projet

Kevin Chen

2023-04-10

```
library(readr)
data=read.csv("champions.csv",sep=';',row.names=1)
data$CLASS=as.factor(data$CLASS)
data$POSITION=as.factor(data$POSITION)
print(data)
```

```
##
                     HP X.HP AD
                                   X.AD
                                                 X.AS AR X.AR MR X.MR
                                           AS
                                                                        MS Range
##
                    650
                         114
                             60 5.0000 0.651
                                                 2.5% 38 4.45 32 2.05 345
    Aatrox
                                                                              175
##
    Ahri
                    590
                          96 53 3.0000 0.668
                                                  2 % 21 4.70 30 1.30 330
                                                                              550
##
    Akali
                    570
                         119 62 3.3000 0.625
                                                 3.2% 23 4.70 37 2.05 345
                                                                              125
##
    Akshan
                    630
                         104 52 3.5000 0.638
                                                  4 % 26 4.20 30 1.30 330
                                                                              500
##
    Alistar
                    685
                         120 62 3.7500 0.625 2.125% 47 4.70 32 2.05 330
                                                                              125
##
    Amumu
                    685
                          94 53 3.8000 0.736
                                               2.18% 30 4.00 32 2.05 335
                                                                              125
                                                1.68% 21 4.90 30 1.30 325
##
    Anivia
                    550
                          92 51 3.2000 0.625
                                                                              600
##
    Annie
                    560
                         102 50 2.6500 0.579
                                                1.36% 19 4.70 30 1.30 335
                                                                              625
##
    Aphelios
                    580
                         102 55 3.0000 0.640
                                                 2.1% 26 4.20 30 1.30 325
                                                                              550
                                                3.33% 26 4.60 30 1.30 325
##
    Ashe
                    640
                         101 59 2.9500 0.658
                                                                              600
##
    Aurelion Sol
                    620
                          95 55 3.2000 0.625
                                                 1.5% 22 4.30 30 1.30 325
                                                                              550
                         119 52 3.5000 0.625
                                                  6 % 22 5.00 30 1.30 335
##
    Azir
                    550
                                                                              525
##
    Bard
                    630
                         103 52 3.0000 0.625
                                                  2 % 34 5.20 30 1.30 330
                                                                              500
    Bel'Veth
                          99 60 1.7000 0.850
                                                  0 % 32 4.70 32 2.05 340
##
                    610
                                                                              175
##
    Blitzcrank
                    633
                         109 62 3.5000 0.650
                                                1.13% 40 4.70 28 2.05 325
                                                                              125
##
    Brand
                    590
                         102 57 3.0000 0.625
                                                1.36% 22 4.70 30 1.30 340
                                                                              550
##
                    640
                         112 55 3.2000 0.644
                                                 3.5% 47 5.20 32 2.05 335
    Braum
                                                                              125
                                                  4 % 27 4.70 30 1.30 325
##
    Caitlyn
                    580
                         107 60 3.8000 0.681
                                                                              650
                                                 2.5% 35 5.00 32 2.05 340
##
    Camille
                    646
                          99 68 3.5000 0.644
                                                                              125
##
                    630
                         104 53 3.0000 0.647
                                                 1.5% 18 4.70 32 1.30 328
                                                                              550
    Cassiopeia
    Cho'Gath
                    644
                          94 69 4.2000 0.625
                                                1.44% 38 5.00 32 2.05 345
                                                                              125
##
    Corki
                    588
                         105 55 2.8000 0.638
                                                 2.3% 28 4.70 30 1.30 325
                                                                              550
##
    Darius
                    652
                         114 64 5.0000 0.625
                                                  1 % 39 5.20 32 2.05 340
                                                                              175
    Diana
                         109 57 3.0000 0.625
                                                2.25% 31 4.30 32 2.05 345
##
                    640
                                                                              150
##
    Dr. Mundo
                    613
                         103 61 2.5000 0.670
                                                 3.3% 32 3.70 29 2.30 345
                                                                              125
                                                 2.7% 29 4.50 30 1.30 330
##
    Draven
                    675
                         104 62 3.6000 0.679
                                                                              550
##
    Ekko
                    655
                          99 58 3.0000 0.688
                                                 3.3% 32 4.20 32 2.05 340
                                                                              125
##
    Elise
                    650
                         109 55 3.0000 0.625
                                                1.75% 30 5.20 30 1.30 330
                                                                              550
                          98 61 3.0000 0.667
                                                 2.1% 37 4.70 32 2.05 335
                                                                              125
##
    Evelynn
                    642
##
    Ezreal
                    600
                         102 60 2.5000 0.625
                                                 2.5% 24 4.70 30 1.30 325
                                                                              550
##
    Fiddlesticks
                    650
                         106 55 2.6500 0.625
                                                2.11% 34 4.70 30 1.30 335
                                                                              480
##
    Fiora
                    620
                          99 68 3.3000 0.690
                                                 3.2% 33 4.70 32 2.05 345
                                                                              150
                         106 58 3.0000 0.658
##
    Fizz
                    640
                                                 3.1% 22 4.60 32 2.05 335
                                                                              175
                         126 59 3.5000 0.625
                                                 1.5% 24 4.70 32 2.05 335
##
    Galio
                    632
                                                                              150
                                                 3.2% 31 4.20 32 2.05 345
##
    Gangplank
                    600
                         114 64 3.7000 0.658
                                                                              125
##
    Garen
                    690
                          98 66 4.5000 0.625
                                                3.65% 36 4.20 32 1.55 340
                                                                              175
```

```
##
    Gnar
                    540
                          79 57 3.0000 0.625
                                                 6 % 32 3.70 30 1.30 335
                                                                             400
                         109 64 3.5000 0.675
##
                    670
                                               2.05% 38 4.80 32 2.05 330
                                                                             125
    Gragas
##
    Graves
                    625
                         106 68 4.0000 0.475
                                                2.6% 33 4.60 32 2.05 340
                                                                             425
##
    Gwen
                    620
                         109 63 3.0000 0.690
                                               2.25% 39 5.20 32 2.05 340
                                                                             150
##
    Hecarim
                    625
                          99 66 3.2000 0.670
                                                2.5% 32 5.45 32 2.05 345
                                                                             175
##
                    558
                         101 56 2.7000 0.625
                                               1.36% 19 4.20 30 1.30 340
    Heimerdinger
                                                                             550
                                                2.5% 35 5.00 32 2.05 350
##
    Illaoi
                    656
                         109 68 5.0000 0.625
                                                                             125
                                                2.5% 36 4.70 30 2.05 335
##
    Irelia
                    590
                         124 65 4.0000 0.656
                                                                             200
##
    Ivern
                    655
                          99 50 3.0000 0.644
                                                3.4% 27 4.70 32 2.05 330
                                                                             475
                                                                             500
##
    Janna
                    570
                          84 52 3.0000 0.625
                                                 3 % 28 5.00 30 1.30 325
    Jarvan IV
                    640
                         104 64 3.4000 0.658
                                                2.5% 36 4.80 32 2.05 340
                                                                             175
##
                         100 68 4.2500 0.638
                                                3.4% 36 4.20 32 2.05 350
                                                                             125
    Jax
                    665
    Jayce
##
                    590
                         109 57 4.2500 0.658
                                                 3 % 22 5.00 30 1.30 335
                                                                             125
##
    Jhin
                    655
                         107 59 4.7000 0.625
                                                 3 % 24 4.70 30 1.30 330
                                                                             550
##
    Jinx
                    630
                         100 59 3.4000 0.625
                                               1.36% 26 4.70 30 1.30 325
                                                                             525
##
    K'Sante
                    610
                         114 64 3.5000 0.625
                                                2.5% 33 4.70 30 2.10 330
                                                                             175
##
                         102 59 2.0000 0.644
                                                1.8% 28 4.20 30 1.30 335
                                                                             525
    Kai'Sa
                    670
##
    Kalista
                    574
                         114 66 3.7500 0.694
                                                4.5% 24 5.20 30 1.30 330
                                                                             525
                         109 51 3.3000 0.625
                                                2.3% 28 5.00 30 1.30 335
                                                                             525
##
    Karma
                    604
##
    Karthus
                    620
                         110 46 3.2500 0.625
                                               2.11% 21 4.70 30 1.30 335
                                                                             450
##
    Kassadin
                    646
                         119 59 3.9000 0.640
                                                3.7% 19 4.00 30 1.30 335
                                                                             150
##
    Katarina
                         108 58 3.2000 0.658
                                               2.74% 28 4.70 32 2.05 335
                    672
                                                                             125
    Kayle
                          92 50 2.5000 0.625
                                                1.5% 26 4.20 22 1.30 335
##
                    670
                                                                             175
                         109 68 3.3000 0.669
                                                2.7% 38 4.50 32 2.05 340
##
    Kayn
                    655
                                                                             175
                          98 48 3.7500 0.625
                                                3.4% 29 4.95 30 1.30 335
##
    Kennen
                    611
                                                                             550
    Kha'Zix
                    643
                          99 63 3.1000 0.668
                                                2.7% 36 4.20 32 2.05 350
                                                                             125
##
                    610
                          99 65 2.5000 0.625
                                                3.5% 29 4.70 30 1.30 325
                                                                             500
    Kindred
                                                3.5% 35 5.20 28 2.05 345
##
    Kled & Skaarl
                    810
                         144 65 3.5000 0.625
                                                                             125
##
                    635
                          99 61 3.1000 0.665
                                               2.65% 24 4.45 30 1.30 330
                                                                             500
    Kog'Maw
##
    LeBlanc
                    598
                         111 55 3.5000 0.625
                                                1.4% 22 4.70 30 1.30 340
                                                                             525
##
    Lee Sin
                    645
                         105 66 3.7000 0.651
                                                 3 % 34 4.90 32 2.05 345
                                                                             125
##
    Leona
                    646
                         101 60 3.0000 0.625
                                                2.9% 47 4.80 32 2.05 335
                                                                             125
##
    Lillia
                    605
                         105 61 3.1000 0.625
                                                2.7% 22 5.20 32 1.55 330
                                                                             325
                    620
                         110 55 2.7000 0.656
                                               1.36% 22 4.90 30 1.30 325
                                                                             550
##
    Lissandra
##
    Lucian
                    641
                         100 60 2.9000 0.638
                                                3.3% 28 4.20 30 1.30 335
                                                                             500
##
    Lulu
                    595
                          88 47 2.6000 0.625
                                               2.25% 29 4.90 30 1.30 330
                                                                             550
##
    Lux
                    560
                          99 54 3.3000 0.669
                                                 2 % 19 5.20 30 1.30 330
                                                                             550
##
    Malphite
                    644
                         104 62 4.0000 0.736
                                                3.4% 37 4.95 28 2.05 335
                                                                             125
##
    Malzahar
                    580
                         101 55 3.0000 0.625
                                                1.5% 18 4.70 30 1.30 335
                                                                             500
##
    Maokai
                    635
                         109 64 3.3000 0.800 2.125% 39 5.20 32 2.05 335
                                                                             125
                         100 65 2.2000 0.679
                                                 2 % 33 4.20 32 2.05 355
##
    Master Yi
                    669
                                                                             175
##
    Milio
                    560
                          88 48 3.2000 0.625
                                                 3 % 28 4.90 30 1.30 330
                                                                             525
##
    Miss Fortune
                    640
                         103 52 2.4000 0.656
                                                 3 % 28 4.20 30 1.30 325
                                                                             550
##
    Mordekaiser
                    645
                         104 61 4.0000 0.625
                                                 1 % 37 4.20 32 2.05 335
                                                                             175
##
    Morgana
                    630
                         104 56 3.5000 0.625
                                               1.53% 25 5.00 30 1.30 335
                                                                             450
##
    Nami
                    560
                          88 51 3.1000 0.644
                                               2.61% 29 5.20 30 1.30 335
                                                                             550
##
    Nasus
                    631
                         104 67 3.5000 0.638
                                               3.48% 34 4.70 32 2.05 350
                                                                             125
                         100 61 3.3000 0.706
                                                 1 % 39 4.95 32 2.05 325
##
    Nautilus
                    646
                                                                             175
##
    Neeko
                    610
                         104 48 2.5000 0.625
                                                3.5% 21 5.20 30 1.30 340
                                                                             550
##
    Nidalee
                    610
                         109 58 3.5000 0.638
                                               3.22% 28 4.70 30 1.30 335
                                                                             525
##
                    570
                         101 58 2.0000 0.697
                                                 3 % 27 4.20 32 2.05 340
