

# Business Analytics Assignment\_1

2023-09-28

Installing the ISLR package.

```
library("ISLR")
```

Printing the summary of Carseats dataset.

```
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
##
##
##
##
```

Displaying the number of observations(rows) for Carseats. The total number of observations(rows) is 400 in the carseats dataset.

```
num_observations <- nrow(Carseats)
num_observations
```

```
## [1] 400
```

Displaying the maximum value of the advertising attribute for Carseats and the value is 29.

```
max_advertising=max(Carseats$Advertising)
print(max_advertising)
```

```
## [1] 29
```

Calculated and Display the IQR of the Price attribute and the value of IQR is 31.

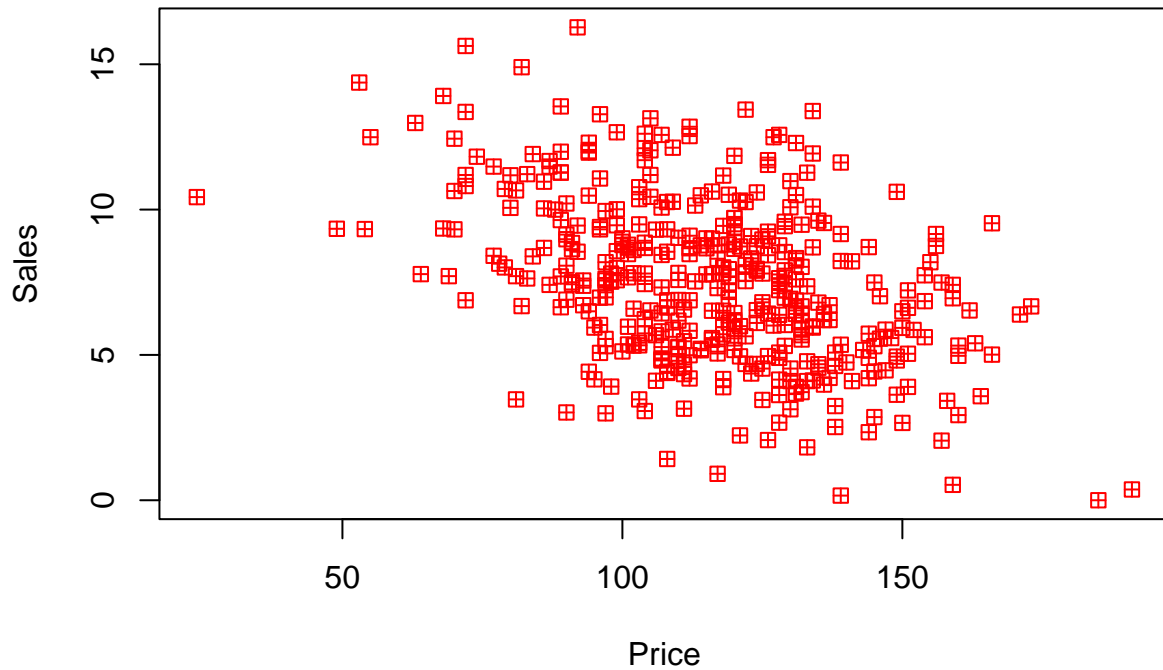
```
price_iqr <- IQR(Carseats$Price)
print(price_iqr)
```

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

Using the scatterplot to display the Sales against Price taken pch as 12 and color is red.

```
plot(Carseats$Price, Carseats$Sales, xlab = "Price", ylab = "Sales",main="Sales vs. Price",pch = 12, col = "red")
```

## Sales vs. Price



# calculating the correlation of two attributes for Sales and Price and the value is -0.44.

```
correlation <- cor(Carseats$Price, Carseats$Sales)
print(correlation)
```

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