

Visualización datos Fifa Práctica

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Contents

1 - LECTURA DEL FICHERO Y PREPARACIÓN DE LOS DATOS	1
1.2 - CLASIFICACIÓN DE LOS JUGADORES	8
2 - ESTADÍSTICA DESCRIPTIVA Y VISUALIZACIÓN	9
2.1 - ANÁLISIS DESCRIPTIVO	9
2.2 - VALORES AUSENTES	9

1 - LECTURA DEL FICHERO Y PREPARACIÓN DE LOS DATOS

El conjunto de datos `players_20.csv` se encuentra disponible en la plataforma Kaggle: https://www.kaggle.com/stefanoleone992/fifa-20-complete-player-dataset?select=players_20.csv

Este conjunto de datos contiene el estilo de juego del videojuego de consola Fifa 2020, así como estadísticas reales de los jugadores de fútbol. El conjunto de datos contiene más de 18,278 registros y 104 variables, combinando datos categóricos y cuantitativos.

Algunas de las variables que contiene el dataset son:

• `long_name`(Nombre del jugador) • `nationality` (Nacionalidad del jugador) • `nation_position` (Posición de juego en equipo nacional). • `club` (Nombre del club) • `overall` (Valoración global del jugador, entre 0 y 100) • `potential`(Potencial del jugador, entre 0 y 100) • `value_eur` (Valor en euros del jugador) • `wage_eur` (Salario del jugador) • `age` (Edad) • `international_reputation`(Reputación internacional) • `release_clause_eur` (Cláusula de rescisión en euros) • `work_rate` (valoración cualitativa en términos de ataque-defensa) • `weak_foot` (valoración de 1 a 5 de control y potencia de la pierna no preferida) • `preferred_foot` (Pie preferido) • ...

El resto de variables hacen referencia a otros atributos del jugador.

La descripción de los atributos se puede consultar en <https://www.fifplay.com/encyclopedia/>

La descripción de las abreviaturas de la posición del jugador en el campo se puede consultar en <https://www.dtgref.com/2016/10/fifa-17-position-abbreviations-acronyms.html>

```
# Lectura de los datos
```

```
fifa <- read.csv("players_20.csv",header = TRUE,encoding="UTF-8")
```

```
# Tipos de datos asignados a cada campo
```

```
sapply(fifa, function(x) class(x))
```

```
##          sofifa_id          player_url
##          "integer"         "character"
##      short_name          long_name
##          "character"         "character"
##          age              dob
##          "integer"         "character"
##      height_cm          weight_kg
##          "integer"         "integer"
##      nationality          club
##          "character"         "character"
##          overall          potential
##          "integer"         "integer"
##      value_eur          wage_eur
##          "integer"         "integer"
##      player_positions    preferred_foot
##          "character"         "character"
##      international_reputation    weak_foot
##          "integer"         "integer"
##      skill_moves          work_rate
##          "integer"         "character"
##      body_type            real_face
##          "character"         "character"
##      release_clause_eur    player_tags
##          "integer"         "character"
##      team_position        team_jersey_number
##          "character"         "integer"
##      loaned_from          joined
##          "character"         "character"
##      contract_valid_until    nation_position
##          "integer"         "character"
##      nation_jersey_number    pace
##          "integer"         "integer"
##      shooting              passing
##          "integer"         "integer"
##      dribbling              defending
##          "integer"         "integer"
##      physic                 gk_diving
##          "integer"         "integer"
##      gk_handling            gk_kicking
##          "integer"         "integer"
##      gk_reflexes            gk_speed
##          "integer"         "integer"
##      gk_positioning        player_traits
##          "integer"         "character"
##      attacking_crossing    attacking_finishing
```

