

# R Notebook

Code ▼

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```
library(RColorBrewer)
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```
NBAStanding<-read.csv(file='NBAS standings.csv', stringsAsFactors = FALSE)
```

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NBAStanding

Team <chr>	Wins <int>	Losses <int>	WinPct <dbl>	PtsFor <dbl>	PtsAgainst <dbl>
Chicago Bulls	62	20	0.756	98.6	91.3
San Antonio Spurs	61	21	0.744	103.7	98.0
Miami Heat	58	24	0.707	102.1	94.6
Los Angeles Lakers	57	25	0.695	101.5	95.4
Dallas Mavericks	57	25	0.695	100.2	96.0
Boston Celtics	56	26	0.683	96.5	91.1
Oklahoma City Thunder	55	27	0.671	104.8	101.0
Orlando Magic	52	30	0.634	99.2	93.7
Denver Nuggets	50	32	0.610	107.5	102.7
Portland Trail Blazers	48	34	0.585	96.3	94.8

1-10 of 30 rows

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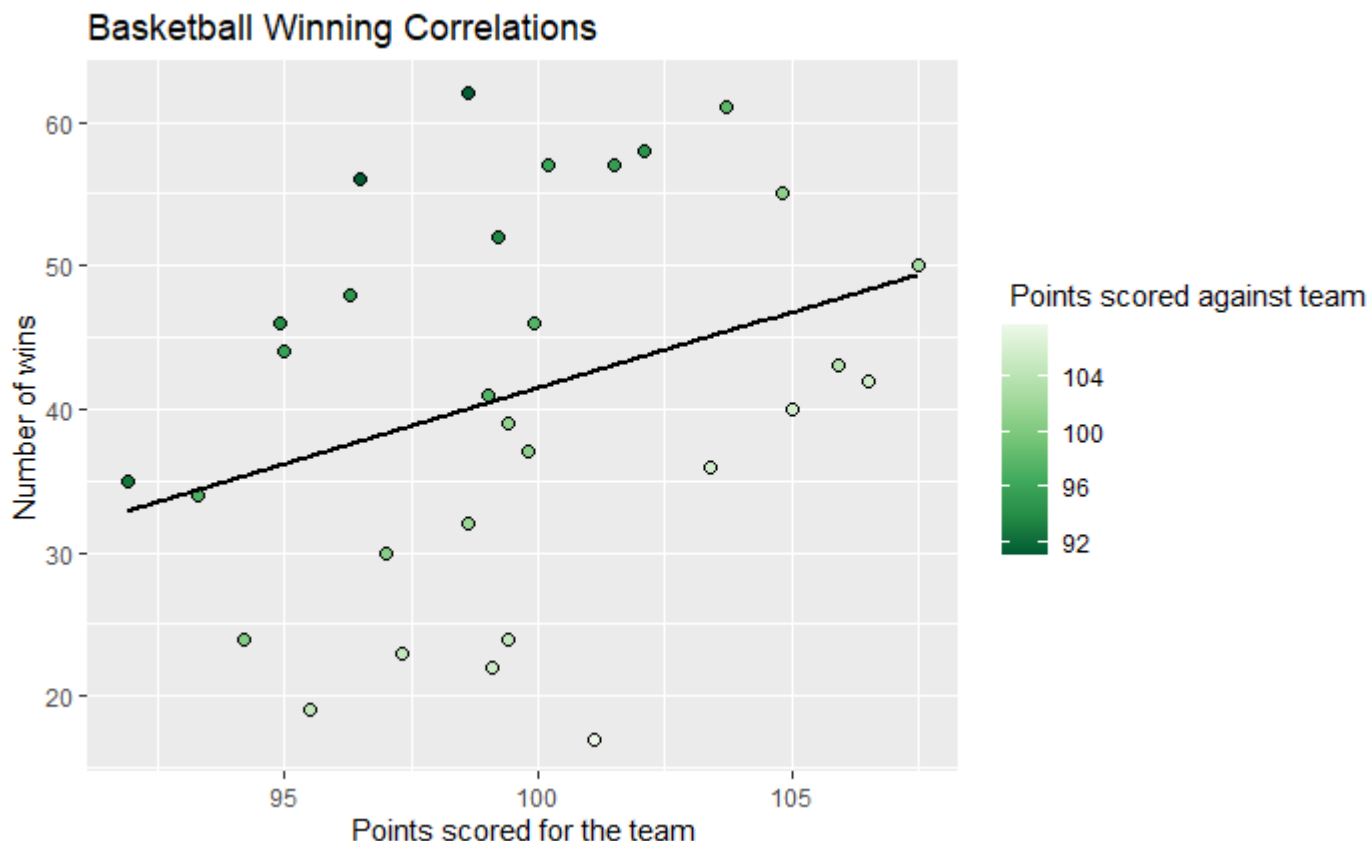
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# The data shows that the number of wins by a team is positively correlated with points scored for the team on average per game. The data also shows that there is a negative correlation between the points scored against a team and wins. This means that a team's are more likely to win when they can stop opposing teams from scoring against them and by scoring more points against the opposing teams.

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```
ggplot(NBAStanding, aes(x =PtsFor , y = Wins, fill=PtsAgainst))+geom_point(pch = 21, size = 2)+geom_smooth(method="lm",se = FALSE, color="black")+labs(title="Basketball Winning Correlations",x="Points scored for the team",y="Number of wins", fill=" Points scored against team")+scale_fill_distiller(palette="pastel1")
```

Unknown palette pastel1



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#I used a scatter plot to show the impact that points scored by and against a team have on winning matches. I used the plot's positions to show how the number of points scored for a team and winning correlate. I also used the color of the plot to show how the number of points scored against a team and matches won correlate. I changed the axis' names to help the reader easily understand what they represent. I used a smooth line to get a better representation of the slope of the line that is not as clear when viewing individual data points.

#This graph is showing that as a team scores more points, it generally results in more wins. The dot plot seem to be showing that the number of points scored against a team is negatively correlated with the number of wins. This graph proves my hypothesis that a team's number of wins can be increased when it prevents opposite teams from scoring on them and by scoring more against other teams.