

TOY_1

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Enero 2022

DATA

```
players_L <- paste0("LP",1:10)
players_A <- paste0("AP",1:10)

toy <- data.frame(
  "id_play" = 1:15,
  "season" = c(rep("S2017",15)),
  "game" = c(rep("G1",10), rep("G2",5)),
  "points_L" = c(0,0,0,2,2,2,5,5,7,7,7,7,10,10,12),
  "points_A" = c(0,2,2,2,4,4,7,7,9,9,10,10,12,12,12),
  "LP1" = c(rep(players_L[1],4),rep(players_L[6],5),rep(players_L[1],6)),
  "LP2" = players_L[2],
  "LP3" = c(rep(players_L[3],7), rep(players_L[7],2),rep(players_L[3],6)),
  "AP1" = players_A[1],
  "AP2" = c(rep(players_A[2],8),players_A[7], rep(players_A[2],6)),
  "AP3" = players_A[3]
)

toy2 <- data.frame(                                     #DF2 para comprobar que funciona
  "id_play" = 1:20,
  "season" = c(rep("S2017",20)),
  "game" = c(rep("G1",10), rep("G2",10)),
  "points_L" = c(0,0,0,2,2,2,5,5,7,7,0,2,2,5,5,7,7,9,10),
  "points_A" = c(0,2,2,2,4,4,7,7,9,9,0,0,2,2,4,4,6,6,6,6),
  "LP1" = c(rep(players_L[1],4),rep(players_L[6],5),rep(players_L[1],8), rep(players_L[1],3)),
  "LP2" = players_L[2],
  "LP3" = c(rep(players_L[3],7), rep(players_L[7],2),rep(players_L[3],9), rep(players_L[9],2)),
  "AP1" = players_A[1],
  "AP2" = c(rep(players_A[2],8),players_A[7], rep(players_A[2],9), rep(players_A[5],2)),
  "AP3" = players_A[3]
)

toy_backup <- toy

df <- toy2

df$PM <- df$points_L-df$points_A

knitr::kable(df)
```

| id_play | season | game | points_L | points_A | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | PM |
|---------|--------|------|----------|----------|-----|-----|-----|-----|-----|-----|----|
| 1 | S2017 | G1 | 0 | 0 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 0 |
| 2 | S2017 | G1 | 0 | 2 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 3 | S2017 | G1 | 0 | 2 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 4 | S2017 | G1 | 2 | 2 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 0 |
| 5 | S2017 | G1 | 2 | 4 | LP6 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 6 | S2017 | G1 | 2 | 4 | LP6 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 7 | S2017 | G1 | 5 | 7 | LP6 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 8 | S2017 | G1 | 5 | 7 | LP6 | LP2 | LP7 | AP1 | AP2 | AP3 | -2 |
| 9 | S2017 | G1 | 7 | 9 | LP6 | LP2 | LP7 | AP1 | AP7 | AP3 | -2 |
| 10 | S2017 | G1 | 7 | 9 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | -2 |
| 11 | S2017 | G2 | 0 | 0 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 0 |
| 12 | S2017 | G2 | 2 | 0 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 2 |
| 13 | S2017 | G2 | 2 | 2 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 0 |
| 14 | S2017 | G2 | 5 | 2 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 3 |
| 15 | S2017 | G2 | 5 | 4 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 1 |
| 16 | S2017 | G2 | 7 | 4 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 3 |
| 17 | S2017 | G2 | 7 | 6 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 1 |
| 18 | S2017 | G2 | 7 | 6 | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 | 1 |
| 19 | S2017 | G2 | 9 | 6 | LP1 | LP2 | LP9 | AP1 | AP5 | AP3 | 3 |
| 20 | S2017 | G2 | 10 | 6 | LP1 | LP2 | LP9 | AP1 | AP5 | AP3 | 4 |

ORDENAR DF

```

players_pbp <- df[6:11] #subset de solo jugadores pbp
resto_pbp <- cbind(df[1:5], df[12])

## Ordenar alfabeticamente jugadores
order_players_pbp <- lapply(1:nrow(players_pbp), function(row)
  players_pbp[row, order(players_pbp[row, ], decreasing = TRUE)])
df_order_players_pbp <- data.frame(matrix(unlist(order_players_pbp),
  nrow=length(order_players_pbp), byrow=TRUE))
names(df_order_players_pbp) <- c(paste0("LP",1:3), paste0("AP",1:3))

df_new <- cbind(resto_pbp, df_order_players_pbp)

## Ordenar Columnas
col_order <- c("season", "game", "id_play", "points_L", "points_A", "PM",
  paste0("LP",1:3), paste0("AP",1:3))
df_order <- df_new[, col_order]
knitr::kable(df_order)