##	"integer"	"integer"
##	attacking_heading_accuracy	attacking_short_passing
##	"integer"	"integer"
##	attacking_volleys	skill_dribbling
##	"integer"	"integer"
##	skill_curve	skill_fk_accuracy
##	"integer"	"integer"
##	skill_long_passing	skill_ball_control
##	"integer"	"integer"
##	movement_acceleration	movement_sprint_speed
##	"integer"	"integer"
##	movement_agility	movement_reactions
##	"integer"	"integer"
##	movement_balance	power_shot_power
##	"integer"	"integer"
##	power_jumping	power_stamina
##	"integer"	"integer"
##	power_strength	power_long_shots
##	"integer"	"integer"
##	mentality_aggression	mentality_interceptions
##	"integer"	"integer"
##	mentality_positioning	mentality_vision
##	"integer"	"integer"
##	mentality_penalties	mentality_composure
##	"integer"	"integer"
##	defending_marking	defending_standing_tackle
##	"integer"	"integer"
##	defending_sliding_tackle	goalkeeping_diving
##	"integer"	"integer"
##	goalkeeping_handling	goalkeeping_kicking
##	"integer"	"integer"
##	goalkeeping_positioning	goalkeeping_reflexes
##	"integer"	"integer"
##	ls	st
##	"character"	"character"
##	rs	lw
##	"character"	"character"
##	lf	cf
##	"character"	"character"
##	rf	rw
##	"character"	"character"
##	lam	cam
##	"character"	"character"
##	ram	lm
##	"character"	"character"
##	lcm	cm
##	"character"	"character"
##	rcm	rm
##	"character"	"character"
##	lwb	ldm
##	"character"	"character"
##	cdm	rdm
##	"character"	"character"
##	rwb	lb

```
##          "character"          "character"
##          lcb                  cb
##          "character"          "character"
##          rcb                  rb
##          "character"          "character"
```