                                                                             225
    Nilah
##
    Nocturne
                    655
                         109 62 2.6000 0.721
                                                2.7% 38 4.70 32 1.55 345
                                                                             125
##
    Nunu & Willump 610
                          90 61 3.0000 0.625
                                               2.25% 29 4.20 32 2.05 345
                                                                             125
##
    Olaf
                    645
                         119 68 4.7000 0.694
                                                2.7% 35 4.20 32 2.05 350
                                                                             125
```

```
525
    Orianna
                    600
                         105 40 2.6000 0.658
                                                3.5% 20 4.20 26 1.30 325
##
    Ornn
                    660
                         109 69 3.5000 0.625
                                                 2 % 33 5.20 32 2.05 335
                                                                             175
                         109 64 3.3000 0.658
                                               2.95% 40 4.95 28 2.05 345
##
    Pantheon
                    650
                                                                             175
                                                                             125
##
                    610
                         104 64 4.0000 0.625
                                                2.5% 38 4.70 32 2.05 345
    Poppy
##
    Pyke
                    670
                         104 62 2.0000 0.667
                                                2.5% 45 4.70 32 2.05 330
                                                                             150
##
                    590
                         124 66 3.1000 0.688
                                                2.1% 28 4.70 32 2.05 335
                                                                             150
    Qiyana
                                                3.1% 28 4.70 30 1.30 335
##
    Quinn
                    603
                          99 59 2.4000 0.668
                                                                             525
##
    Rakan
                    610
                          99 62 3.5000 0.635
                                                 3 % 32 5.10 32 2.05 335
                                                                             300
##
    Rammus
                    675
                          94 55 2.7500 0.656 2.215% 40 5.50 32 2.05 335
                                                                             125
##
                    640
                                                 2 % 36 4.95 32 2.05 335
    Rek'Sai
                          99 61 3.0000 0.667
                                                                             175
##
    Rell
                    610
                         104 55 3.0000 0.550
                                                 2 % 32 4.20 32 2.05 335
                                                                             175
                                                                             550
##
    Renata Glasc
                    545
                          94 49 3.0000 0.625
                                               2.11% 27 4.70 30 1.30 330
##
    Renekton
                    660
                         111 69 4.1500 0.665
                                               2.75% 35 5.20 32 2.05 345
                                                                             125
##
    Rengar
                    620
                         104 68 3.0000 0.667
                                                 3 % 34 4.20 32 2.05 345
                                                                             125
##
    Riven
                    630
                         100 64 3.0000 0.625
                                                3.5% 33 4.40 32 2.05 340
                                                                             125
##
    Rumble
                    659
                          99 61 3.2000 0.644
                                               1.85% 36 4.70 28 1.55 345
                                                                             125
##
                    645
                                               2.11% 22 4.20 32 1.30 340
                                                                             550
    Ryze
                         124 58 3.0000 0.625
##
    Samira
                    600
                         108 57 3.3000 0.658
                                                3.3% 26 4.70 30 1.30 335
                                                                             500
##
                    630
                         114 66 4.0000 0.688
                                                3.5% 34 5.45 32 2.05 340
                                                                             150
    Sejuani
##
    Senna
                    530
                          89 50 0.0000 0.625
                                                 4 % 28 4.70 30 1.30 330
                                                                             600
##
    Seraphine
                    570
                         104 55 3.0000 0.669
                                                 1 % 19 4.20 30 1.30 325
                                                                             525
##
    Sett
                    670
                         114 60 4.0000 0.625
                                               1.75% 33 5.20 28 2.05 340
                                                                             125
##
    Shaco
                    630
                          99 63 3.0000 0.694
                                                 3 % 30 4.00 32 2.05 345
                                                                             125
    Shen
                    610
                          99 60 3.0000 0.751
                                                 3 % 34 4.20 32 2.05 340
                                                                             125
##
##
                    665
                         109 66 3.4000 0.658
                                                2.5% 38 4.55 32 2.05 350
                                                                             125
    Shyvana
                                                1.9% 34 4.70 32 2.05 345
##
    Singed
                    650
                          99 63 3.4000 0.613
                                                                             125
##
    Sion
                    655
                          87 68 4.0000 0.679
                                                1.3% 32 4.20 32 2.05 345
                                                                             175
                    600
                                                                             500
##
    Sivir
                         104 58 2.8000 0.625
                                                 2 % 26 4.45 30 1.30 335
##
    Skarner
                    650
                          99 65 4.5000 0.625
                                                2.1% 38 5.00 32 2.05 335
                                                                             125
##
    Sona
                    550
                          91 49 3.0000 0.644
                                                2.3% 26 4.20 30 1.30 325
                                                                             550
##
    Soraka
                    605
                          88 50 3.0000 0.625
                                               2.14% 32 5.00 30 1.30 325
                                                                             550
##
    Swain
                    595
                          99 58 2.7000 0.625
                                               2.11% 26 5.20 30 1.30 330
                                                                             525
##
    Sylas
                    575
                         129 61 3.0000 0.645
                                                3.5% 27 5.20 32 2.55 340
                                                                             175
                    563
                         104 54 2.9000 0.625
                                                 2 % 25 4.60 30 1.30 330
                                                                             550
##
    Syndra
##
    Tahm Kench
                    640
                         103 56 3.2000 0.658
                                                2.5% 42 4.70 32 2.05 335
                                                                             175
##
                    550
                         104 58 3.3000 0.625
                                               1.36% 18 4.70 30 1.30 330
                                                                             525
    Taliyah
##
    Talon
                    658
                         109 68 3.1000 0.625
                                                2.9% 30 4.70 39 2.05 335
                                                                             125
##
    Taric
                    645
                          99 55 3.5000 0.625
                                                 2 % 40 4.60 28 2.05 340
                                                                             150
##
    Teemo
                    598
                         104 54 3.0000 0.690
                                               3.38% 24 4.95 30 1.30 330
                                                                             500
##
    Thresh
                    600
                         120 56 2.2000 0.625
                                                3.5% 28 0.00 30 1.30 330
                                                                             450
    Tristana
                    670
                         102 59 3.7000 0.656
                                                1.5% 26 4.20 30 1.30 325
                                                                             525
##
##
    Trundle
                    686
                         110 68 3.0000 0.600
                                                2.9% 37 3.90 32 2.05 350
                                                                             175
##
    Tryndamere
                    696
                         115 72 4.0000 0.670
                                                2.9% 33 4.30 32 2.05 345
                                                                             125
##
    Twisted Fate
                    604
                         108 52 3.3000 0.651
                                               3.22% 21 4.35 30 1.30 330
                                                                             525
##
    Twitch
                    682
                         100 59 3.1000 0.679
                                               3.38% 27 4.20 30 1.30 330
                                                                             550
##
    Udyr
                    664
                          92 62 4.0000 0.650
                                                 3 % 31 4.70 32 2.05 350
                                                                             125
##
    Urgot
                    655
                         102 63 4.0000 0.625
                                               3.75% 36 5.45 32 2.05 330
                                                                             350
##
                         105 62 3.4000 0.658
                                                 4 % 27 4.60 30 1.30 330
                                                                             575
    Varus
                    600
##
    Vayne
                    550
                         103 60 2.3500 0.658
                                                3.3% 23 4.60 30 1.30 330
                                                                             550
                                                                             550
##
    Veigar
                    550
                         108 52 2.7000 0.625
                                               2.24% 18 5.20 32 1.30 340
    Vel'Koz
##
                    590
                         102 55 3.1416 0.625
                                               1.36% 22 4.70 30 1.30 340
                                                                             525
                                                                             550
##
    Vex
                    590
                         104 54 2.7500 0.669
                                                 1 % 23 4.45 28 1.30 335
##
    ۷i
                    655
                          99 63 3.0000 0.644
                                                 2 % 30 4.70 32 2.05 340
                                                                             125
##
    Viego
                    630
                         109 57 3.5000 0.658
                                                2.5% 34 5.20 32 2.05 345
                                                                             200
```

```
104 53 3.0000 0.658
                                                2.11% 23 5.20 30 1.30 335
                                                                              525
##
    Viktor
                    600
##
    Vladimir
                    607
                         110 55 3.0000 0.658
                                                  2 % 27 4.50 30 1.30 330
                                                                              450
                                                  2 % 31 5.20 32 2.05 340
                                                                              150
##
    Volibear
                    650
                         104 60 3.5000 0.625
    Warwick
                    620
                          99 65 3.0000 0.638
                                                 2.3% 33 4.40 32 2.05 335
                                                                              125
##
##
    Wukong
                    610
                          99 66 3.5000 0.680
                                                  3 % 31 4.70 28 2.05 340
                                                                              175
##
    Xayah
                    660
                         102 60 3.5000 0.658
                                                 3.9% 25 4.20 30 1.30 330
                                                                              525
##
    Xerath
                    596
                         106 55 3.0000 0.625
                                                1.36% 22 4.70 30 1.30 340
                                                                              525
##
    Xin Zhao
                    640
                         106 63 3.0000 0.645
                                                 3.5% 35 4.70 32 2.05 345
                                                                              175
##
    Yasuo
                    590
                         101 60 3.0000 0.697
                                                 3.5% 30 4.60 32 2.05 345
                                                                              175
##
    Yone
                    620
                          99 60 2.0000 0.625
                                                 3.5% 28 4.60 32 2.05 345
                                                                              175
##
    Yorick
                    650
                         114 62 5.0000 0.625
                                                  2 % 39 5.20 32 2.05 340
                                                                              175
##
    Yuumi
                                                  1 % 25 4.20 25 1.10 330
                                                                              425
                    500
                          69 49 3.1000 0.625
                    685
                                                 1.6% 33 4.70 32 2.05 340
##
    Zac
                         109 60 3.4000 0.736
                                                                              175
##
    Zed
                    654
                          99 63 3.4000 0.651
                                                 3.3% 32 4.70 29 2.05 345
                                                                              125
##
    Zeri
                    630
                         110 53 1.3000 0.658
                                                  2 % 24 4.20 30 1.30 330
                                                                              500
                                                  2 % 22 4.50 30 1.30 325
##
    Ziggs
                    606
                         106 54 3.1000 0.656
                                                                              550
##
    Zilean
                    574
                          96 52 3.0000 0.625
                                                2.13% 24 5.00 30 1.30 335
                                                                              550
                                                 2.5% 21 4.70 30 1.30 340
##
    Zoe
                    630
                         106 58 3.3000 0.625
                                                                              550
##
                    574
                          93 53 3.2000 0.625
                                                2.11% 29 4.20 30 1.30 340
                                                                              575
    Zyra
                          CLASS POSITION
##
##
    Aatrox
                        Fighter
                                      Top
##
    Ahri
                           Mage
                                      Mid
    Akali
                       Assassin
##
                                      Mid
##
    Akshan
                       Marksman
                                      Mid
##
    Alistar
                           Tank
                                  Support
    Amumu
                            Tank
                                  Support
##
    Anivia
                            Mage
                                      Mid
##
    Annie
                            Mage
                                      Mid
##
                                      ADC
    Aphelios
                       Marksman
##
                                      ADC
    Ashe
                       Marksman
##
    Aurelion Sol
                            Mage
                                      Mid
##
    Azir
                     Specialist
                                      Mid
##
    Bard
                            Mage
                                  Support
##
    Bel'Veth
                        Duelist
                                   Jungle
##
    Blitzcrank
                            Tank
                                  Support
                           Mage
##
    Brand
                                  Support
##
    Braum
                            Tank
                                  Support
##
    Caitlyn
                       Marksman
                                      ADC
##
    Camille
                        Fighter
                                      Top
##
    Cassiopeia
                           Mage
                                      Mid
##
    Cho'Gath
                     Specialist
                                      Top
##
    Corki
                       Marksman
                                      Mid
##
    Darius
                        Fighter
                                      Top
##
    Diana
                       Assassin
                                   Jungle
##
    Dr. Mundo
                        Fighter
                                      Top
##
    Draven
                                      ADC
                       Marksman
    Ekko
##
                       Assassin
                                      Mid
##
    Elise
                       Assassin
                                   Jungle
##
    Evelynn
                       Assassin
                                  Support
##
    Ezreal
                       Marksman
                                      ADC
    Fiddlesticks
                     Specialist
                                   Jungle
##
  Fiora
                        Duelist
                                      Top
##
    Fizz
                       Assassin
                                      Mid
    Galio
##
                            Tank
                                      Mid
```

