Assignment1_ML_1

Sai Sree Pulimamidi

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```
dataset = read.csv("C:/Users/ravin/Downloads/sai sree/universitylist.csv")
dataset
```

```
##    Year Industry_aggregation_NZSIOC Industry_code_NZSIOC Industry_name_NZSIOC
## 1  2020                     Level 1                    5       All industries
## 2  2020                     Level 1                    6       All industries
## 3  2020                     Level 1                    5       All industries
## 4  2020                     Level 1                    6       All industries
## 5  2020                     Level 1                    6       All industries
## 6  2020                     Level 1                    3       All industries
## 7  2020                     Level 1                    3       All industries
## 8  2020                     Level 1                    6       All industries
## 9  2020                     Level 1                   58       All industries
## 10 2020                     Level 1                   58       All industries
## 11 2020                     Level 1                   58       All industries
## 12 2020                     Level 1                   67       All industries
## 13 2020                     Level 1                   67       All industries
## 14 2020                     Level 1                   67       All industries
##                 Units Variable_code
## 1  Dollars (millions)           H01
## 2  Dollars (millions)           H04
## 3  Dollars (millions)           H05
## 4  Dollars (millions)           H07
## 5  Dollars (millions)           H08
## 6  Dollars (millions)           H09
## 7  Dollars (millions)           H10
## 8  Dollars (millions)           H11
## 9  Dollars (millions)           H12
## 10 Dollars (millions)           H13
## 11 Dollars (millions)           H14
## 12 Dollars (millions)           H19
## 13 Dollars (millions)           H20
## 14 Dollars (millions)           H21
##                                        Variable_name     Variable_category
## 1                                       Total income Financial performance
## 2                                       Total income Financial performance
## 3                  Interest, dividends and donations Financial performance
## 4                              Non-operating income Financial performance
## 5                                 Total expenditure Financial performance
## 6                            Interest and donations Financial performance
## 7                            Interest and donations Financial performance
## 8                            Interest and donations Financial performance
```

```
## 9                                 Interest and donations Financial performance
## 10                               Redundancy and severance Financial performance
## 11 Salaries and wages to self employed commission agents Financial performance
## 12 Salaries and wages to self employed commission agents Financial performance
## 13 Salaries and wages to self employed commission agents Financial performance
## 14                                       Opening stocks Financial performance
##    Value
## 1     56
## 2     56
## 3     56
## 4     72
## 5     72
## 6     86
## 7     89
## 8     72
## 9     49
## 10    49
## 11    49
## 12    98
## 13    98
## 14    98
##                                                                                 Industry
## 1  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 2  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 3  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 4  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 5  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 6  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 7  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 8  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 9  ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 10 ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 11 ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 12 ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 13 ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
## 14 ANZSIC06 divisions A-S (excluding classes K6330, L6711, O7552, O760, O771, O772, S9540, S9601, S9
```

```
mean(dataset$Industry_code_NZSIOC)
```

```
## [1] 29.64286
```

```
sd(dataset$Industry_code_NZSIOC)
```

```
## [1] 29.70265
```

```
table(dataset$Variable_name)
```

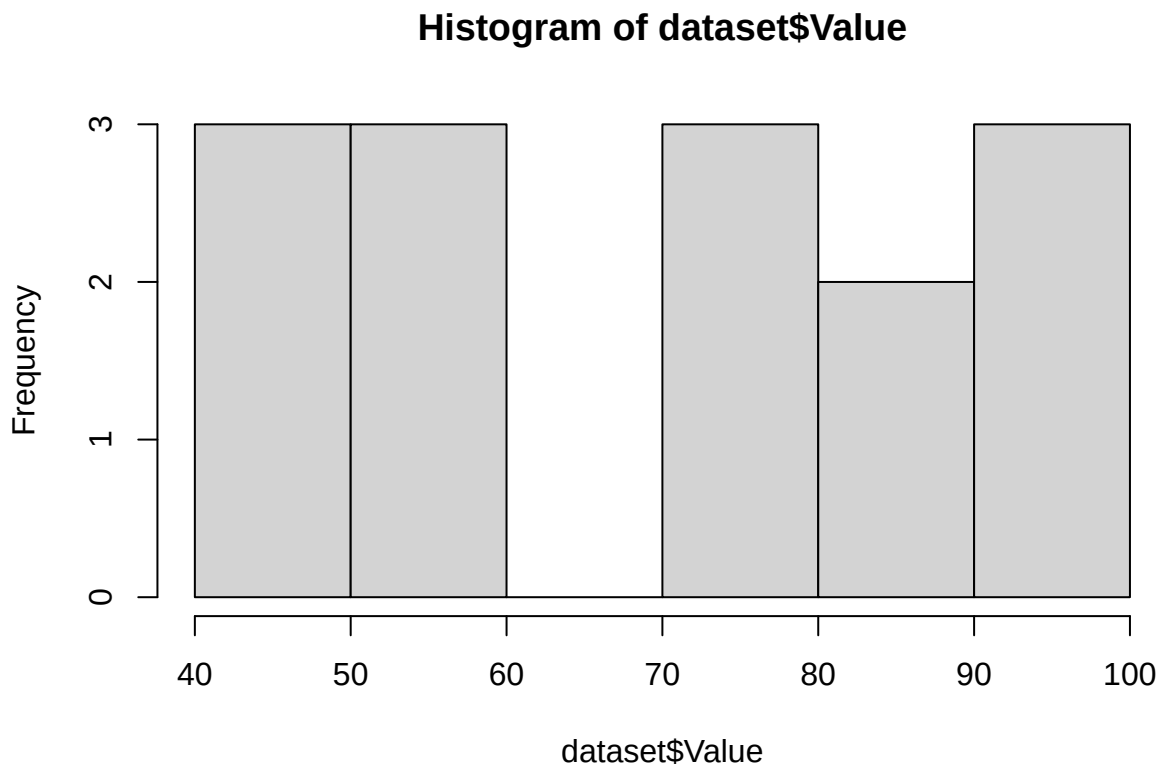
```
##
##                                Interest and donations
##                                                     4
##                     Interest, dividends and donations
##                                                     1
```

