

# Business Analytics - Assignment -1

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```
#Question - 1
#Install the ISLR library using the command
#install.packages(ISLR)
```

```
#Question -2
#Calling the ISLR library, summary of carseats and finding the number of rows
```

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

```
nrow(Carseats)
```

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

```
# The carseats dataset has 400 rows.
```

```
# Question -3
# Finding the maximum value of Advertising attribute.
max(Carseats$Advertising)
```

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

```
#Advertising attribute has 29 as its maximum value.
```

```
#Question - 4
```

```
# Finding the IQR value of price attribute
```

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

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

```
#Price Attribute has 31 as its IQR value
```

```
#Question - 5
```

```
#Plotting the Sales over price and finding the correlation.
```

```
library(ggplot2)
```

```
ggplot(Carseats)+
```

```
  aes(
```

```
    x=Sales,
```

```
    y=Price
```

```
  )+
```

```
  geom_point(shape="circle", size = 1.2, colour="orange")+
```

```
  theme_minimal()
```



*#Customers are more likely to purchase lower-priced car seats since there is no correlation between the number of units scored and the price of the seats.*