Vamos a ver algunos datos sobre cada variable:

```
summary(fifa)
```

```
##      sofifa_id      player_url      short_name      long_name
## Min.   :   768      Length:18278      Length:18278      Length:18278
## 1st Qu.:204446      Class :character      Class :character      Class :character
## Median :226165      Mode  :character      Mode  :character      Mode  :character
## Mean   :219739
## 3rd Qu.:240796
## Max.   :252905
##
##      age      dob      height_cm      weight_kg
## Min.   :16.00      Length:18278      Min.   :156.0      Min.   : 50.00
## 1st Qu.:22.00      Class :character      1st Qu.:177.0      1st Qu.: 70.00
## Median :25.00      Mode  :character      Median :181.0      Median : 75.00
## Mean   :25.28
## 3rd Qu.:29.00
## Max.   :42.00
##
##      nationality      club      overall      potential
## Length:18278      Length:18278      Min.   :48.00      Min.   :49.00
## Class :character      Class :character      1st Qu.:62.00      1st Qu.:67.00
## Mode  :character      Mode  :character      Median :66.00      Median :71.00
##
##      Mean   :66.24      Mean   :71.55
##      3rd Qu.:71.00      3rd Qu.:75.00
##      Max.   :94.00      Max.   :95.00
##
##      value_eur      wage_eur      player_positions      preferred_foot
## Min.   :      0      Min.   :      0      Length:18278      Length:18278
## 1st Qu.: 325000      1st Qu.: 1000      Class :character      Class :character
## Median : 700000      Median : 3000      Mode  :character      Mode  :character
## Mean   : 2484038      Mean   : 9457
## 3rd Qu.: 2100000      3rd Qu.: 8000
## Max.   :105500000      Max.   :565000
##
##      international_reputation      weak_foot      skill_moves      work_rate
## Min.   :1.000      Min.   :1.000      Min.   :1.000      Length:18278
## 1st Qu.:1.000      1st Qu.:3.000      1st Qu.:2.000      Class :character
## Median :1.000      Median :3.000      Median :2.000      Mode  :character
## Mean   :1.103      Mean   :2.944      Mean   :2.368
## 3rd Qu.:1.000      3rd Qu.:3.000      3rd Qu.:3.000
## Max.   :5.000      Max.   :5.000      Max.   :5.000
##
##      body_type      real_face      release_clause_eur      player_tags
## Length:18278      Length:18278      Min.   : 13000      Length:18278
## Class :character      Class :character      1st Qu.: 563000      Class :character
```

```

## Mode :character Mode :character Median : 1200000 Mode :character
## Mean : 4740717
## 3rd Qu.: 3700000
## Max. :195800000
## NA's :1298
## team_position team_jersey_number loaned_from joined
## Length:18278 Min. : 1.0 Length:18278 Length:18278
## Class :character 1st Qu.: 9.0 Class :character Class :character
## Mode :character Median :17.0 Mode :character Mode :character
## Mean :20.1
## 3rd Qu.:27.0
## Max. :99.0
## NA's :240
## contract_valid_until nation_position nation_jersey_number pace
## Min. :2019 Length:18278 Min. : 1.00 Min. :24.0
## 1st Qu.:2020 Class :character 1st Qu.: 6.00 1st Qu.:61.0
## Median :2021 Mode :character Median :12.00 Median :69.0
## Mean :2021 Mean :12.12 Mean :67.7
## 3rd Qu.:2022 3rd Qu.:18.00 3rd Qu.:75.0
## Max. :2026 Max. :30.00 Max. :96.0
## NA's :240 NA's :17152 NA's :2036
## shooting passing dribbling defending physic
## Min. :15.0 Min. :24.00 Min. :23.00 Min. :15.00 Min. :27.00
## 1st Qu.:42.0 1st Qu.:50.00 1st Qu.:57.00 1st Qu.:36.00 1st Qu.:59.00
## Median :54.0 Median :58.00 Median :64.00 Median :56.00 Median :66.00
## Mean :52.3 Mean :57.23 Mean :62.53 Mean :51.55 Mean :64.88
## 3rd Qu.:63.0 3rd Qu.:64.00 3rd Qu.:69.00 3rd Qu.:65.00 3rd Qu.:72.00
## Max. :93.0 Max. :92.00 Max. :96.00 Max. :90.00 Max. :90.00
## NA's :2036 NA's :2036 NA's :2036 NA's :2036 NA's :2036
## gk_diving gk_handling gk_kicking gk_reflexes
## Min. :44.00 Min. :42.00 Min. :35.00 Min. :45.00
## 1st Qu.:60.00 1st Qu.:58.00 1st Qu.:57.00 1st Qu.:60.75
## Median :65.00 Median :63.00 Median :61.00 Median :66.00
## Mean :65.42 Mean :63.15 Mean :61.83 Mean :66.39
## 3rd Qu.:70.00 3rd Qu.:68.00 3rd Qu.:66.00 3rd Qu.:72.00
## Max. :90.00 Max. :92.00 Max. :93.00 Max. :92.00
## NA's :16242 NA's :16242 NA's :16242 NA's :16242
## gk_speed gk_positioning player_traits attacking_crossing
## Min. :12.0 Min. :41.00 Length:18278 Min. : 5.00
## 1st Qu.:29.0 1st Qu.:58.00 Class :character 1st Qu.:38.00
## Median :39.0 Median :64.00 Mode :character Median :54.00
## Mean :37.8 Mean :63.38 Mean :49.72
## 3rd Qu.:46.0 3rd Qu.:69.00 3rd Qu.:64.00
## Max. :65.0 Max. :91.00 Max. :93.00
## NA's :16242 NA's :16242
## attacking_finishing attacking_heading_accuracy attacking_short_passing
## Min. : 2.00 Min. : 5.00 Min. : 7.00
## 1st Qu.:30.00 1st Qu.:44.00 1st Qu.:54.00
## Median :49.00 Median :56.00 Median :62.00
## Mean :45.59 Mean :52.22 Mean :58.75
## 3rd Qu.:62.00 3rd Qu.:64.00 3rd Qu.:68.00
## Max. :95.00 Max. :93.00 Max. :92.00
## attacking_volleys skill_dribbling skill_curve skill_fk_accuracy

