Harshith Kumar Yadav_MSBA_64060_Assignment-1

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```
knitr::opts_chunk$set(echo = TRUE)
```

Download data set

Import

https://www.kaggle.com/datasets/aungpyaeap/supermarket-sales

```
supermarket_sales <- read.csv("C:/Users/Harshith
Kumar/Downloads/supermarket_sales.csv", header = TRUE, sep = ",")

head(supermarket_sales)
```

```
##    Invoice.ID Branch      City Customer.type Gender           Product.line
## 1 750-67-8428      A    Yangon        Member Female      Health and beauty
## 2 226-31-3081      C Naypyitaw        Normal Female Electronic accessories
## 3 631-41-3108      A    Yangon        Normal   Male     Home and lifestyle
## 4 123-19-1176      A    Yangon        Member   Male      Health and beauty
## 5 373-73-7910      A    Yangon        Normal   Male      Sports and travel
## 6 699-14-3026      C Naypyitaw        Normal   Male Electronic accessories
##   Unit_price Quantity  Tax.5.    Total       Date  Time     Payment   cogs
## 1      74.69        7 26.1415 548.9715 01-05-2019 13:08     Ewallet 522.83
## 2      15.28        5  3.8200  80.2200 03-08-2019 10:29        Cash  76.40
## 3      46.33        7 16.2155 340.5255 03-03-2019 13:23 Credit card 324.31
## 4      58.22        8 23.2880 489.0480  1/27/2019 20:33     Ewallet 465.76
## 5      86.31        7 30.2085 634.3785 02-08-2019 10:37     Ewallet 604.17
## 6      85.39        7 29.8865 627.6165  3/25/2019 18:30     Ewallet 597.73
##   gross.margin.percentage gross.income Rating
## 1                4.761905      26.1415    9.1
## 2                4.761905       3.8200    9.6
## 3                4.761905      16.2155    7.4
## 4                4.761905      23.2880    8.4
## 5                4.761905      30.2085    5.3
## 6                4.761905      29.8865    4.1
```

Descriptive statistics for quantitative variables

```
summary(supermarket_sales$Unit_price)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   10.08   32.88   55.23   55.67   77.94   99.96
```

```
summary(supermarket_sales$Total)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   10.68  124.42  253.85  322.97  471.35 1042.65
```

Descriptive statistics for categorical variables

```
table(supermarket_sales$Payment)
```

```
##
##        Cash Credit card     Ewallet
##         344         311         345
```

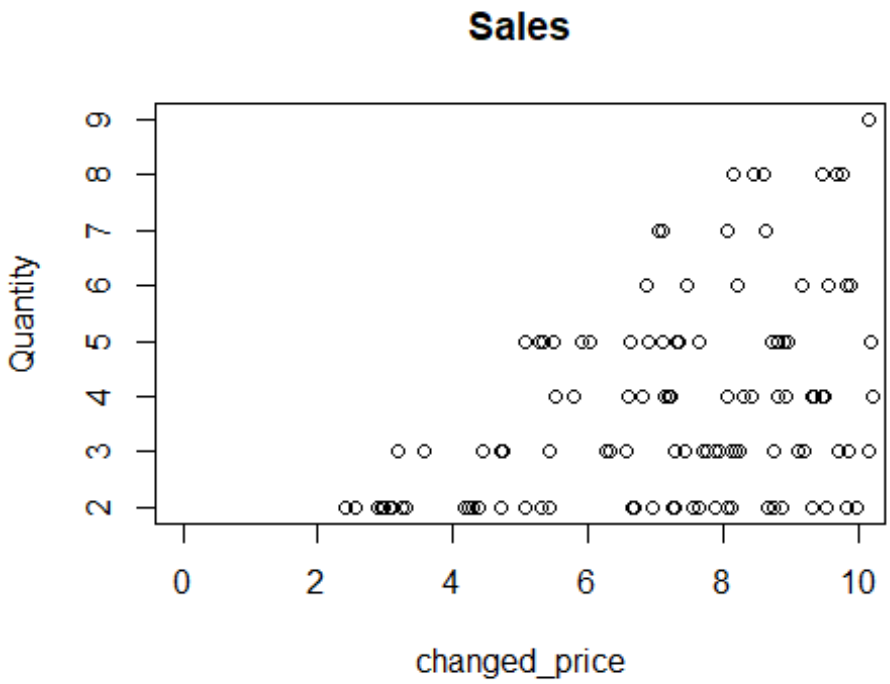
```
table(supermarket_sales$Product.line)
```

```
##
## Electronic accessories    Fashion accessories     Food and beverages
##                    170                    178                    174
##      Health and beauty     Home and lifestyle      Sports and travel
##                    152                    160                    166
```

Transformation of the data

```
net.income <-  supermarket_sales$gross.income - supermarket_sales$Tax
supermarket_sales$net.income <- c(net.income)
changed_price = supermarket_sales$cogs/10
```

```
plot(x =changed_price, y =supermarket_sales$Quantity,
     xlab = "changed_price",
     ylab = "Quantity",
     xlim = c(0,10),
     ylim = c(2,9),
     main = "Sales"
)
```




```
product_table = table(supermarket_sales$Product.line)
barplot(product_table, xlab = "Product line", ylab = "Quantity",main =
"sales",col = "red")
```