

# Assignment\_01

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## Assignment\_01

```
#install.packages(ISLR)
library(ISLR)
summary(Carseats)
```

```
##      Sales      CompPrice      Income      Advertising
##  Min.   : 0.000   Min.   : 77   Min.   : 21.00   Min.   : 0.000
## 1st Qu.: 5.390   1st Qu.:115   1st Qu.: 42.75   1st Qu.: 0.000
## Median : 7.490   Median :125   Median : 69.00   Median : 5.000
## Mean   : 7.496   Mean   :125   Mean   : 68.66   Mean   : 6.635
## 3rd Qu.: 9.320   3rd Qu.:135   3rd Qu.: 91.00   3rd Qu.:12.000
## Max.   :16.270   Max.   :175   Max.   :120.00   Max.   :29.000
##      Population      Price      ShelfLoc      Age      Education
##  Min.   : 10.0   Min.   : 24.0   Bad   : 96   Min.   :25.00   Min.   :10.0
## 1st Qu.:139.0   1st Qu.:100.0   Good  : 85   1st Qu.:39.75   1st Qu.:12.0
## Median :272.0   Median :117.0   Medium:219   Median :54.50   Median :14.0
## Mean   :264.8   Mean   :115.8               Mean   :53.32   Mean   :13.9
## 3rd Qu.:398.5   3rd Qu.:131.0               3rd Qu.:66.00   3rd Qu.:16.0
## Max.   :509.0   Max.   :191.0               Max.   :80.00   Max.   :18.0
## Urban      US
## No :118   No :142
## Yes:282   Yes:258
##
##
##
##
```

```
# IQR = Q3 - Q1 = 131 - 100 = 31
IQR(Carseats$Price)
```

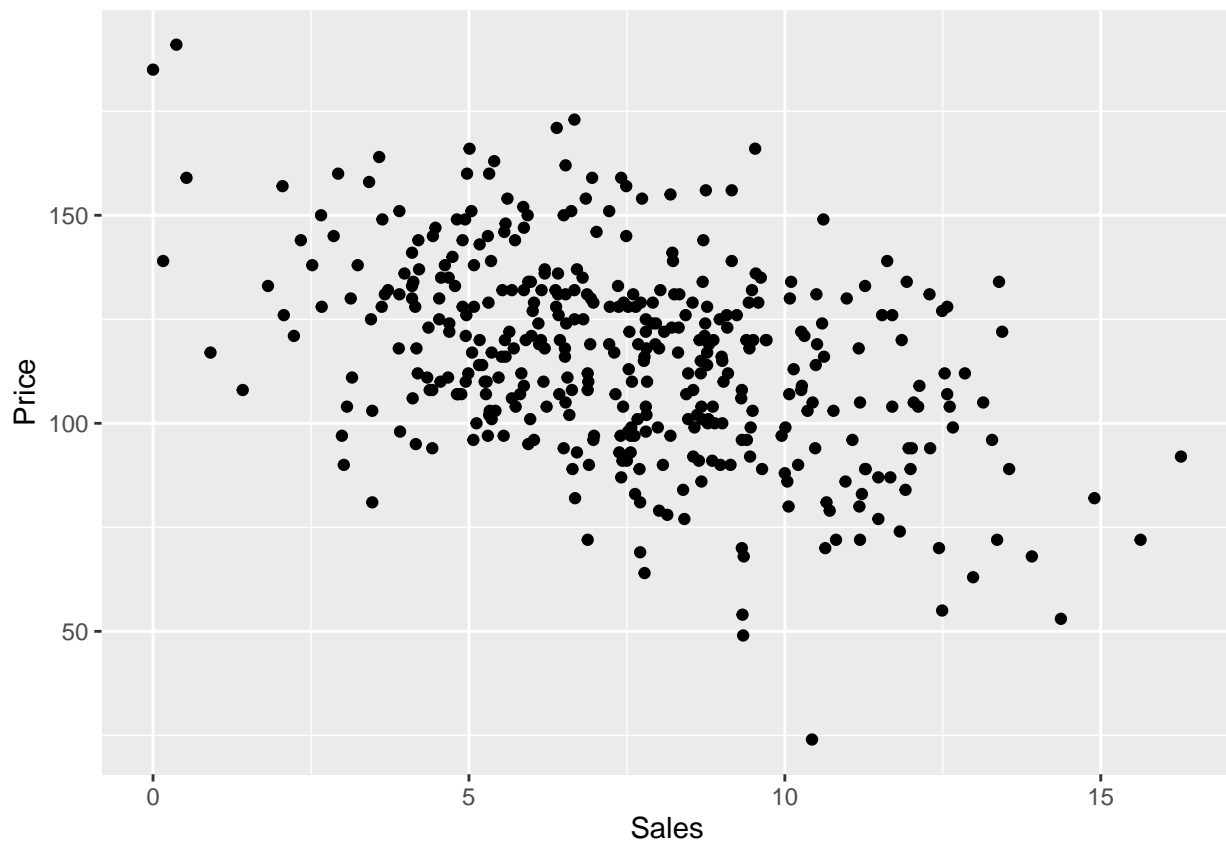
```
## [1] 31
```

IQR of the Price attribute is 31.

According to summary statistics of Carseats Data the Maximum value of Advertising attribute is 29.

## SCATTER PLOT OF SALES AGAINST PRICE

```
## -- Attaching packages ----- tidyverse 1.3.2 --
## v ggplot2 3.3.6      v purrr  0.3.4
## v tibble  3.1.8      v dplyr  1.0.10
## v tidyr   1.2.1      v stringr 1.4.1
## v readr   2.1.2      v forcats 0.5.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```



```
## [1] -0.4449507
```

Correlation of the Price and Sales attribute is :

“-0.4449507”.

The sign of the correlation coefficient suggest that there is a negative correlation between Price and Sales.