##	Gangplank	Specialist	Top
##	Garen	Fighter	Top
##	Gnar	Specialist	Top
##	Gragas	Tank	Top
##	Graves	Specialist	Jungle
##	Gwen	Duelist	Top
##	Hecarim	Fighter	Jungle
##	Heimerdinger	Specialist	Support
##	Illaoi	Fighter	Top
##	Irelia	Fighter	Top
##	Ivern	Mage	Jungle
##	Janna	Enchanter	Support
##	Jarvan IV	Fighter	Jungle
##	Jax	Duelist	Тор
##	Jayce	Mage	Mid
##	Jhin	Marksman	ADC
##	Jinx	Marksman	ADC
##	K'Sante	Fighter	Top
##	Kai'Sa	Marksman	ADC
##	Kalista	Marksman	ADC
##	Karma	Enchanter	Support
##	Karthus	Mage	Jungle
##	Kassadin	Assassin	Mid
##	Katarina	Assassin	Mid
##	Kayle	Specialist	Тор
##	Kayn	Assassin	Jungle
##	Kennen	Specialist	Тор
##	Kha'Zix	Assassin	Jungle
##	Kindred	Marksman	Jungle
##	Kled & Skaarl	Duelist	Тор
##	Kog'Maw	Marksman	ADC
##	LeBlanc	Mage	Mid
##	Lee Sin	Fighter	Jungle
##	Leona	Tank	Support
##	Lillia	Fighter	Jungle
##	Lissandra	Mage	Mid
##	Lucian	Marksman	ADC
##	Lulu	Enchanter	Support
##	Lux	Mage	Support
##	Malphite	Tank	Тор
##	Malzahar	Mage	Mid
##	Maokai	Tank	Jungle
##	Master Yi	Duelist	Jungle
##	Milio	Enchanter	Support
##	Miss Fortune	Marksman	ADC
##	Mordekaiser	Fighter	Тор
##	Morgana	Mage	Support
##	Nami	Enchanter	Support
##	Nasus	Fighter	Тор
##	Nautilus	Tank	-
##	Nautiius Neeko	Mage	Support Mid
##	Nidalee	Mage Specialist	Jungle
##	Nidalee	Duelist	ADC
##	Nocturne	Assassin	
##	MOCCULIIE	HESSESTIL	Jungle