```

```

## Min. : 3.00 Min. : 4.0 Min. : 6.00 Min. : 4.00
## 1st Qu.:30.00 1st Qu.:50.0 1st Qu.:34.00 1st Qu.:31.00
## Median :44.00 Median :61.0 Median :49.00 Median :41.00
## Mean :42.81 Mean :55.6 Mean :47.33 Mean :42.71
## 3rd Qu.:56.00 3rd Qu.:68.0 3rd Qu.:62.00 3rd Qu.:56.00
## Max. :90.00 Max. :97.0 Max. :94.00 Max. :94.00
##
## skill_long_passing skill_ball_control movement_acceleration
## Min. : 8.00 Min. : 5.00 Min. :12.0
## 1st Qu.:43.00 1st Qu.:54.00 1st Qu.:56.0
## Median :56.00 Median :63.00 Median :67.0
## Mean :52.77 Mean :58.46 Mean :64.3
## 3rd Qu.:64.00 3rd Qu.:69.00 3rd Qu.:75.0
## Max. :92.00 Max. :96.00 Max. :97.0
##
## movement_sprint_speed movement_agility movement_reactions movement_balance
## Min. :11.00 Min. :11.0 Min. :21.00 Min. :12.00
## 1st Qu.:57.00 1st Qu.:55.0 1st Qu.:56.00 1st Qu.:56.00
## Median :67.00 Median :66.0 Median :62.00 Median :66.00
## Mean :64.42 Mean :63.5 Mean :61.75 Mean :63.86
## 3rd Qu.:75.00 3rd Qu.:74.0 3rd Qu.:68.00 3rd Qu.:74.00
## Max. :96.00 Max. :96.0 Max. :96.00 Max. :97.00
##
## power_shot_power power_jumping power_stamina power_strength
## Min. :14.00 Min. :19.00 Min. :12.00 Min. :20.00
## 1st Qu.:48.00 1st Qu.:58.00 1st Qu.:56.00 1st Qu.:58.00
## Median :59.00 Median :66.00 Median :66.00 Median :66.00
## Mean :58.18 Mean :64.93 Mean :62.89 Mean :65.23
## 3rd Qu.:68.00 3rd Qu.:73.00 3rd Qu.:74.00 3rd Qu.:74.00
## Max. :95.00 Max. :95.00 Max. :97.00 Max. :97.00
##
## power_long_shots mentality_aggression mentality_interceptions
## Min. : 4.00 Min. : 9.00 Min. : 3.00
## 1st Qu.:32.00 1st Qu.:44.00 1st Qu.:25.00
## Median :51.00 Median :58.00 Median :52.00
## Mean :46.81 Mean :55.74 Mean :46.38
## 3rd Qu.:62.00 3rd Qu.:69.00 3rd Qu.:64.00
## Max. :94.00 Max. :95.00 Max. :92.00
##
## mentality_positioning mentality_vision mentality_penalties mentality_composure
## Min. : 2.00 Min. : 9.00 Min. : 7.00 Min. :12.00
## 1st Qu.:39.00 1st Qu.:44.00 1st Qu.:39.00 1st Qu.:51.00
## Median :55.00 Median :55.00 Median :49.00 Median :60.00
## Mean :50.07 Mean :53.61 Mean :48.38 Mean :58.53
## 3rd Qu.:64.00 3rd Qu.:64.00 3rd Qu.:60.00 3rd Qu.:67.00
## Max. :95.00 Max. :94.00 Max. :92.00 Max. :96.00
##
## defending_marking defending_standing_tackle defending_sliding_tackle
## Min. : 1.00 Min. : 5.00 Min. : 3.00
## 1st Qu.:29.00 1st Qu.:27.00 1st Qu.:24.00
## Median :52.00 Median :55.00 Median :52.00
## Mean :46.85 Mean :47.64 Mean :45.61
## 3rd Qu.:64.00 3rd Qu.:66.00 3rd Qu.:64.00
## Max. :94.00 Max. :92.00 Max. :90.00