```
##                                     Non-operating income
##                                                        1
##                                           Opening stocks
##                                                        1
##                                  Redundancy and severance
##                                                        1
## Salaries and wages to self employed commission agents
##                                                        3
##                                        Total expenditure
##                                                        1
##                                             Total income
##                                                        2
```

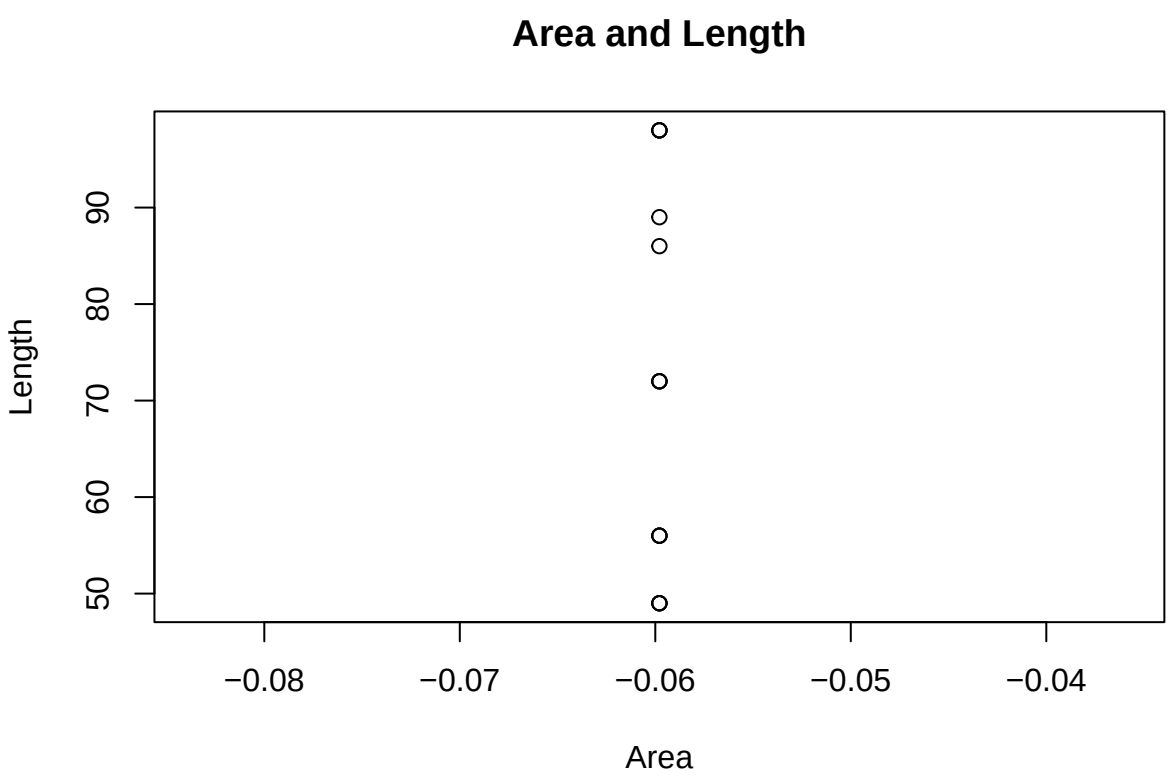
```
dataset$Industry_code_NZSIOC= mean(dataset$Industry_code_NZSIOC)- sd(dataset$Industry_code_NZSIOC)
dataset$Industry_code_NZSIOC
```

```
##  [1] -0.05979009 -0.05979009 -0.05979009 -0.05979009 -0.05979009 -0.05979009
##  [7] -0.05979009 -0.05979009 -0.05979009 -0.05979009 -0.05979009 -0.05979009
## [13] -0.05979009 -0.05979009
```

```
hist(dataset$Value)
```




```
x = dataset$Industry_code_NZSIOC
y = dataset$Value
plot(x,y, main = "Area and Length", xlab = "Area", ylab = "Length")
```


Area and Length
Length
50
60
70
80
90
−0.08
−0.07
−0.06
−0.05
−0.04
Area