##	Nunu & Willump	Tank	Jungle
##	Olaf	Fighter	Тор
##	Orianna	Mage	Mid
##	Ornn	Tank	Top
##	Pantheon	Fighter	Top
##	Рорру	Tank	Тор
##	Pyke	Assassin	Support
##	Qiyana	Assassin	Mid
##	Quinn	Specialist	Top
##	Rakan	Enchanter	Support
##	Rammus	Tank	Jungle
##	Rek'Sai	Fighter	Jungle
##	Rell	Tank	Support
##	Renata Glasc	Enchanter	Support
##	Renekton	Fighter	Top
##	Rengar	Assassin	Jungle
##	Riven	Duelist	Top
##	Rumble	Fighter	Top
##	Ryze	Mage	Mid
##	Samira	Marksman	х
##	Sejuani	Tank	Jungle
##	Senna	Marksman	Support
##	Seraphine	Enchanter	Support
##	Sett	Fighter	Тор
##	Shaco	Assassin	Jungle
##	Shen	Tank	Тор
##	Shyvana	Fighter	Jungle
##	Singed	Specialist	Тор
##	Sion	Tank	Тор
##	Sivir	Marksman	ADC
##	Skarner	Fighter	Jungle
##	Sona	Enchanter	Support
##	Soraka	Enchanter	Support
##	Swain	Mage	Mid
##	Sylas	Duelist	Mid
##	Syndra	Mage	Mid
##	Tahm Kench	Tank	Support
##	Taliyah	Mage	Mid
##	Talon	Assassin	Mid
##	Taric	Enchanter	Support
##	Teemo	Specialist	Тор
##	Thresh	Specialist	Support
##	Tristana	Marksman	ADC
##	Trundle	Fighter	Jungle
##	Tryndamere	Duelist	Top
##	Twisted Fate	Mage	Mid
##	Twitch	Marksman	ADC
##	Udyr	Fighter	Jungle
##	=	Fighter	
##	Urgot	Marksman	Top ADC
##	Varus		
##	Vayne	Marksman	ADC Mid
	Veigar	Mage	
##	Vel'Koz	Mage	Mid
##	Vex	Mage	Mid

```
##
    ۷i
                         Fighter
                                     Jungle
##
    Viego
                         Duelist
                                     Jungle
##
    Viktor
                             Mage
                                        Mid
##
    Vladimir
                             Mage
                                        Mid
##
    Volibear
                         Fighter
                                        Top
    Warwick
                         Fighter
##
                                     Jungle
##
    Wukong
                         Fighter
                                     Jungle
##
    Xayah
                        Marksman
                                        ADC
##
    Xerath
                             Mage
                                        Mid
##
    Xin Zhao
                         Fighter
                                     Jungle
    Yasuo
                         Duelist
                                        Mid
##
    Yone
                         Duelist
                                        Mid
##
    Yorick
                         Fighter
                                        Top
##
    Yuumi
                       Enchanter
                                   Support
##
    Zac
                             Tank
                                     Jungle
##
    Zed
                        Assassin
                                        Mid
##
                                        ADC
    Zeri
                        Marksman
##
    Ziggs
                                        Mid
                             Mage
##
    Zilean
                      Specialist
                                   Support
##
    Zoe
                             Mage
                                        Mid
##
    Zyra
                            Mage
                                   Support
```