```

```

##
## goalkeeping_diving goalkeeping_handling goalkeeping_kicking
## Min. : 1.00 Min. : 1.00 Min. : 1.00
## 1st Qu.: 8.00 1st Qu.: 8.00 1st Qu.: 8.00
## Median :11.00 Median :11.00 Median :11.00
## Mean :16.57 Mean :16.35 Mean :16.21
## 3rd Qu.:14.00 3rd Qu.:14.00 3rd Qu.:14.00
## Max. :90.00 Max. :92.00 Max. :93.00
##
## goalkeeping_positioning goalkeeping_reflexes ls
## Min. : 1.00 Min. : 1.00 Length:18278
## 1st Qu.: 8.00 1st Qu.: 8.00 Class :character
## Median :11.00 Median :11.00 Mode :character
## Mean :16.37 Mean :16.71
## 3rd Qu.:14.00 3rd Qu.:14.00
## Max. :91.00 Max. :92.00
##
## st rs lw lf
## Length:18278 Length:18278 Length:18278 Length:18278
## Class :character Class :character Class :character Class :character
## Mode :character Mode :character Mode :character Mode :character
##
##
##
##
## cf rf rw lam
## Length:18278 Length:18278 Length:18278 Length:18278
## Class :character Class :character Class :character Class :character
## Mode :character Mode :character Mode :character Mode :character
##
##
##
## cam ram lm lcm
## Length:18278 Length:18278 Length:18278 Length:18278
## Class :character Class :character Class :character Class :character
## Mode :character Mode :character Mode :character Mode :character
##
##
##
## cm rcm rm lwb
## Length:18278 Length:18278 Length:18278 Length:18278
## Class :character Class :character Class :character Class :character
## Mode :character Mode :character Mode :character Mode :character
##
##
##
## ldm cdm rdm rwb
## Length:18278 Length:18278 Length:18278 Length:18278
## Class :character Class :character Class :character Class :character
## Mode :character Mode :character Mode :character Mode :character
##

```

```
##
##
##
##      lb              lcb              cb              rcb
## Length:18278      Length:18278      Length:18278      Length:18278
## Class :character   Class :character   Class :character   Class :character
## Mode  :character   Mode  :character   Mode  :character   Mode  :character
##
##
##
##      rb
## Length:18278
## Class :character
## Mode  :character
##
##
##
##
```

1.2 - CLASIFICACIÓN DE LOS JUGADORES

La variable Rating indica la calidad del jugador de la siguiente forma: **Excelente de 90 a 99, Muy bueno de 80 a 89, Bueno de 70 a 79, Regular de 50 a 69, Malo de 40 a 49, Muy malo de 0 a 39**. Cread una variable categórica denominada *clasificacion*, que clasifique al jugador en una de estas categorías.

```
fifa <- cbind(fifa,clasificacion=c(""))

fifa$clasificacion[fifa$overall >= 90 & fifa$overall <= 99] <- "Excelente"
fifa$clasificacion[fifa$overall >= 80 & fifa$overall <= 89] <- "Muy bueno"
fifa$clasificacion[fifa$overall >= 70 & fifa$overall <= 79] <- "Bueno"
fifa$clasificacion[fifa$overall >= 50 & fifa$overall <= 69] <- "Regular"
fifa$clasificacion[fifa$overall >= 40 & fifa$overall <= 49] <- "Malo"
fifa$clasificacion[fifa$overall >= 0 & fifa$overall <= 39] <- "Muy malo"
```

Vamos a clasificar a los jugadores según su edad:

o **Muy jóvenes (16-19)** o **Jóvenes (20-29)** o **Experimentados (30-35)** o **Muy Experimentados (>35)**

