Homework 1

CSCE 587

Fall 2016

Due: 09/13/2016 via Dropbox

Name: Sendurr Selvaraj

VIP ID: 00323540

1. (a) Histogram of players and their salaries.



1. (b) Players with minimum salary.

> low\_salary = min(x)

> data\_low\_salary=data[data$Salary<=low\_salary\*1000000,]

> title=paste("There are",nrow(data\_low\_salary),"players who have minimum salary of ",low\_salary,"million.")

> title

[1] "There are 44 players who have minimum salary of 0.3 million."

> data\_low\_salary

Team Player Salary Position

2 New York Yankees Anderson, Jason 300000 Pitcher

45 Anaheim Angels Ramirez, Julio 300000 Outfielder

63 Boston Red Sox Gonzalez, Dicky 300000 Pitcher

76 Boston Red Sox Person, Robert 300000 Pitcher

82 Boston Red Sox White, Matt 300000 Pitcher

109 Cleveland Indians Traber, Billy 300000 Pitcher

128 Toronto Blue Jays Lopez, Aquilino 300000 Pitcher

138 Toronto Blue Jays Werth, Jayson 300000 Catcher

143 Baltimore Orioles Bedard, Erik 300000 Pitcher

164 Baltimore Orioles Morban, Jose 300000 Shortstop

170 Tampa Bay Devil Rays Abernathy, Brent 300000 Second Baseman

172 Tampa Bay Devil Rays Baldelli, Rocco 300000 Outfielder

173 Tampa Bay Devil Rays Bierbrodt, Nick 300000 Pitcher

174 Tampa Bay Devil Rays Carter, Lance 300000 Pitcher

175 Tampa Bay Devil Rays Colome, Jesus 300000 Pitcher

176 Tampa Bay Devil Rays Crawford, Carl 300000 Outfielder

178 Tampa Bay Devil Rays Hall, Toby 300000 Catcher

181 Tampa Bay Devil Rays Kennedy, Joe 300000 Pitcher

183 Tampa Bay Devil Rays Martin, Al 300000 Outfielder

184 Tampa Bay Devil Rays McClung, Seth 300000 Pitcher

188 Tampa Bay Devil Rays Rolls, Damian 300000 Third Baseman

189 Tampa Bay Devil Rays Seay, Bobby 300000 Pitcher

190 Tampa Bay Devil Rays Shumpert, Terry 300000 Second Baseman

191 Tampa Bay Devil Rays Sosa, Jorge 300000 Pitcher

192 Tampa Bay Devil Rays Valentin, Javier 300000 Catcher

193 Tampa Bay Devil Rays Venafro, Mike 300000 Pitcher

194 Tampa Bay Devil Rays Zambrano, Victor 300000 Pitcher

202 Kansas City Royals Carrasco, DJ 300000 Pitcher

207 Kansas City Royals Harvey, Ken 300000 First Baseman

210 Kansas City Royals Johnson, Rontrez 300000 Outfielder

212 Kansas City Royals Lopez, Mendy 300000 Shortstop

262 Chicago White Sox Olivo, Miguel 300000 Catcher

267 Chicago White Sox Stewart, Josh 300000 Pitcher

276 Detroit Tigers Bonderman, Jeremy 300000 Pitcher

278 Detroit Tigers German, Franklyn 300000 Pitcher

281 Detroit Tigers Infante, Omar 300000 Shortstop

285 Detroit Tigers Ledezma, Wilfredo 300000 Pitcher

292 Detroit Tigers Roney, Matt 300000 Pitcher

299 Seattle Mariners Bloomquist, Willie 300000 Second Baseman

322 Seattle Mariners Snelling, Chris 300000 Outfielder

328 Oakland Athletics Byrnes, Eric 300000 Outfielder

346 Oakland Athletics Neu, Mike 300000 Pitcher

353 Texas Rangers Clark, Jermaine 300000 Second Baseman

358 Texas Rangers Garcia, Reynaldo 300000 Pitcher

abline ( v=low\_salary , col ="red ", lwd =3)



1. (c) Players who are millionaires.

> data\_million=data[data$Salary>=1000000,]

> title=paste("There are",nrow(data\_million),"players who are millionaires.")

> title

[1] "There are 176 players who are millionaires."



1. (d) Players whose salary is greater that 10 million.

data\_high\_salary=data[data$Salary>=10000000,]

> title=paste("There are",nrow(data\_high\_salary),"players who earn more than 10 million.")

> title

[1] "There are 20 players who earn more than 10 million."