data\$X.AS=parse_number(data\$X.AS)
data1=data[,-c(2,4,6,8,10)]
print(data)

```
##
                    HP X.HP AD
                                  X.AD
                                           AS
                                              X.AS AR X.AR MR X.MR
                                                                     MS Range
##
    Aatrox
                    650
                         114 60 5.0000 0.651 2.500 38 4.45 32 2.05 345
                    590
                          96 53 3.0000 0.668 2.000 21 4.70 30 1.30 330
##
    Ahri
                                                                           550
##
    Akali
                    570
                         119
                             62 3.3000 0.625 3.200 23 4.70 37 2.05 345
                                                                           125
                         104 52 3.5000 0.638 4.000 26 4.20 30 1.30 330
##
    Akshan
                    630
                                                                           500
##
    Alistar
                    685
                         120 62 3.7500 0.625 2.125 47 4.70 32 2.05 330
                                                                           125
                          94 53 3.8000 0.736 2.180 30 4.00 32 2.05 335
##
    Amumu
                    685
                                                                           125
##
    Anivia
                    550
                          92 51 3.2000 0.625 1.680 21 4.90 30 1.30 325
                                                                           600
##
    Annie
                    560
                         102 50 2.6500 0.579 1.360 19 4.70 30 1.30 335
                                                                           625
                    580
                         102 55 3.0000 0.640 2.100 26 4.20 30 1.30 325
##
    Aphelios
                                                                           550
                         101 59 2.9500 0.658 3.330 26 4.60 30 1.30 325
##
    Ashe
                    640
                                                                           600
                          95 55 3.2000 0.625 1.500 22 4.30 30 1.30 325
##
    Aurelion Sol
                    620
                                                                           550
##
    Azir
                    550
                         119 52 3.5000 0.625 6.000 22 5.00 30 1.30 335
                                                                           525
                         103 52 3.0000 0.625 2.000 34 5.20 30 1.30 330
##
    Bard
                    630
                                                                           500
    Bel'Veth
                    610
##
                          99 60 1.7000 0.850 0.000 32 4.70 32 2.05 340
                                                                           175
##
    Blitzcrank
                    633
                         109 62 3.5000 0.650 1.130 40 4.70 28 2.05 325
                                                                           125
##
    Brand
                         102 57 3.0000 0.625 1.360 22 4.70 30 1.30 340
                    590
                                                                           550
##
    Braum
                    640
                         112 55 3.2000 0.644 3.500 47 5.20 32 2.05 335
                                                                           125
##
    Caitlyn
                    580
                         107 60 3.8000 0.681 4.000 27 4.70 30 1.30 325
                                                                           650
##
                    646
                          99 68 3.5000 0.644 2.500 35 5.00 32 2.05 340
                                                                           125
    Camille
##
    Cassiopeia
                    630
                         104 53 3.0000 0.647 1.500 18 4.70 32 1.30 328
                                                                           550
##
    Cho'Gath
                             69 4.2000 0.625 1.440 38 5.00 32 2.05 345
                                                                           125
                    644
##
    Corki
                    588
                         105 55 2.8000 0.638 2.300 28 4.70 30 1.30 325
                                                                           550
##
    Darius
                    652
                         114
                             64 5.0000 0.625 1.000 39 5.20 32 2.05 340
                                                                           175
##
    Diana
                    640
                         109 57 3.0000 0.625 2.250 31 4.30 32 2.05 345
                                                                           150
##
    Dr. Mundo
                         103 61 2.5000 0.670 3.300 32 3.70 29 2.30 345
                                                                           125
                    613
##
                    675
                             62 3.6000 0.679 2.700 29 4.50 30 1.30 330
                                                                           550
    Draven
                         104
##
                    655
                          99 58 3.0000 0.688 3.300 32 4.20 32 2.05 340
    Ekko
                                                                           125
##
    Elise
                    650
                         109 55 3.0000 0.625 1.750 30 5.20 30 1.30 330
                                                                           550
```

```
Evelvnn
                    642
                          98 61 3.0000 0.667 2.100 37 4.70 32 2.05 335
                                                                           125
##
                    600
                         102 60 2.5000 0.625 2.500 24 4.70 30 1.30 325
                                                                           550
    Ezreal
    Fiddlesticks
##
                    650
                         106 55 2.6500 0.625 2.110 34 4.70 30 1.30 335
                                                                           480
                          99 68 3.3000 0.690 3.200 33 4.70 32 2.05 345
##
                    620
                                                                           150
    Fiora
##
    Fizz
                    640
                         106 58 3.0000 0.658 3.100 22 4.60 32 2.05 335
                                                                           175
##
    Galio
                    632
                         126 59 3.5000 0.625 1.500 24 4.70 32 2.05 335
                                                                           150
                         114 64 3.7000 0.658 3.200 31 4.20 32 2.05 345
##
    Gangplank
                    600
                                                                           125
##
    Garen
                    690
                          98 66 4.5000 0.625 3.650 36 4.20 32 1.55 340
                                                                           175
##
    Gnar
                    540
                          79 57 3.0000 0.625 6.000 32 3.70 30 1.30 335
                                                                           400
                                                                           125
##
    Gragas
                    670
                         109 64 3.5000 0.675 2.050 38 4.80 32 2.05 330
##
    Graves
                    625
                         106 68 4.0000 0.475 2.600 33 4.60 32 2.05 340
                                                                           425
##
                    620
                         109 63 3.0000 0.690 2.250 39 5.20 32 2.05
                                                                           150
    Gwen
                                                                     340
##
    Hecarim
                    625
                          99 66 3.2000 0.670 2.500 32 5.45 32 2.05
                                                                     345
                                                                           175
##
                    558
    Heimerdinger
                         101 56 2.7000 0.625 1.360 19 4.20 30 1.30 340
                                                                           550
##
                         109 68 5.0000 0.625 2.500 35 5.00 32 2.05 350
                                                                           125
    Illaoi
                    656
##
    Irelia
                    590
                         124
                             65 4.0000 0.656 2.500 36 4.70 30 2.05
                                                                           200
##
                    655
                          99 50 3.0000 0.644 3.400 27 4.70 32 2.05 330
                                                                           475
    Ivern
##
    Janna
                    570
                          84 52 3.0000 0.625 3.000 28 5.00 30 1.30 325
                                                                           500
##
    Jarvan IV
                         104 64 3.4000 0.658 2.500 36 4.80 32 2.05 340
                    640
                                                                           175
##
    Jax
                    665
                         100 68 4.2500 0.638 3.400 36 4.20 32 2.05 350
                                                                           125
##
    Jayce
                    590
                         109 57 4.2500 0.658 3.000 22 5.00 30 1.30 335
                                                                           125
##
    Jhin
                         107 59 4.7000 0.625 3.000 24 4.70 30 1.30 330
                                                                           550
                    655
##
                         100 59 3.4000 0.625 1.360 26 4.70 30 1.30 325
                                                                           525
    Jinx
                    630
    K'Sante
                         114 64 3.5000 0.625 2.500 33 4.70 30 2.10 330
                                                                           175
##
                    610
                         102 59 2.0000 0.644 1.800 28 4.20 30 1.30 335
                                                                           525
##
    Kai'Sa
                    670
##
    Kalista
                    574
                         114 66 3.7500 0.694 4.500 24 5.20 30 1.30 330
                                                                           525
##
                    604
                         109 51 3.3000 0.625 2.300 28 5.00 30 1.30 335
                                                                           525
    Karma
                         110 46 3.2500 0.625 2.110 21 4.70 30 1.30 335
##
    Karthus
                    620
                                                                           450
##
                    646
                         119 59 3.9000 0.640 3.700 19 4.00 30 1.30 335
                                                                           150
    Kassadin
##
    Katarina
                    672
                         108 58 3.2000 0.658 2.740 28 4.70 32 2.05 335
                                                                           125
##
    Kayle
                    670
                          92 50 2.5000 0.625 1.500 26 4.20 22 1.30 335
                                                                           175
##
    Kayn
                    655
                         109 68 3.3000 0.669 2.700 38 4.50 32 2.05 340
                                                                           175
##
    Kennen
                    611
                          98 48 3.7500 0.625 3.400 29 4.95 30 1.30 335
                                                                           550
##
    Kha'Zix
                          99 63 3.1000 0.668 2.700 36 4.20 32 2.05 350
                                                                           125
                    643
##
    Kindred
                    610
                             65 2.5000 0.625 3.500 29 4.70 30 1.30
                                                                           500
##
                   810
                         144 65 3.5000 0.625 3.500 35 5.20 28 2.05 345
                                                                           125
    Kled & Skaarl
##
    Kog'Maw
                    635
                          99 61 3.1000 0.665 2.650 24 4.45 30 1.30 330
                                                                           500
##
    LeBlanc
                    598
                         111 55 3.5000 0.625 1.400 22 4.70 30 1.30 340
                                                                           525
##
    Lee Sin
                    645
                         105 66 3.7000 0.651 3.000 34 4.90 32 2.05 345
                                                                           125
##
                    646
                         101 60 3.0000 0.625 2.900 47 4.80 32 2.05 335
                                                                           125
    Leona
                         105 61 3.1000 0.625 2.700 22 5.20 32 1.55 330
##
    Lillia
                    605
                                                                           325
##
                    620
                         110 55 2.7000 0.656 1.360 22 4.90 30 1.30 325
                                                                           550
    Lissandra
                         100 60 2.9000 0.638 3.300 28 4.20 30 1.30 335
##
    Lucian
                    641
                                                                           500
##
    Lulu
                    595
                          88 47 2.6000 0.625 2.250 29 4.90 30 1.30 330
                                                                           550
                          99 54 3.3000 0.669 2.000 19 5.20 30 1.30 330
##
    Lux
                    560
                                                                           550
##
                    644
                         104 62 4.0000 0.736 3.400 37 4.95 28 2.05 335
                                                                           125
    Malphite
##
    Malzahar
                    580
                         101 55 3.0000 0.625 1.500 18 4.70 30 1.30 335
                                                                           500
##
                         109 64 3.3000 0.800 2.125 39 5.20 32 2.05 335
                                                                           125
    Maokai
                    635
##
    Master Yi
                    669
                         100 65 2.2000 0.679 2.000 33 4.20 32 2.05 355
                                                                           175
##
    Milio
                    560
                          88 48 3.2000 0.625 3.000 28 4.90 30 1.30 330
                                                                           525
##
                    640
                         103 52 2.4000 0.656 3.000 28 4.20 30 1.30 325
                                                                           550
    Miss Fortune
##
    Mordekaiser
                    645
                         104 61 4.0000 0.625 1.000 37 4.20 32 2.05 335
                                                                           175
##
    Morgana
                    630
                         104 56 3.5000 0.625 1.530 25 5.00 30 1.30 335
                                                                           450
                          88 51 3.1000 0.644 2.610 29 5.20 30 1.30 335
##
    Nami
                    560
                                                                           550
```

```
##
    Nasus
                    631
                         104 67 3.5000 0.638 3.480 34 4.70 32 2.05 350
                                                                           125
##
                    646
                         100 61 3.3000 0.706 1.000 39 4.95 32 2.05 325
                                                                           175
    Nautilus
                         104 48 2.5000 0.625 3.500 21 5.20 30 1.30 340
##
    Neeko
                    610
                                                                           550
                         109 58 3.5000 0.638 3.220 28 4.70 30 1.30 335
##
    Nidalee
                    610
                                                                           525
##
    Nilah
                    570
                         101 58 2.0000 0.697 3.000 27 4.20 32 2.05 340
                                                                           225
                    655
                         109 62 2.6000 0.721 2.700 38 4.70 32 1.55 345
                                                                           125
##
    Nocturne
                          90 61 3.0000 0.625 2.250 29 4.20 32 2.05 345
##
    Nunu & Willump 610
                                                                           125
                         119 68 4.7000 0.694 2.700 35 4.20 32 2.05 350
##
    Olaf
                    645
                                                                           125
##
    Orianna
                    600
                         105 40 2.6000 0.658 3.500 20 4.20 26 1.30 325
                                                                           525
##
                    660
                                                                           175
    Ornn
                         109 69 3.5000 0.625 2.000 33 5.20 32 2.05 335
    Pantheon
                    650
                         109 64 3.3000 0.658 2.950 40 4.95 28 2.05 345
                                                                           175
                                                                     345
##
                    610
                         104 64 4.0000 0.625 2.500 38 4.70 32 2.05
                                                                           125
    Poppy
##
    Pyke
                    670
                         104 62 2.0000 0.667 2.500 45 4.70 32 2.05 330
                                                                           150
                    590
                         124 66 3.1000 0.688 2.100 28 4.70 32 2.05 335
                                                                           150
##
    Qiyana
##
                    603
                          99 59 2.4000 0.668 3.100 28 4.70 30 1.30 335
                                                                           525
    Quinn
##
    Rakan
                    610
                          99 62 3.5000 0.635 3.000 32 5.10 32 2.05 335
                                                                           300
##
                    675
                          94 55 2.7500 0.656 2.215 40 5.50 32 2.05 335
                                                                           125
    Rammus
##
    Rek'Sai
                    640
                          99 61 3.0000 0.667 2.000 36 4.95 32 2.05 335
                                                                           175
##
                         104 55 3.0000 0.550 2.000 32 4.20 32 2.05 335
    Rell
                    610
                                                                           175
##
    Renata Glasc
                    545
                          94 49 3.0000 0.625 2.110 27 4.70 30 1.30 330
                                                                           550
##
    Renekton
                    660
                         111 69 4.1500 0.665 2.750 35 5.20 32 2.05 345
                                                                           125
##
                    620
                         104 68 3.0000 0.667 3.000 34 4.20 32 2.05 345
                                                                           125
    Rengar
##
    Riven
                    630
                         100 64 3.0000 0.625 3.500 33 4.40 32 2.05 340
                                                                           125
    Rumble
                    659
                          99 61 3.2000 0.644 1.850 36 4.70 28 1.55 345
                                                                           125
##
                    645
                         124 58 3.0000 0.625 2.110 22 4.20 32 1.30 340
                                                                           550
##
    Ryze
##
    Samira
                    600
                         108 57 3.3000 0.658 3.300 26 4.70 30 1.30 335
                                                                           500
##
    Sejuani
                    630
                         114 66 4.0000 0.688 3.500 34 5.45 32 2.05 340
                                                                           150
                    530
                          89 50 0.0000 0.625 4.000 28 4.70 30 1.30 330
##
    Senna
                                                                           600
##
    Seraphine
                    570
                         104 55 3.0000 0.669 1.000 19 4.20 30 1.30 325
                                                                           525
##
    Sett
                    670
                         114 60 4.0000 0.625 1.750 33 5.20 28 2.05 340
                                                                           125
##
    Shaco
                    630
                          99 63 3.0000 0.694 3.000 30 4.00 32 2.05 345
                                                                           125
##
    Shen
                    610
                          99 60 3.0000 0.751 3.000 34 4.20 32 2.05 340
                                                                           125
                                                                           125
##
    Shyvana
                    665
                         109 66 3.4000 0.658 2.500 38 4.55 32 2.05 350
                    650
                          99 63 3.4000 0.613 1.900 34 4.70 32 2.05 345
                                                                           125
##
    Singed
##
    Sion
                    655
                             68 4.0000 0.679 1.300 32 4.20 32 2.05
                                                                           175
##
    Sivir
                    600
                         104 58 2.8000 0.625 2.000 26 4.45 30 1.30 335
                                                                           500
##
    Skarner
                    650
                             65 4.5000 0.625 2.100 38 5.00 32 2.05 335
                                                                           125
##
    Sona
                    550
                          91 49 3.0000 0.644 2.300 26 4.20 30 1.30 325
                                                                           550
##
    Soraka
                    605
                          88 50 3.0000 0.625 2.140 32 5.00 30 1.30 325
                                                                           550
##
    Swain
                    595
                          99 58 2.7000 0.625 2.110 26 5.20 30 1.30 330
                                                                           525
                         129 61 3.0000 0.645 3.500 27 5.20 32 2.55 340
##
    Sylas
                    575
                                                                           175
##
    Syndra
                    563
                         104 54 2.9000 0.625 2.000 25 4.60 30 1.30 330
                                                                           550
                         103 56 3.2000 0.658 2.500 42 4.70 32 2.05 335
##
    Tahm Kench
                    640
                                                                           175
##
    Taliyah
                    550
                         104 58 3.3000 0.625 1.360 18 4.70 30 1.30 330
                                                                           525
                         109 68 3.1000 0.625 2.900 30 4.70 39 2.05 335
##
    Talon
                    658
                                                                           125
                          99 55 3.5000 0.625 2.000 40 4.60 28 2.05 340
##
    Taric
                    645
                                                                           150
##
    Teemo
                    598
                         104 54 3.0000 0.690 3.380 24 4.95 30 1.30 330
                                                                           500
##
                    600
                         120 56 2.2000 0.625 3.500 28 0.00 30 1.30 330
                                                                           450
    Thresh
##
    Tristana
                    670
                         102 59 3.7000 0.656 1.500 26 4.20 30 1.30 325
                                                                           525
##
    Trundle
                    686
                         110 68 3.0000 0.600 2.900 37 3.90 32 2.05
                                                                           175
##
                    696
                         115 72 4.0000 0.670 2.900 33 4.30 32 2.05 345
                                                                           125
    Tryndamere
##
    Twisted Fate
                    604
                         108 52 3.3000 0.651 3.220 21 4.35 30 1.30 330
                                                                           525
##
    Twitch
                    682
                         100 59 3.1000 0.679 3.380 27 4.20 30 1.30 330
                                                                           550
                          92 62 4.0000 0.650 3.000 31 4.70 32 2.05 350
##
    Udyr
                    664
                                                                           125
```

```
102 63 4.0000 0.625 3.750 36 5.45 32 2.05 330
    Urgot
                    655
                                                                             350
##
    Varus
                    600
                         105 62 3.4000 0.658 4.000 27 4.60 30 1.30 330
                                                                             575
##
    Vayne
                    550
                         103 60 2.3500 0.658 3.300 23 4.60 30 1.30 330
                                                                             550
                         108 52 2.7000 0.625 2.240 18 5.20 32 1.30 340
##
    Veigar
                    550
                                                                             550
##
    Vel'Koz
                    590
                         102 55 3.1416 0.625 1.360 22 4.70 30 1.30 340
                                                                             525
##
    Vex
                    590
                         104 54 2.7500 0.669 1.000 23 4.45 28 1.30 335
                                                                             550
##
    Vi
                             63 3.0000 0.644 2.000 30 4.70 32 2.05 340
                    655
                                                                             125
                         109 57 3.5000 0.658 2.500 34 5.20 32 2.05 345
##
    Viego
                    630
                                                                             200
##
    Viktor
                    600
                         104 53 3.0000 0.658 2.110 23 5.20 30 1.30 335
                                                                             525
##
                         110 55 3.0000 0.658 2.000 27 4.50 30 1.30 330
                                                                             450
    Vladimir
                    607
    Volibear
                    650
                         104 60 3.5000 0.625 2.000 31 5.20 32 2.05 340
                                                                             150
                             65 3.0000 0.638 2.300 33 4.40 32 2.05
##
    Warwick
                    620
                                                                      335
                                                                             125
                             66 3.5000 0.680 3.000 31 4.70 28 2.05
##
    Wukong
                    610
                                                                      340
                                                                             175
##
                    660
                         102 60 3.5000 0.658 3.900 25 4.20 30 1.30 330
                                                                             525
    Xayah
##
    Xerath
                    596
                         106 55 3.0000 0.625 1.360 22 4.70 30 1.30 340
                                                                             525
##
    Xin Zhao
                    640
                         106 63 3.0000 0.645 3.500 35 4.70 32 2.05
                                                                      345
                                                                             175
##
    Yasuo
                    590
                         101 60 3.0000 0.697 3.500 30 4.60 32 2.05 345
                                                                             175
##
    Yone
                    620
                          99 60 2.0000 0.625 3.500 28 4.60 32 2.05 345
                                                                             175
##
    Yorick
                    650
                         114 62 5.0000 0.625 2.000 39 5.20 32 2.05 340
                                                                             175
##
    Yuumi
                    500
                          69 49 3.1000 0.625 1.000 25 4.20 25 1.10
                                                                             425
##
    Zac
                    685
                         109 60 3.4000 0.736 1.600 33 4.70 32 2.05 340
                                                                             175
##
    Zed
                    654
                          99 63 3.4000 0.651 3.300 32 4.70 29 2.05 345
                                                                             125
                         110 53 1.3000 0.658 2.000 24 4.20 30 1.30 330
##
    Zeri
                    630
                                                                             500
    Ziggs
                    606
                         106 54 3.1000 0.656 2.000 22 4.50 30 1.30 325
                                                                             550
##
##
                    574
                          96 52 3.0000 0.625 2.130 24 5.00 30 1.30 335
                                                                             550
    Zilean
##
    Zoe
                    630
                         106 58 3.3000 0.625 2.500 21 4.70 30 1.30 340
                                                                             550
##
    Zyra
                    574
                          93 53 3.2000 0.625 2.110 29 4.20 30 1.30 340
                                                                             575
##
                          CLASS POSITION
##
    Aatrox
                        Fighter
                                      Top
##
    Ahri
                           Mage
                                      Mid
##
    Akali
                       Assassin
                                      Mid
##
    Akshan
                       Marksman
                                      Mid
##
    Alistar
                           Tank
                                 Support
##
                                 Support
    Amumu
                           Tank
##
    Anivia
                           Mage
                                      Mid
##
    Annie
                                      Mid
                           Mage
##
    Aphelios
                       Marksman
                                      ADC
##
    Ashe
                       Marksman
                                      ADC
##
    Aurelion Sol
                           Mage
                                      Mid
##
    Azir
                     Specialist
                                      Mid
##
    Bard
                           Mage
                                  Support
##
    Bel'Veth
                        Duelist
                                   Jungle
##
    Blitzcrank
                           Tank
                                 Support
##
    Brand
                           Mage
                                  Support
##
    Braum
                           Tank
                                  Support
##
    Caitlyn
                       Marksman
                                      ADC
##
    Camille
                        Fighter
                                      Top
##
                                      Mid
    Cassiopeia
                           Mage
                     Specialist
##
    Cho'Gath
                                      Top
##
    Corki
                       Marksman
                                      Mid
##
    Darius
                        Fighter
                                      Top
##
    Diana
                       Assassin
                                   Jungle
##
    Dr. Mundo
                        Fighter
                                      Top
##
    Draven
                       Marksman
                                      ADC
```

