

Machine learning Assignment 1

Gloria

2022-09-11

```
ml001_dataset <- read.csv(file.choose())
View(ml001_dataset)

head(ml001_dataset)

##                                Title      Book_category Star_rating
Price
## 1          A Light in the Attic          Poetry          Three
51.77
## 2          Tipping the Velvet Historical Fiction          One
53.74
## 3          Soumission          Fiction          One
50.10
## 4          Sharp Objects          Mystery          Four
47.82
## 5 Sapiens: A Brief History of Humankind          History          Five
54.23
## 6          The Requiem Red          Young Adult          One
22.65
##      Stock Quantity
## 1 In stock      22
## 2 In stock      20
## 3 In stock      20
## 4 In stock      20
## 5 In stock      20
## 6 In stock      19

tail(ml001_dataset)

##                                Title
## 995          Beyond Good and Evil
## 996 Alice in Wonderland (Alice's Adventures in Wonderland #1)
## 997          Ajin: Demi-Human, Volume 1 (Ajin: Demi-Human #1)
## 998          A Spy's Devotion (The Regency Spies of London #1)
## 999          1st to Die (Women's Murder Club #1)
## 1000          1,000 Places to See Before You Die
##      Book_category Star_rating Price      Stock Quantity
## 995          Philosophy          One 43.38 In stock      1
## 996          Classics          One 55.53 In stock      1
## 997          Sequential Art          Four 57.06 In stock      1
## 998          Historical Fiction          Five 16.97 In stock      1
```

```

## 999          Mystery          One 53.98 In stock          1
## 1000         Travel          Five 26.08 In stock          1

nrow(ml001_dataset)

## [1] 1000

ncol(ml001_dataset)

## [1] 6

str(ml001_dataset)

## 'data.frame': 1000 obs. of 6 variables:
## $ Title : chr "A Light in the Attic" "Tipping the Velvet"
## "Soumission" "Sharp Objects" ...
## $ Book_category: chr "Poetry" "Historical Fiction" "Fiction" "Mystery"
## ...
## $ Star_rating : chr "Three" "One" "One" "Four" ...
## $ Price : num 51.8 53.7 50.1 47.8 54.2 ...
## $ Stock : chr "In stock" "In stock" "In stock" "In stock" ...
## $ Quantity : int 22 20 20 20 20 19 19 19 19 19 ...

summary(ml001_dataset)

## Title Book_category Star_rating Price
## Length:1000 Length:1000 Length:1000 Min. :10.00
## Class :character Class :character Class :character 1st Qu.:22.11
## Mode :character Mode :character Mode :character Median :35.98
## Mean :35.07
## 3rd Qu.:47.46
## Max. :59.99
## Stock Quantity
## Length:1000 Min. : 1.000
## Class :character 1st Qu.: 3.000
## Mode :character Median : 7.000
## Mean : 8.585
## 3rd Qu.:14.000
## Max. :22.000

ml001_dataset_arrange <- (ml001_dataset$Price +
sd(ml001_dataset$Price)/var(ml001_dataset$Price))
ml001_dataset_arrange

## [1] 51.83922 53.80922 50.16922 47.88922 54.29922 22.71922 33.40922
## 17.99922
## [9] 22.66922 52.21922 14.05922 20.72922 17.52922 52.35922 35.08922
## 57.31922
## [17] 23.94922 37.65922 51.39922 45.23922 12.90922 37.38922 30.58922
## 25.33922
## [25] 34.59922 54.70922 22.56922 53.19922 40.36922 44.24922 17.72922
## 31.11922