```

| season | game | id_play | points_L | points_A | PM | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 |
|--------|------|---------|----------|----------|----|-----|-----|-----|-----|-----|-----|
| S2017 | G1 | 1 | 0 | 0 | 0 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G1 | 2 | 0 | 2 | -2 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G1 | 3 | 0 | 2 | -2 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G1 | 4 | 2 | 2 | 0 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G1 | 5 | 2 | 4 | -2 | LP6 | LP3 | LP2 | AP3 | AP2 | AP1 |
| S2017 | G1 | 6 | 2 | 4 | -2 | LP6 | LP3 | LP2 | AP3 | AP2 | AP1 |
| S2017 | G1 | 7 | 5 | 7 | -2 | LP6 | LP3 | LP2 | AP3 | AP2 | AP1 |
| S2017 | G1 | 8 | 5 | 7 | -2 | LP7 | LP6 | LP2 | AP3 | AP2 | AP1 |

| season | game | id_play | points_L | points_A | PM | LP1 | LP2 | LP3 | AP1 | AP2 | AP3 |
|--------|------|---------|----------|----------|----|-----|-----|-----|-----|-----|-----|
| S2017 | G1 | 9 | 7 | 9 | -2 | LP7 | LP6 | LP2 | AP7 | AP3 | AP1 |
| S2017 | G1 | 10 | 7 | 9 | -2 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 11 | 0 | 0 | 0 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 12 | 2 | 0 | 2 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 13 | 2 | 2 | 0 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 14 | 5 | 2 | 3 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 15 | 5 | 4 | 1 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 16 | 7 | 4 | 3 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 17 | 7 | 6 | 1 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 18 | 7 | 6 | 1 | LP3 | LP2 | LP1 | AP3 | AP2 | AP1 |
| S2017 | G2 | 19 | 9 | 6 | 3 | LP9 | LP2 | LP1 | AP5 | AP3 | AP1 |
| S2017 | G2 | 20 | 10 | 6 | 4 | LP9 | LP2 | LP1 | AP5 | AP3 | AP1 |

MERGE Jugadores y Temporada+Game

```
library(tidyr)
df_order <- df_order %>%
  unite("Merged_Players", LP1:AP3, remove = TRUE) %>%
  unite("Merged_SG", c("season", "game"))

knitr::kable(df_order)
```

| Merged_SG | id_play | points_L | points_A | PM | Merged_Players |
|-----------|---------|----------|----------|----|-------------------------|
| S2017_G1 | 1 | 0 | 0 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G1 | 2 | 0 | 2 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G1 | 3 | 0 | 2 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G1 | 4 | 2 | 2 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G1 | 5 | 2 | 4 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 |
| S2017_G1 | 6 | 2 | 4 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 |
| S2017_G1 | 7 | 5 | 7 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 |
| S2017_G1 | 8 | 5 | 7 | -2 | LP7_LP6_LP2_AP3_AP2_AP1 |
| S2017_G1 | 9 | 7 | 9 | -2 | LP7_LP6_LP2_AP7_AP3_AP1 |
| S2017_G1 | 10 | 7 | 9 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 11 | 0 | 0 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 12 | 2 | 0 | 2 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 13 | 2 | 2 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 14 | 5 | 2 | 3 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 15 | 5 | 4 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 16 | 7 | 4 | 3 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 17 | 7 | 6 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 18 | 7 | 6 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 |
| S2017_G2 | 19 | 9 | 6 | 3 | LP9_LP2_LP1_AP5_AP3_AP1 |
| S2017_G2 | 20 | 10 | 6 | 4 | LP9_LP2_LP1_AP5_AP3_AP1 |