##	Ekko	Assassin	Mid
##	Elise	Assassin	Jungle
##	Evelynn	Assassin	Support
##	Ezreal	Marksman	ADC
##	Fiddlesticks	Specialist	Jungle
##	Fiora	Duelist	Top
##	Fizz	Assassin	Mid
##	Galio	Tank	Mid
##	Gangplank	Specialist	Top
##	Garen	Fighter	Top
##	Gnar	Specialist	Top
##	Gragas	Tank	Top
##	Graves	Specialist	Jungle
##	Gwen	Duelist	Top
##	Hecarim	Fighter	Jungle
##	Heimerdinger	Specialist	Support
##	Illaoi	Fighter	Top
##	Irelia	Fighter	Top
##	Ivern	Mage	Jungle
##	Janna	Enchanter	Support
##	Jarvan IV	Fighter	Jungle
##	Jax	Duelist	Top
##	Jayce	Mage	Mid
##	Jhin	Marksman	ADC
##	Jinx	Marksman	ADC
##	K'Sante	Fighter	Top
##	Kai'Sa	Marksman	ADC
##	Kalista	Marksman	ADC
##	Karma	Enchanter	Support
##	Karthus	Mage	Jungle
##	Kassadin	Assassin	Mid
##	Katarina	Assassin	Mid
##	Kayle	Specialist	Тор
##	Kayn	Assassin	Jungle
##	Kennen	Specialist	Тор
##	Kha'Zix	Assassin	Jungle
##	Kindred	Marksman	Jungle
##	Kled & Skaarl	Duelist	Тор
##	Kog'Maw	Marksman	ADC
##	LeBlanc	Mage	Mid
##	Lee Sin	Fighter	Jungle
##	Leona	Tank	Support
##	Lillia	Fighter	Jungle
##	Lissandra	Mage	Mid
##	Lucian	Marksman	ADC
##	Lulu	Enchanter	Support
##	Lux	Mage	Support
##	Malphite	Tank	Тор
##	Malzahar	Mage	Mid
##	Maokai	Tank	Jungle
##	Master Yi	Duelist	Jungle
##	Milio	Enchanter	Support
##	Miss Fortune	Marksman	ADC
##	Mordekaiser	Fighter	Тор
##	HOTOGRATAGE	LISHOEL	тор

