BA-Assignment.1

```
#calling the ISLR package which has already been installed using install.packages(ISLR)
library(ISLR)

#printing the summarised version 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        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
##
##
##
##
```

```
#finding out the number of rows in the dataset
nrow(Carseats)
```

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

```
#calculating the maximum value of the advertising attribute
max(Carseats$Advertising)
```

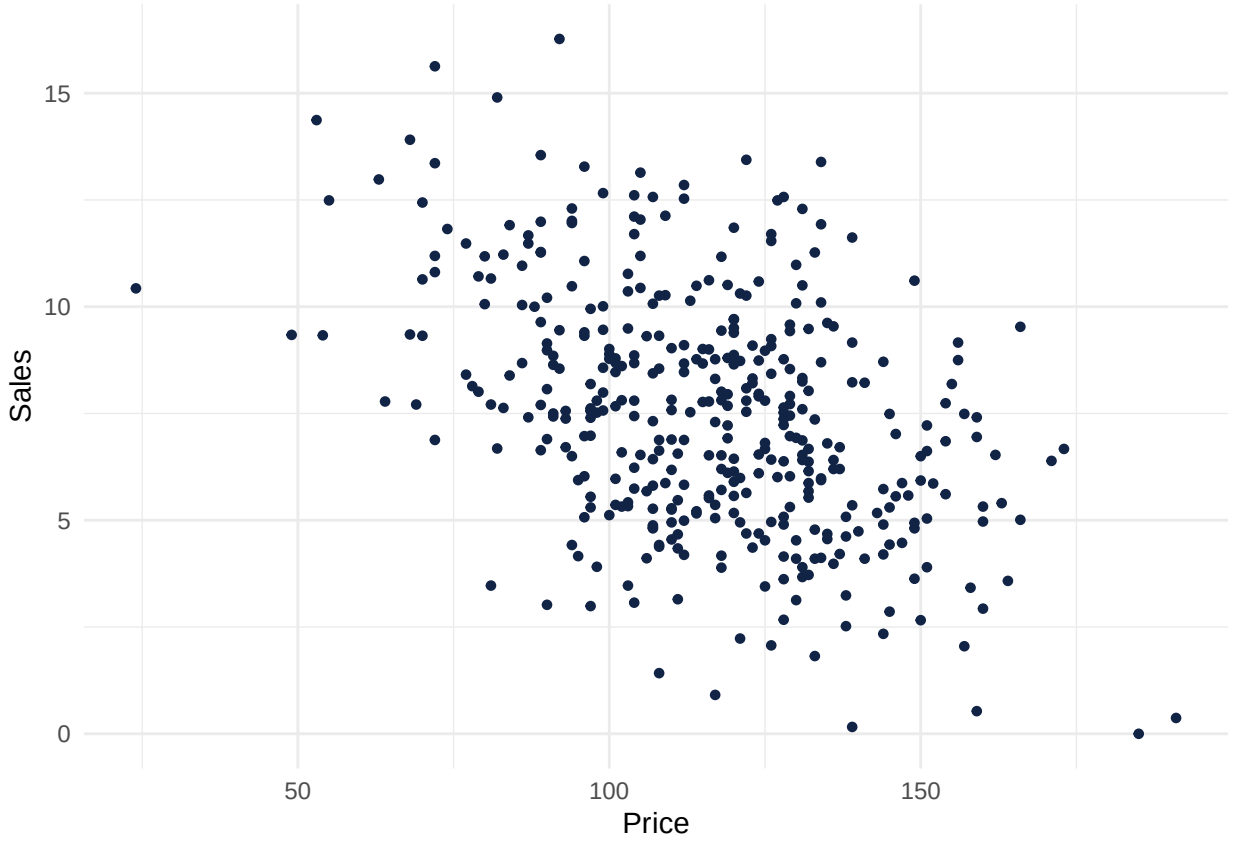
```
## [1] 29
```

```
#finding the inter-quartile range for the price attribute
IQR(Carseats$Price)
```

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

```
#plotting sales against price
library(ggplot2)
ggplot(Carseats)+
  aes(
    x = Price,
    y = Sales
  )+
```

```
  geom_point(shape="circle",size=1.2, colour="#112446")+
  theme_minimal()
```




```
#Observation: The two variables i.e. x=Price and y=sales have a negative association as they have a inv

#calculating the correlation between two attributes i.e. sales and price
cor(Carseats$Sales,Carseats$Price)
```

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

```
#Observation: The two attributes sales and price have a negative or inverse correlation as the correlat
```