UNIQUE quintetos

```
library(dplyr)
players_Merged <- df_order$Merged_Players == lag(df_order$Merged_Players)
## col_TrueFalse si son igual que lag row
SG_DIF <- df_order$Merged_SG == lag(df_order$Merged_SG)
```

```
df_order$TF_Cambios <- ifelse(((players_Merged == FALSE)|(SG_DIF == FALSE )), "C", "NC")

df_order
```

```
##      Merged_SG id_play points_L points_A PM      Merged_Players TF_Cambios
## 1   S2017_G1      1         0         0  0 LP3_LP2_LP1_AP3_AP2_AP1      <NA>
## 2   S2017_G1      2         0         2 -2 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 3   S2017_G1      3         0         2 -2 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 4   S2017_G1      4         2         2  0 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 5   S2017_G1      5         2         4 -2 LP6_LP3_LP2_AP3_AP2_AP1      C
## 6   S2017_G1      6         2         4 -2 LP6_LP3_LP2_AP3_AP2_AP1      NC
## 7   S2017_G1      7         5         7 -2 LP6_LP3_LP2_AP3_AP2_AP1      NC
## 8   S2017_G1      8         5         7 -2 LP7_LP6_LP2_AP3_AP2_AP1      C
## 9   S2017_G1      9         7         9 -2 LP7_LP6_LP2_AP7_AP3_AP1      C
## 10  S2017_G1     10         7         9 -2 LP3_LP2_LP1_AP3_AP2_AP1      C
## 11  S2017_G2     11         0         0  0 LP3_LP2_LP1_AP3_AP2_AP1      C
## 12  S2017_G2     12         2         0  2 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 13  S2017_G2     13         2         2  0 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 14  S2017_G2     14         5         2  3 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 15  S2017_G2     15         5         4  1 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 16  S2017_G2     16         7         4  3 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 17  S2017_G2     17         7         6  1 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 18  S2017_G2     18         7         6  1 LP3_LP2_LP1_AP3_AP2_AP1      NC
## 19  S2017_G2     19         9         6  3 LP9_LP2_LP1_AP5_AP3_AP1      C
## 20  S2017_G2     20        10         6  4 LP9_LP2_LP1_AP5_AP3_AP1      NC
```

Hasta aquí tenemos detectados cuando hay cambios

STINTS

```
df_order$stint <- ifelse(lead(df_order$TF)=="C", df_order$TF, NA)
                                #Filas que tenemos que conservar

last_row <- tail(df_order, n =1)                                #Tendremos que añadirla al final.
last_row$stint <- "LastRow"

knitr::kable(df_order)
```

| Merged_SG | id_play | points_L | points_A | PM | Merged_Players | TF_Cambios | stint |
|-----------|---------|----------|----------|----|-------------------------|---------------|-------|
| S2017_G1 | 1 | 0 | 0 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 | NA | NA |
| S2017_G1 | 2 | 0 | 2 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G1 | 3 | 0 | 2 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G1 | 4 | 2 | 2 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NC |
| S2017_G1 | 5 | 2 | 4 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 | C | NA |
| S2017_G1 | 6 | 2 | 4 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 | NC | NA |
| S2017_G1 | 7 | 5 | 7 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 | NC | NC |
| S2017_G1 | 8 | 5 | 7 | -2 | LP7_LP6_LP2_AP3_AP2_AP1 | C | C |
| S2017_G1 | 9 | 7 | 9 | -2 | LP7_LP6_LP2_AP7_AP3_AP1 | C | C |
| S2017_G1 | 10 | 7 | 9 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 | C | C |
| S2017_G2 | 11 | 0 | 0 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 | C | NA |
| S2017_G2 | 12 | 2 | 0 | 2 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G2 | 13 | 2 | 2 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G2 | 14 | 5 | 2 | 3 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |

| Merged_SG | id_play | points_L | points_A | PM | Merged_Players | TF_Cambios | stint |
|-----------|---------|----------|----------|----|-------------------------|------------|-------|
| S2017_G2 | 15 | 5 | 4 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G2 | 16 | 7 | 4 | 3 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G2 | 17 | 7 | 6 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NA |
| S2017_G2 | 18 | 7 | 6 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 | NC | NC |
| S2017_G2 | 19 | 9 | 6 | 3 | LP9_LP2_LP1_AP5_AP3_AP1 | NC | NA |
| S2017_G2 | 20 | 10 | 6 | 4 | LP9_LP2_LP1_AP5_AP3_AP1 | NC | NA |

```
library(tidyr)
STINTS <- df_order %>% drop_na(stint)
STINTS <- rbind(STINTS, last_row)
knitr::kable(STINTS[1:6])
```

| | Merged_SG | id_play | points_L | points_A | PM | Merged_Players |
|----|-----------|---------|----------|----------|----|-------------------------|
| 1 | S2017_G1 | 4 | 2 | 2 | 0 | LP3_LP2_LP1_AP3_AP2_AP1 |
| 2 | S2017_G1 | 7 | 5 | 7 | -2 | LP6_LP3_LP2_AP3_AP2_AP1 |
| 3 | S2017_G1 | 8 | 5 | 7 | -2 | LP7_LP6_LP2_AP3_AP2_AP1 |
| 4 | S2017_G1 | 9 | 7 | 9 | -2 | LP7_LP6_LP2_AP7_AP3_AP1 |
| 5 | S2017_G1 | 10 | 7 | 9 | -2 | LP3_LP2_LP1_AP3_AP2_AP1 |
| 6 | S2017_G2 | 18 | 7 | 6 | 1 | LP3_LP2_LP1_AP3_AP2_AP1 |
| 20 | S2017_G2 | 20 | 10 | 6 | 4 | LP9_LP2_LP1_AP5_AP3_AP1 |

```
dim(STINTS)
```

```
## [1] 7 8
```