Business Analytics 1

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#installing and calling the ISLR Package

```
library(ISLR)
```

#printing the summary and the total number of rows of the 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        ShelveLoc       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
##
##
##
##
```

```
nrow(Carseats)
```

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

#printing the maximum value of the advertising attribute

```
max(Carseats$Advertising)
```

```
## [1] 29
```
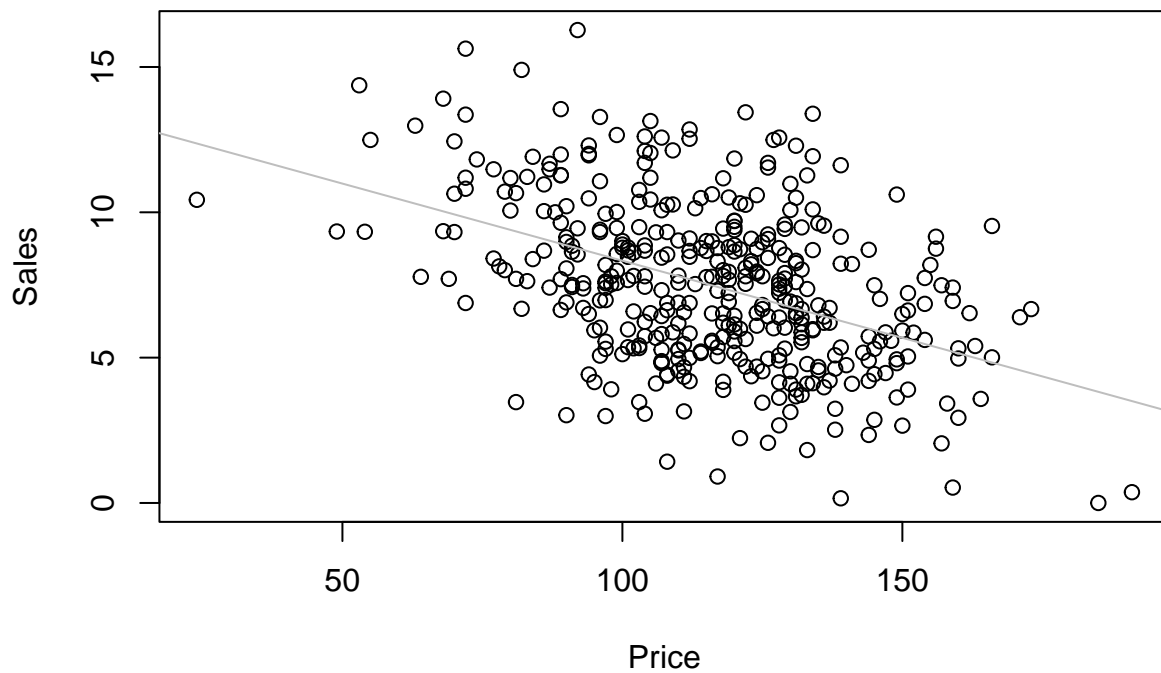
#printing the IQR of the Price attribute.

```
IQR(Carseats$Price)
```

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

#plotting sales against price and printing the correlation between two

```
correlation <- cor(Carseats$Sales, Carseats$Price)
plot(Carseats$Price, Carseats$Sales, xlab = "Price", ylab = "Sales")
abline(lm(Sales ~ Price, data = Carseats), col = "grey")
```



```
print(paste("The correlation between Sales and Price is:", correlation))
```

```
## [1] "The correlation between Sales and Price is: -0.444950727846573"
```

From the plot we can say that the attributes price and the sales are negatively correlated