```

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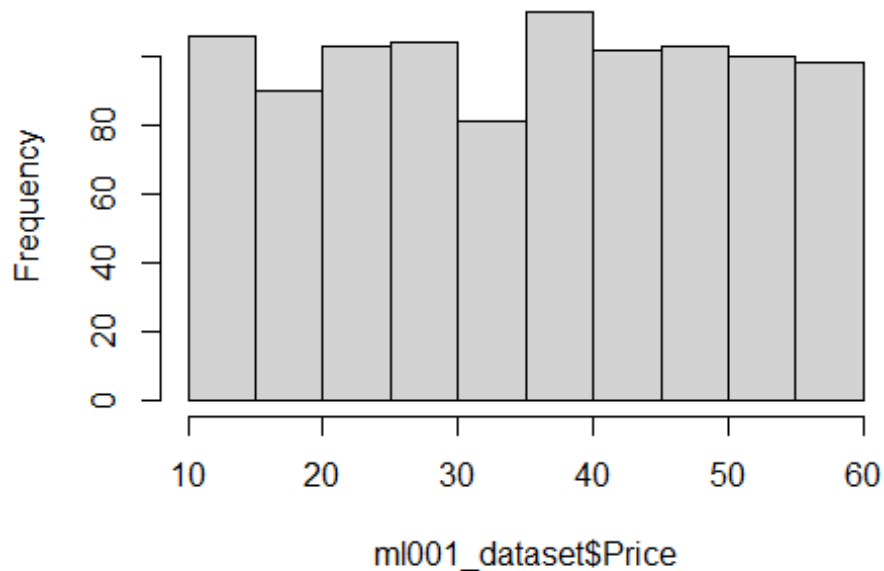
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37.32922
## [993] 20.36922 34.71922 43.44922 55.59922 57.12922 17.03922 54.04922
26.14922
```

```
hist(ml001_dataset$Price)
```

Histogram of ml001_dataset\$Price



```
ml001_dataset$Price <- (ml001_dataset$Price -  
mean(ml001_dataset$Price)/sd(ml001_dataset$Price))  
ml001_dataset$Price  
##      [1] 49.34243 51.31243 47.67243 45.39243 51.80243 20.22243 30.91243  
15.50243  
##      [9] 20.17243 49.72243 11.56243 18.23243 15.03243 49.86243 32.59243  
54.82243  
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47.97243  
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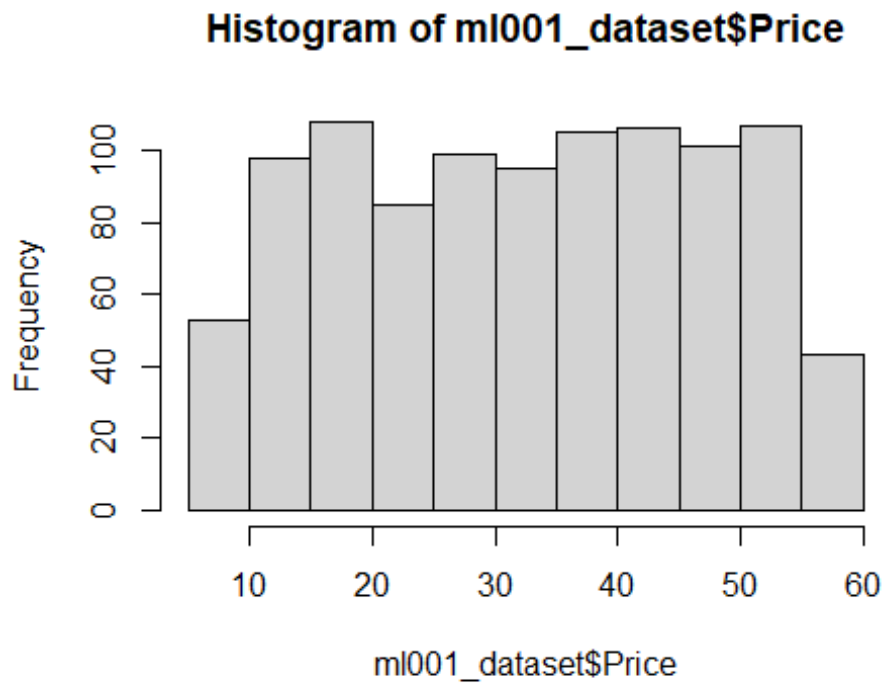
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```

```
hist(ml001_dataset$Price)
```



```
x <- ml001_dataset$Price  
y <- ml001_dataset$Quantity  
  
plot(x,y, main = "price and quantity", xlab = "price", ylab = "Quantity")
```

price and quantity