##	Morgana	Mage	Support
##	Nami	Enchanter	Support
##	Nasus	Fighter	Top
##	Nautilus	Tank	Support
##	Neeko	Mage	Mid
##	Nidalee	Specialist	Jungle
##	Nilah	Duelist	ADC
##	Nocturne	Assassin	Jungle
##	Nunu & Willump	Tank	Jungle
##	Olaf	Fighter	Top
##	Orianna	Mage	Mid
##	Ornn	Tank	Top
##	Pantheon	Fighter	Top
##	Рорру	Tank	Top
##	Pyke	Assassin	Support
##	Qiyana	Assassin	Mid
##	Quinn	Specialist	Top
##	Rakan	Enchanter	Support
##	Rammus	Tank	Jungle
##	Rek'Sai	Fighter	Jungle
##	Rell	Tank	Support
##	Renata Glasc	Enchanter	Support
##	Renekton	Fighter	Top
##	Rengar	Assassin	Jungle
##	Riven	Duelist	Top
##	Rumble	Fighter	Top
##	Ryze	Mage	Mid
##	Samira	Marksman	X
##	Sejuani	Tank	Jungle
##	Senna	Marksman	Support
##	Seraphine	Enchanter	Support
##	Sett	Fighter	Top
##	Shaco	Assassin	Jungle
##	Shen	Tank	Top
##	Shyvana	Fighter	Jungle
##	Singed	Specialist	Top
##	Sion	Tank	Top
##	Sivir	Marksman	ADC
##	Skarner	Fighter	Jungle
##	Sona	Enchanter	Support
##	Soraka	Enchanter	Support
##	Swain	Mage	Mid
##	Sylas	Duelist	Mid
##	Syndra	Mage	Mid
##	Tahm Kench	Tank	Support
##	Taliyah	Mage	Mid
##	Talon	Assassin	Mid
##	Taric	Enchanter	Support
##	Teemo	Specialist	Top
##	Thresh	Specialist	Support
##	Tristana	Marksman	ADC
##	Trundle	Fighter	Jungle
##	Tryndamere	Duelist	Top
##	Twisted Fate	Mage	Mid

##	Twitch	Marksman	ADC
##	Udyr	Fighter	Jungle
##	Urgot	Fighter	Top
##	Varus	Marksman	ADC
##	Vayne	Marksman	ADC
##	Veigar	Mage	Mid
##	Vel'Koz	Mage	Mid
##	Vex	Mage	Mid
##	Vi	Fighter	Jungle
##	Viego	Duelist	Jungle
##	Viktor	Mage	Mid
##	Vladimir	Mage	Mid
##	Volibear	Fighter	Top
##	Warwick	Fighter	Jungle
##	Wukong	Fighter	Jungle
##	Xayah	Marksman	ADC
##	Xerath	Mage	Mid
##	Xin Zhao	Fighter	Jungle
##	Yasuo	Duelist	Mid
##	Yone	Duelist	Mid
##	Yorick	Fighter	Top
##	Yuumi	Enchanter	Support
##	Zac	Tank	Jungle
##	Zed	Assassin	Mid
##	Zeri	Marksman	ADC
##	Ziggs	Mage	Mid
##	Zilean	Specialist	Support
##	Zoe	Mage	Mid
##	Zyra	Mage	Support

print(data1)

##		HP	AD	AS	AR	MR	MS	Range	CLASS	POSITION
##	Aatrox	650	60	0.651	38	32	345	175	Fighter	Top
##	Ahri	590	53	0.668	21	30	330	550	Mage	Mid
##	Akali	570	62	0.625	23	37	345	125	Assassin	Mid
##	Akshan	630	52	0.638	26	30	330	500	Marksman	Mid
##	Alistar	685	62	0.625	47	32	330	125	Tank	Support
##	Amumu	685	53	0.736	30	32	335	125	Tank	Support
##	Anivia	550	51	0.625	21	30	325	600	Mage	Mid
##	Annie	560	50	0.579	19	30	335	625	Mage	Mid
##	Aphelios	580	55	0.640	26	30	325	550	Marksman	ADC
##	Ashe	640	59	0.658	26	30	325	600	Marksman	ADC
##	Aurelion Sol	620	55	0.625	22	30	325	550	Mage	Mid
##	Azir	550	52	0.625	22	30	335	525	Specialist	Mid
##	Bard	630	52	0.625	34	30	330	500	Mage	Support
##	Bel'Veth	610	60	0.850	32	32	340	175	Duelist	Jungle
##	Blitzcrank	633	62	0.650	40	28	325	125	Tank	Support
##	Brand	590	57	0.625	22	30	340	550	Mage	Support
##	Braum	640	55	0.644	47	32	335	125	Tank	Support
##	Caitlyn	580	60	0.681	27	30	325	650	Marksman	ADC
##	Camille	646	68	0.644	35	32	340	125	Fighter	Top
##	Cassiopeia	630	53	0.647	18	32	328	550	Mage	Mid
##	Cho'Gath	644	69	0.625	38	32	345	125	Specialist	Top
##	Corki	588	55	0.638	28	30	325	550	Marksman	Mid

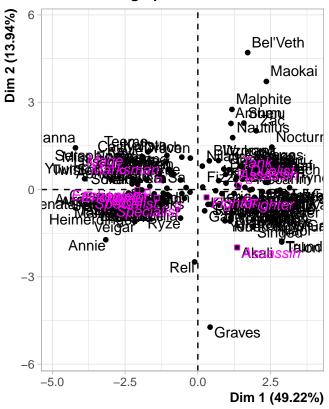
##	Darius	652	64	0.625	30	30	3/10	175	Fighter	Top
##	Diana			0.625				150	Assassin	Jungle
##	Dr. Mundo			0.670				125	Fighter	Top
##	Draven	675		0.679				550	Marksman	ADC
##	Ekko	655		0.688				125	Assassin	Mid
##	Elise			0.625				550	Assassin	Jungle
##	Evelynn			0.667			335	125	Assassin	Support
##	Ezreal			0.625				550	Marksman	ADC
##	Fiddlesticks			0.625				480		
##	Fiora			0.625				150	Specialist Duelist	Jungle
##	Fizz			0.658				175	Assassin	Top Mid
##	Galio			0.625				150	Tank	Mid
##				0.658				125		
	Gangplank								Specialist	Top
##	Garen			0.625				175	Fighter	Тор
##	Gnar			0.625				400	Specialist	Тор
##	Gragas			0.675				125	Tank	Top
##	Graves	625		0.475			340	425	Specialist	Jungle
##	Gwen			0.690				150	Duelist	Top
##	Hecarim	625		0.670				175	Fighter	Jungle
##	Heimerdinger	558		0.625				550	Specialist	Support
##	Illaoi	656		0.625				125	Fighter	Тор
##	Irelia -	590		0.656				200	Fighter	Тор
##	Ivern	655		0.644				475	Mage	Jungle
##	Janna			0.625				500	Enchanter	Support
##	Jarvan IV			0.658				175	Fighter	Jungle
##	Jax	665		0.638				125	Duelist	Тор
##	Jayce			0.658				125	Mage	Mid
##	Jhin			0.625				550	Marksman	ADC
##	Jinx			0.625			325	525	Marksman	ADC
##	K'Sante	610	64	0.625	33	30	330	175	Fighter	Top
##	Kai'Sa	670	59	0.644	28	30	335	525	Marksman	ADC
##	Kalista	574	66	0.694	24	30	330	525	Marksman	ADC
##	Karma	604	51	0.625	28	30	335	525	Enchanter	Support
##	Karthus	620	46	0.625	21	30	335	450	Mage	Jungle
##	Kassadin	646	59	0.640	19	30	335	150	Assassin	Mid
##	Katarina	672	58	0.658	28	32	335	125	Assassin	Mid
##	Kayle	670	50	0.625	26	22	335	175	Specialist	Top
##	Kayn	655	68	0.669	38	32	340	175	Assassin	Jungle
##	Kennen	611	48	0.625	29	30	335	550	Specialist	Top
##	Kha'Zix	643	63	0.668	36	32	350	125	Assassin	Jungle
##	Kindred	610	65	0.625	29	30	325	500	Marksman	Jungle
##	Kled & Skaarl	810	65	0.625	35	28	345	125	Duelist	Top
##	Kog'Maw	635	61	0.665	24	30	330	500	Marksman	ADC
##	LeBlanc	598	55	0.625	22	30	340	525	Mage	Mid
##	Lee Sin	645	66	0.651	34	32	345	125	Fighter	Jungle
##	Leona	646	60	0.625	47	32	335	125	Tank	Support
##	Lillia	605	61	0.625	22	32	330	325	Fighter	Jungle
##	Lissandra	620	55	0.656	22	30	325	550	Mage	Mid
##	Lucian	641	60	0.638	28	30	335	500	Marksman	ADC
##	Lulu			0.625				550	Enchanter	Support
##	Lux			0.669				550	Mage	Support
##	Malphite			0.736				125	Tank	Тор
##	Malzahar			0.625				500	Mage	Mid
##	Maokai			0.800				125	Tank	Jungle
		550	J 1		55	J_	200	120	I diik	2 411-510

