

5240 Workshop Exercise 02

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Loading the Football and Weights of teams dataset

```
football_data <- read.csv(file= "ws02-exercise-football.csv", header=TRUE)
weight_of_teams <- read.csv(file = "football_weights.csv", header=TRUE)

str(football_data)
```

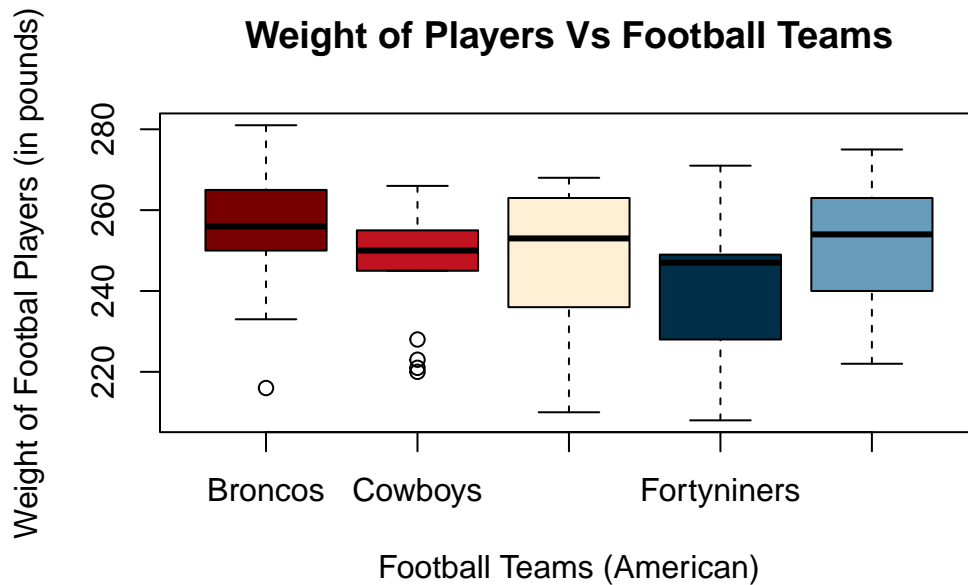
```
'data.frame':  85 obs. of  2 variables:
 $ team  : chr  "dallas" "dallas" "dallas" "dallas" ...
 $ weight: int   250 255 255 264 250 265 245 252 266 246 ...
```

```
str(weight_of_teams)
```

```
'data.frame':  17 obs. of  5 variables:
 $ cowboys   : int   250 255 255 264 250 265 245 252 266 246 ...
 $ packers   : int   260 271 258 263 267 254 255 250 248 240 ...
 $ broncos   : int   270 250 281 273 257 264 233 254 268 252 ...
 $ dolphins  : int   260 255 265 257 268 263 247 253 251 252 ...
 $ fortyniners: int   247 249 255 247 244 245 249 260 217 208 ...
```

Visualization's

```
boxplot(x=list(weight_of_teams$broncos,weight_of_teams$cowboys,weight_of_teams$dolphins,weight_of_teams$fortyniners,weight_of_teams$packers),
        xlab = "Football Teams (American)",
        ylab = "Weight of Football Players (in pounds)",
        names = c("Broncos","Cowboys","Dolphins","Fortyniners","Packers"),
        col = c("#780000","#c1121f","#fdf0d5","#003049","#669bbc"),
        main = "Weight of Players Vs Football Teams"
)
```



Analysis from the boxplot

1. Dolphins have higher variability of weights in their players as the IQR has larger height meaning 50% of the players in Dolphins have larger spread in their weights and also the whiskers are spread out.
2. Broncos and Cowboys have similar median, but few players in Cowboys are underweight as indicated by the outliers. On the other hand, Cowboys's players weights is more uniform because the box size (IQR) has short height meaning that 50% of the data is centered around the median.
3. Fortyniners have variety of players, some players below 220 and some as high as 270., also the larger box size indicates that Fortyniners also have variation in large chunk of players.
4. Packers have similar spread of weights like Fortyniners, but they are less skewed as compared to Fortyniners as the median is nearly in center of the box.

Note : Issues while rendering some names , so I have attached the image below