> data\_high\_salary

Team Player Salary Position

3 New York Yankees Clemens, Roger 10100000 Pitcher

6 New York Yankees Giambi, Jason 11428571 First Baseman

9 New York Yankees Jeter, Derek 15600000 Shortstop

15 New York Yankees Mondesi, Raul 13000000 Outfielder

16 New York Yankees Mussina, Mike 12000000 Pitcher

18 New York Yankees Pettitte, Andy 11500000 Pitcher

20 New York Yankees Rivera, Mariano 10500000 Pitcher

26 New York Yankees Williams, Bernie 12357143 Outfielder

30 Anaheim Angels Appier, Kevin 11500000 Pitcher

61 Boston Red Sox Garciaparra, Nomar 11000000 Shortstop

69 Boston Red Sox Martinez, Pedro 15500000 Pitcher

77 Boston Red Sox Ramirez, Manny 20000000 Outfielder

118 Toronto Blue Jays Delgado, Carlos 18700000 First Baseman

144 Baltimore Orioles Belle, Albert 13000000 Outfielder

218 Kansas City Royals Sweeney, Mike 11000000 First Baseman

280 Detroit Tigers Higginson, Bobby 11850000 Outfielder

331 Oakland Athletics Dye, Jermaine 11666667 Outfielder

360 Texas Rangers Gonzalez, Juan 13000000 Outfielder

369 Texas Rangers Park, Chan Ho 13000000 Pitcher

1. Texas Rangers Rodriguez, Alex 22000000 Shortstop



3.(e.5) Histogram of salaries of New York Yankees and Oakland Athletics





4.(e.1) The total team salary of New York Yankees and Oakland Athletics

> yankees\_salary =sum(yankees$Salary)

> output=paste("The total salary of team yankees is ",yankees\_salary)

> output

[1] "The total salary of team yankees is 152749814"

> oakland\_salary =sum(oakland$Salary)

> output=paste("The total salary of team oakland is ",oakland\_salary)

> output

[1] "The total salary of team oakland is 50260834"

4.(e.2) The largest salary of New York Yankees and Oakland Athletics

> yankees\_high\_salary =yankees[which.max(yankees$Salary),]

> output=paste("The highest salary of team yankees is ")

> output

[1] "The highest salary of team yankees is "

> yankees\_high\_salary

Team Player Salary Position

9 New York Yankees Jeter, Derek 15600000 Shortstop

> oakland\_high\_salary =oakland[which.max(oakland$Salary),]

> output=paste("The highest salary of team oakland is ")

> output

[1] "The highest salary of team oakland is "

> oakland\_high\_salary

Team Player Salary Position

331 Oakland Athletics Dye, Jermaine 11666667 Outfielder

4.(e.3) The average salaries of New York Yankees and Oakland Athletics

> yankees\_avg\_salary =mean(yankees$Salary)

> output=paste("The highest salary of team yankees is ",yankees\_avg\_salary)

> output

[1] "The highest salary of team yankees is 5455350.5"

> oakland\_avg\_salary =mean(oakland$Salary)

> output=paste("The highest salary of team oakland is ",oakland\_avg\_salary)

> output

[1] "The highest salary of team oakland is 1933109"

4.(e.4) The no of millionaires in New York Yankees and Oakland Athletics

> yankees\_million\_salary =yankees[yankees$Salary>=1000000,]

> output=paste("There are ",nrow(yankees\_million\_salary)," millionaires in yankees.")

> output

[1] "There are 20 millionaires in yankees."

> yankees\_million\_salary

Team Player Salary Position

3 New York Yankees Clemens, Roger 10100000 Pitcher

4 New York Yankees Contreras, Jose 5500000 Pitcher

6 New York Yankees Giambi, Jason 11428571 First Baseman

7 New York Yankees Hammond, Chris 2200000 Pitcher

8 New York Yankees Hitchcock, Sterling 6000000 Pitcher

9 New York Yankees Jeter, Derek 15600000 Shortstop

11 New York Yankees Karsay, Steve 5000000 Pitcher

14 New York Yankees Matsui, Hideki 6000000 Outfielder

15 New York Yankees Mondesi, Raul 13000000 Outfielder

16 New York Yankees Mussina, Mike 12000000 Pitcher

17 New York Yankees Osuna, Antonio 2400000 Pitcher

18 New York Yankees Pettitte, Andy 11500000 Pitcher

19 New York Yankees Posada, Jorge 8000000 Catcher

20 New York Yankees Rivera, Mariano 10500000 Pitcher

22 New York Yankees Trammell, Bubba 2500000 Outfielder

23 New York Yankees Ventura, Robin 5000000 Third Baseman

24 New York Yankees Weaver, Jeff 4150000 Pitcher

25 New York Yankees Wells, David 3250000 Pitcher

26 New York Yankees Williams, Bernie 12357143 Outfielder

28 New York Yankees Zeile, Todd 1500000 Third Baseman

> oakland\_million\_salary =oakland[oakland$Salary>=1000000,]

> output=paste("There are ",nrow(oakland\_million\_salary)," millionaires in oakland")

> output

[1] "There are 14 millionaires in oakland"

> oakland\_million\_salary

Team Player Salary Position

329 Oakland Athletics Chavez, Eric 3675000 Third Baseman

330 Oakland Athletics Durazo, Erubiel 1065000 First Baseman

331 Oakland Athletics Dye, Jermaine 11666667 Outfielder

334 Oakland Athletics Foulke, Keith 6000000 Pitcher

337 Oakland Athletics Hatteberg, Scott 1750000 Catcher

338 Oakland Athletics Hernandez, Ramon 1887500 Catcher

339 Oakland Athletics Hudson, Tim 2700000 Pitcher

342 Oakland Athletics Long, Terrence 2175000 Outfielder

343 Oakland Athletics Mecir, Jim 3216667 Pitcher

345 Oakland Athletics Mulder, Mark 2650000 Pitcher

348 Oakland Athletics Rincon, Ricardo 1700000 Pitcher

349 Oakland Athletics Singleton, Chris 1200000 Outfielder

350 Oakland Athletics Tejada, Miguel 5125000 Shortstop

351 Oakland Athletics Zito, Barry 1000000 Pitcher