Para ello crearemos una variable rangoedad:

```
fifa <- cbind(fifa,rangoedad=c(""))

fifa$rangoedad[fifa$age >= 16 & fifa$age <= 19] <- "Muy joven"
fifa$rangoedad[fifa$age >= 20 & fifa$age <= 29] <- "Joven"
fifa$rangoedad[fifa$age >= 30 & fifa$age <= 35] <- "Experimentado"
fifa$rangoedad[fifa$age >= 35] <- "Muy experimentado"
```

Vamos a clasificar a los jugadores en base a si son internacionales o no:

Para ello, crearemos una variable internacional que indique si el jugador es internacional, es decir, si está en la selección nacional. La variable internacional debe codificarse como una variable dicotómica, que toma

el valor 0 cuando el jugador no tiene dorsal en la selección (valor ausente en nation_jersey_number) y 1 cuando tiene dorsal (valor en nation_jersey_number).

```
fifa <- cbind(fifa,internacional=c(as.numeric(0)))  
fifa$internacional[fifa$nation_jersey_number != 0] <- 1
```

Vamos a clasificar a los jugadores por pertenecer a clubes de la superliga o no:

Para ello crearemos una variable superliga:

```
fifa <- cbind(fifa,superliga=c(as.numeric(0)))  
fifa$superliga[fifa$club == "FC Barcelona" | fifa$club == "Atlético Madrid" | fifa$club == "Real Madrid"] <- 1
```

2 - ESTADÍSTICA DESCRIPTIVA Y VISUALIZACIÓN

2.1 - ANÁLISIS DESCRIPTIVO

El Número de observaciones es:

```
nrow(fifa)
```

```
## [1] 18278
```

El Número de variables es:

```
ncol(fifa)
```

```
## [1] 108
```

El número de clubs es :

```
length(unique(fifa$club))
```

```
## [1] 698
```

El número de nacionalidades es :

```
length(unique(fifa$nationality))
```

```
## [1] 162
```

2.2 - VALORES AUSENTES

Vamos a comprobar si tenemos ceros y/o elementos vacíos

```
# Comprobamos valores ausentes
```

```
colSums(is.na(fifa) | fifa=="")
```

```
##          sofifa_id          player_url
##          0          0
##      short_name      long_name
##          0          0
##          age          dob
##          0          0
##      height_cm      weight_kg
##          0          0
##      nationality      club
##          0          0
##      overall      potential
##          0          0
##      value_eur      wage_eur
##          0          0
##      player_positions      preferred_foot
##          0          0
##      international_reputation      weak_foot
##          0          0
##      skill_moves      work_rate
##          0          0
##      body_type      real_face
##          0          0
##      release_clause_eur      player_tags
##          1298          16779
##      team_position      team_jersey_number
##          240          240
##      loaned_from      joined
##          17230          1288
##      contract_valid_until      nation_position
##          240          17152
##      nation_jersey_number      pace
##          17152          2036
##      shooting      passing
##          2036          2036
##      dribbling      defending
##          2036          2036
##      physic      gk_diving
##          2036          16242
##      gk_handling      gk_kicking
##          16242          16242
##      gk_reflexes      gk_speed
##          16242          16242
##      gk_positioning      player_traits
##          16242          10712
##      attacking_crossing      attacking_finishing
##          0          0
##      attacking_heading_accuracy      attacking_short_passing
##          0          0
##      attacking_volleys      skill_dribbling
```

