 -0.5427 -0.2709 0.4127 -0.0402 ...
 $ T3_2H_R1: num -2.522 -2.281 -1.176 1.688 0.179 ...
 $ T3_3H_R1: num -1.797 -1.597 -3.018 1.812 -0.192 ...
 $ T3_4H_R1: num -2.967 -2.635 -2.953 1.868 -0.553 ...
 $ T3_5H_R1: num -2.99182 -2.42474 -2.96356 2.14249 -0.00553 ...
 $ T3_6H_R1: num -2.84 -2.54 -2.49 2.1 2.09 ...
 $ T1_1H_R2: num -0.25 -0.527 0.303 -0.234 -0.33 ...
 $ T1_2H_R2: num -0.2376 -0.3474 0.5477 -0.2899 0.0044 ...
 $ T1_3H_R2: num -0.741 -0.64 0.589 0.725 0.171 ...
 $ T1_4H_R2: num 0.504 0.274 -0.908 -0.488 -0.53 ...
 $ T1_5H_R2: num 0.355 0.347 -1.428 -0.289 -0.481 ...
 $ T1_6H_R2: num 0.698 0.663 -0.699 -0.649 -0.714 ...
 $ T2_1H_R2: num -0.671 -0.67 0.163 0.272 -0.373 ...
 $ T2_2H_R2: num -2.489 -2.416 -2.307 1.47 -0.109 ...
 $ T2_3H_R2: num -2.4 -2.21 -2.32 1.83 0.13 ...
 $ T2_4H_R2: num -2.552 -2.198 -3.294 1.618 -0.453 ...
 $ T2_5H_R2: num -2.474 -2.238 -2.967 2.191 0.888 ...
 $ T2_6H_R2: num -3.14 -2.47 -3.18 2.19 2.18 ...
 $ T3_1H_R2: num -0.62 -0.842 -0.195 0.17 -0.446 ...
 $ T3_2H_R2: num -2.7064 -2.4478 -2.1068 1.5124 0.0384 ...
 $ T3_3H_R2: num -2.828 -2.552 -2.624 2.051 -0.111 ...
 $ T3_4H_R2: num -2.849 -2.484 -3.024 1.559 -0.222 ...
 $ T3_5H_R2: num -2.94 -2.46 -2.81 2.32 1.19 ...
 $ T3_6H_R2: num -3.39 -2.97 -2.7 2.16 1.95 ...
 $ ExpT1 : chr "Non" "Non" "Non" "Non" ...
 $ ExpT2 : chr "Sous" "Sous" "Sous" "Sur" ...
 $ ExpT3 : chr "Sous" "Sous" "Sous" "Sur" ...

```

```
summary(data)
```

```

      T1_1H_R1      T1_2H_R1      T1_3H_R1      T1_4H_R1
Min.   :-3.58436  Min.   :-4.3034  Min.   :-2.26607  Min.   :-2.56731
      T1_5H_R1      T1_6H_R1      T2_1H_R1      T2_2H_R1
Min.   :-5.5106  Min.   :-2.9759  Min.   :-4.30401  Min.   :-4.5825
      T2_3H_R1      T2_4H_R1      T2_5H_R1      T2_6H_R1
Min.   :-6.6293  Min.   :-5.813548  Min.   :-5.8017  Min.   :-5.6784
      T3_1H_R1      T3_2H_R1      T3_3H_R1      T3_4H_R1
Min.   :-2.9561  Min.   :-4.9884  Min.   :-5.8280  Min.   :-6.0789
      T3_5H_R1      T3_6H_R1      T1_1H_R2      T1_2H_R2
Min.   :-6.910  Min.   :-4.7625  Min.   :-2.11580  Min.   :-2.75004
      T1_3H_R2      T1_4H_R2      T1_5H_R2      T1_6H_R2
Min.   :-3.2539  Min.   :-3.50770  Min.   :-3.3307  Min.   :-2.4863
      T2_1H_R2      T2_2H_R2      T2_3H_R2      T2_4H_R2
Min.   :-2.38587  Min.   :-5.8266  Min.   :-4.6135  Min.   :-6.4553
      T2_5H_R2      T2_6H_R2      T3_1H_R2      T3_2H_R2
Min.   :-6.1685  Min.   :-6.2234  Min.   :-3.22436  Min.   :-6.0944
      T3_3H_R2      T3_4H_R2      T3_5H_R2      T3_6H_R2
Min.   :-6.0135  Min.   :-6.0345  Min.   :-6.8294  Min.   :-7.24672
      ExpT1      ExpT2      ExpT3
Length:542      Length:542      Length:542
[ reached getOption("max.print") -- omitted 5 rows ]

```