##	Master Yi	669	65	0.679	33	32	355	175	Duelist	Jungle
##	Milio	560		0.625				525	Enchanter	Support
##	Miss Fortune	640		0.656			325	550	Marksman	ADC
##	Mordekaiser	645		0.625			335	175	Fighter	Тор
##	Morgana	630		0.625			335	450	Mage	Support
##	Nami	560		0.644		30	335	550	Enchanter	Support
##	Nasus			0.638				125	Fighter	Тор
##	Nautilus			0.706				175	Tank	Support
##	Neeko	610	48	0.625	21	30	340	550	Mage	Mid
##	Nidalee	610	58	0.638	28	30	335	525	Specialist	Jungle
##	Nilah	570	58	0.697	27	32	340	225	Duelist	ADC
##	Nocturne	655	62	0.721	38	32	345	125	Assassin	Jungle
##	Nunu & Willump	610	61	0.625	29	32	345	125	Tank	Jungle
##	Olaf	645	68	0.694	35	32	350	125	Fighter	Top
##	Orianna	600	40	0.658	20	26	325	525	Mage	Mid
##	Ornn	660	69	0.625	33	32	335	175	Tank	Top
##	Pantheon	650	64	0.658	40	28	345	175	Fighter	Top
##	Poppy	610	64	0.625	38	32	345	125	Tank	Top
##	Pyke	670	62	0.667	45	32	330	150	Assassin	Support
##	Qiyana	590	66	0.688	28	32	335	150	Assassin	Mid
##	Quinn	603	59	0.668	28	30	335	525	Specialist	Top
##	Rakan	610	62	0.635	32	32	335	300	Enchanter	Support
##	Rammus	675		0.656				125	Tank	Jungle
##	Rek'Sai			0.667				175	Fighter	Jungle
##	Rell			0.550				175	Tank	Support
##	Renata Glasc	545		0.625				550	Enchanter	Support
##	Renekton	660		0.665				125	Fighter	Тор
##	Rengar	620		0.667				125	Assassin	Jungle
##	Riven	630		0.625				125	Duelist	Тор
##	Rumble	659		0.644				125	Fighter	Top
##	Ryze	645		0.625				550	Mage	Mid
##	Samira			0.658				500	Marksman	X
## ##	Sejuani	630		0.625			330	150 600	Tank	Jungle
##	Senna			0.669			325	525	Marksman Enchanter	Support
##	Seraphine Sett	670		0.625			340	125	Fighter	Support Top
##	Shaco			0.694				125	Assassin	Jungle
##	Shen			0.751				125	Tank	Top
##	Shyvana			0.658				125	Fighter	Jungle
##	Singed			0.613				125	Specialist	Тор
##	Sion			0.679				175	Tank	Тор
##	Sivir			0.625				500	Marksman	ADC
##	Skarner			0.625				125	Fighter	Jungle
##	Sona	550	49	0.644	26	30	325	550	Enchanter	Support
##	Soraka			0.625				550	Enchanter	Support
##	Swain	595	58	0.625	26	30	330	525	Mage	Mid
##	Sylas	575	61	0.645	27	32	340	175	Duelist	Mid
##	Syndra	563	54	0.625	25	30	330	550	Mage	Mid
##	Tahm Kench	640	56	0.658	42	32	335	175	Tank	Support
##	Taliyah	550	58	0.625	18	30	330	525	Mage	Mid
##	Talon	658	68	0.625	30	39	335	125	Assassin	Mid
##	Taric			0.625				150	Enchanter	Support
##	Teemo			0.690				500	Specialist	Top
##	Thresh	600	56	0.625	28	30	330	450	Specialist	Support

```
670 59 0.656 26 30 325
                                                                     ADC
##
    Tristana
                                              525
                                                      Marksman
##
    Trundle
                    686 68 0.600 37 32 350
                                              175
                                                       Fighter
                                                                 Jungle
    Tryndamere
##
                    696 72 0.670 33 32 345
                                              125
                                                       Duelist
                                                                     Top
    Twisted Fate
                                              525
                                                                     Mid
##
                    604 52 0.651 21 30 330
                                                          Mage
##
    Twitch
                    682 59 0.679 27 30 330
                                              550
                                                      Marksman
                                                                     ADC
##
    Udyr
                    664 62 0.650 31 32 350
                                              125
                                                       Fighter
                                                                 Jungle
##
    Urgot
                    655 63 0.625 36 32 330
                                              350
                                                       Fighter
                                                                     Top
    Varus
                    600 62 0.658 27 30 330
                                              575
                                                      Marksman
                                                                     ADC
##
##
    Vayne
                    550 60 0.658 23 30 330
                                              550
                                                      Marksman
                                                                     ADC
##
                    550 52 0.625 18 32 340
                                              550
                                                                     Mid
    Veigar
                                                          Mage
    Vel'Koz
                    590 55 0.625 22 30 340
                                              525
                                                          Mage
                                                                     Mid
                    590 54 0.669 23 28 335
                                                                     Mid
##
    Vex
                                              550
                                                          Mage
                    655 63 0.644 30 32 340
##
    Vi
                                              125
                                                       Fighter
                                                                 Jungle
                                                       Duelist
##
    Viego
                    630 57 0.658 34 32 345
                                              200
                                                                 Jungle
##
    Viktor
                    600 53 0.658 23 30 335
                                              525
                                                                    Mid
                                                          Mage
##
    Vladimir
                    607 55 0.658 27 30 330
                                              450
                                                          Mage
                                                                     Mid
##
    Volibear
                    650 60 0.625 31 32 340
                                              150
                                                                     Top
                                                       Fighter
                    620 65 0.638 33 32 335
##
    Warwick
                                              125
                                                       Fighter
                                                                 Jungle
##
    Wukong
                    610 66 0.680 31 28 340
                                              175
                                                       Fighter
                                                                 Jungle
##
    Xayah
                    660 60 0.658 25 30 330
                                              525
                                                      Marksman
                                                                     ADC
##
    Xerath
                    596 55 0.625 22 30 340
                                              525
                                                          Mage
                                                                    Mid
##
    Xin Zhao
                    640 63 0.645 35 32 345
                                              175
                                                       Fighter
                                                                 Jungle
    Yasuo
                                                       Duelist
                                                                    Mid
##
                    590 60 0.697 30 32 345
                                              175
##
    Yone
                    620 60 0.625 28 32 345
                                              175
                                                       Duelist
                                                                     Mid
##
    Yorick
                    650 62 0.625 39 32 340
                                                       Fighter
                                                                     Top
                                              175
   Yuumi
                    500 49 0.625 25 25 330
                                              425
                                                     Enchanter
                                                                Support
##
    Zac
                    685 60 0.736 33 32 340
                                              175
                                                          Tank
                                                                 Jungle
##
    Zed
                    654 63 0.651 32 29 345
                                              125
                                                                     Mid
                                                      Assassin
##
    Zeri
                    630 53 0.658 24 30 330
                                              500
                                                                     ADC
                                                      Marksman
                    606 54 0.656 22 30 325
                                              550
##
    Ziggs
                                                          Mage
                                                                     Mid
##
    Zilean
                    574 52 0.625 24 30 335
                                              550
                                                    Specialist
                                                                Support
##
    Zoe
                    630 58 0.625 21 30 340
                                              550
                                                          Mage
                                                                     Mid
                    574 53 0.625 29 30 340
                                              575
##
    Zyra
                                                          Mage
                                                                Support
data2=data1[,-c(9)]
library(FactoMineR)
res=PCA(data2,quali.sup=c(8),graph=F)
```

plot(res,choix="ind")

PCA graph of individuals



data3=data1[,-c(8)]
res=PCA(data3,quali.sup=c(8))