##	0	0
##	skill_curve	skill_fk_accuracy
##	0	0
##	skill_long_passing	skill_ball_control
##	0	0
##	movement_acceleration	movement_sprint_speed
##	0	0
##	movement_agility	movement_reactions
##	0	0
##	movement_balance	power_shot_power
##	0	0
##	power_jumping	power_stamina
##	0	0
##	power_strength	power_long_shots
##	0	0
##	mentality_aggression	mentality_interceptions
##	0	0
##	mentality_positioning	mentality_vision
##	0	0
##	mentality_penalties	mentality_composure
##	0	0
##	defending_marking	defending_standing_tackle
##	0	0
##	defending_sliding_tackle	goalkeeping_diving
##	0	0
##	goalkeeping_handling	goalkeeping_kicking
##	0	0
##	goalkeeping_positioning	goalkeeping_reflexes
##	0	0
##	ls	st
##	2036	2036
##	rs	lw
##	2036	2036
##	lf	cf
##	2036	2036
##	rf	rw
##	2036	2036
##	lam	cam
##	2036	2036
##	ram	lm
##	2036	2036
##	lcm	cm
##	2036	2036
##	rcm	rm
##	2036	2036
##	lwb	ldm
##	2036	2036
##	cdm	rdm
##	2036	2036
##	rwf	lb
##	2036	2036
##	lcb	cb
##	2036	2036
##	rcb	rb

```
##                2036                2036
##            clasificacion            rangoedad
##                0                0
##            internacional            superliga
##                0                0
```

No se eliminan los valores ausentes de la variable nation_jersey_number ya que dichos valores indican que el jugador no ha jugado nunca en el equipo nacional.

```
# Comprobamos valores nulos
```

```
sapply(fifa, function(x) sum(is.null(x)))
```

```
##            sofifa_id            player_url
##                0                0
##            short_name            long_name
##                0                0
##                age                dob
##                0                0
##            height_cm            weight_kg
##                0                0
##            nationality            club
##                0                0
##            overall            potential
##                0                0
##            value_eur            wage_eur
##                0                0
##            player_positions            preferred_foot
##                0                0
## international_reputation            weak_foot
##                0                0
##            skill_moves            work_rate
##                0                0
##            body_type            real_face
##                0                0
##            release_clause_eur            player_tags
##                0                0
##            team_position            team_jersey_number
##                0                0
##            loaned_from            joined
##                0                0
##            contract_valid_until            nation_position
##                0                0
##            nation_jersey_number            pace
##                0                0
##            shooting            passing
##                0                0
##            dribbling            defending
##                0                0
##            physic            gk_diving
##                0                0
##            gk_handling            gk_kicking
##                0                0
```

##	gk_reflexes	gk_speed
##	0	0
##	gk_positioning	player_traits
##	0	0
##	attacking_crossing	attacking_finishing
##	0	0
##	attacking_heading_accuracy	attacking_short_passing
##	0	0
##	attacking_volleys	skill_dribbling
##	0	0
##	skill_curve	skill_fk_accuracy
##	0	0
##	skill_long_passing	skill_ball_control
##	0	0
##	movement_acceleration	movement_sprint_speed
##	0	0
##	movement_agility	movement_reactions
##	0	0
##	movement_balance	power_shot_power
##	0	0
##	power_jumping	power_stamina
##	0	0
##	power_strength	power_long_shots
##	0	0
##	mentality_aggression	mentality_interceptions
##	0	0
##	mentality_positioning	mentality_vision
##	0	0
##	mentality_penalties	mentality_composure
##	0	0
##	defending_marking	defending_standing_tackle
##	0	0
##	defending_sliding_tackle	goalkeeping_diving
##	0	0
##	goalkeeping_handling	goalkeeping_kicking
##	0	0
##	goalkeeping_positioning	goalkeeping_reflexes
##	0	0
##	ls	st
##	0	0
##	rs	lw
##	0	0
##	lf	cf
##	0	0
##	rf	rw
##	0	0
##	lam	cam
##	0	0
##	ram	lm
##	0	0
##	lcm	cm
##	0	0
##	rcm	rm
##	0	0

```
##          lwb          ldm
##          0          0
##          cdm          rdm
##          0          0
##          rwb          lb
##          0          0
##          lcb          cb
##          0          0
##          rcb          rb
##          0          0
##          clasificacion  rangoedad
##          0          0
##          internacional  superliga
##          0          0
```

Exportamos los datos preprocesados a un fichero .csv

```
# Exportación de los datos preprocesados a un fichero .csv
write.csv(fifa,"players_20_final.csv")
```