

```

#APPT
#12/05/22
#Lab_Semana 6

#Base de los
vectores_____

wins = c(52, 51, 47, 47, 42)
losses = c(20, 21, 25, 25, 30)
win_loss_perc = wins / (wins + losses)
win_loss_perc # variables cuantitativas
games_behind = wins / (wins + losses)

teams = c('UtJ','PhS','DnN','LAC','DlM')
# VECTOR de caracteres (variable cualitativa)

#Manipulacionde vectores:
subconjuntos_____

# primer elemento de'wins'
wins[1]= 52

# tercer elemento de'losses'
losses[3]=25

# último nombre en'teams'
teams[5]= "DlM"

length(teams)= 5
# nos da el número de valores
teams[length(teams)]= "DlM"
sort(wins, decreasing = TRUE)
#52, 51, 47, 47, 42
# ordena los valores de forma creciente o decreciente
rev(wins)
#42, 47, 47, 51, 52
# invierte los valores

#Subconjuntos con indices logicos_____

# victorias de Utah Jazz
wins[teams =='UtJ']= 52
teams[wins > 40]
#"UtJ" "PhS" "DnN" "LAC" "DlM"
teams[losses >= 10 & losses <= 29]
#"UtJ" "PhS" "DnN" "LAC"

#Factores y variables cuanlitativas_____

num_vector <- c(1, 2, 3, 1, 2, 3, 2)
# crear un factor apartir de num_vector
first_factor <- factor(num_vector)

```

```
first_factor
```

```
teams = factor(teams)
teams
```

```
#Secuencias
```

```
# operador dos puntos :
1:5
#1 2 3 4 5
1:10
#1 2 3 4 5 6 7 8 9 10
-3:7
#-3 -2 -1 0 1 2 3 4 5 6 7
10:1
#10 9 8 7 6 5 4 3 2 1
```

```
# funcion secuencia
seq(from = 1, to = 10)
#1 2 3 4 5 6 7 8 9 10
seq(from = 1, to = 10, by = 1)
#1 2 3 4 5 6 7 8 9 10
seq(from = 1, to = 10, by = 2)
#1 3 5 7 9
seq(from = -5, to = 5, by = 1)
#-5 -4 -3 -2 -1 0 1 2 3 4 5
```

```
#Vectores
```

```
repetidos
```

```
rep(1, times = 5) # repetir 1 cinco veces
#1 1 1 1 1
rep(c(1, 2), times = 3) # repetir 1 y 2 tres veces
#1 2 1 2 1 2
rep(c(1, 2), each = 2)
#1 1 2 2
rep(c(1, 2), length.out = 5)
#1 2 1 2 1
rep(c(3, 2, 1), times = 3, each = 2)
#3 3 2 2 1 1 3 3 2 2 1 1 3 3 2 2 1 1
```

```
#De vectores a estructura tabular (data frame)
```

```
dat = data.frame(
  Teams = teams,
  Wins = wins,
  Losses = losses,
  WLperc = win_loss_perc
)
dat
```

```
#Teams Wins Losses    WLperc
#1    UtJ    52      20 0.7222222
#2    PhS    51      21 0.7083333
```

```
#3    DnN    47      25 0.6527778
#4    LAC    47      25 0.6527778
#5    DLM    42      30 0.5833333
```

```
dat$Teams
#[1] UtJ PhS DnN LAC DLM
#Levels: DLM DnN LAC PhS UtJ
```

```
dat$Wins[1]= 52
dat$Wins[5]= 42
```

```
# Del mismo modo, puede hacer subconjuntos lógicos:
```

```
# Victorias del equipo Utah
dat$Wins[dat$Teams == 'UtJ']
52
```

```
# equipos con victorias > 40
dat$Teams[dat$Wins > 40]
#[1] UtJ PhS DnN LAC DLM
#Levels: DLM DnN LAC PhS UtJ
```

```
# nombre de los equipos con derrotas entre 10 y 29
dat$Teams[dat$Losses >= 10 & dat$Losses <= 29]
#[1] UtJ PhS DnN LAC
#Levels: DLM DnN LAC PhS UtJ
```

```
#Tu
turno_____
```

```
teams
wins
losses
win_loss_perc
games_behind
points_scored
```

```
wins[1] - wins
#[1] 0 1 5 5 10
```

```
data.frame(teams)
#1    UtJ
#2    PhS
#3    DnN
#4    LAC
#5    DLM
```

```
data.frame(wins)
#1    52
#2    51
#3    47
#4    47
```

#5 42

data.frame(losses)

#1 20

#2 21

#3 25

#4 25

#5 30

data.frame(win_loss_perc)

#1 0.7222222

#2 0.7083333

#3 0.6527778

#4 0.6527778

#5 0.5833333