Assignment 1- Fundamentals of Machine Learning

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#Importing the dataset into R

```
data = read.csv("C:/Users/diksh/OneDrive/Desktop/Kent/3 FML/FML Assignment 1/Dataset.csv")
View(data)
summary(data)
```

```
##      index           Breed           Classification         obey
##  Min.   :  0.00   Length:136         Length:136         Length:136
##  1st Qu.: 33.75   Class :character   Class :character   Class :character
##  Median : 67.50   Mode  :character   Mode  :character   Mode  :character
##  Mean   : 67.50
##  3rd Qu.:101.25
##  Max.   :135.00
##    reps_lower      reps_upper
##  Min.   : 1.00   Min.   :  4.00
##  1st Qu.:16.00   1st Qu.: 25.00
##  Median :26.00   Median : 40.00
##  Mean   :25.59   Mean   : 41.51
##  3rd Qu.:26.00   3rd Qu.: 40.00
##  Max.   :81.00   Max.   :100.00
```

#Calculating the standard deviation for reps_upper and mean for reps_lower

```
sd(data$reps_upper)
```

```
## [1] 28.19587
```

```
mean(data$reps_lower)
```

```
## [1] 25.58824
```

#Dataset transformed

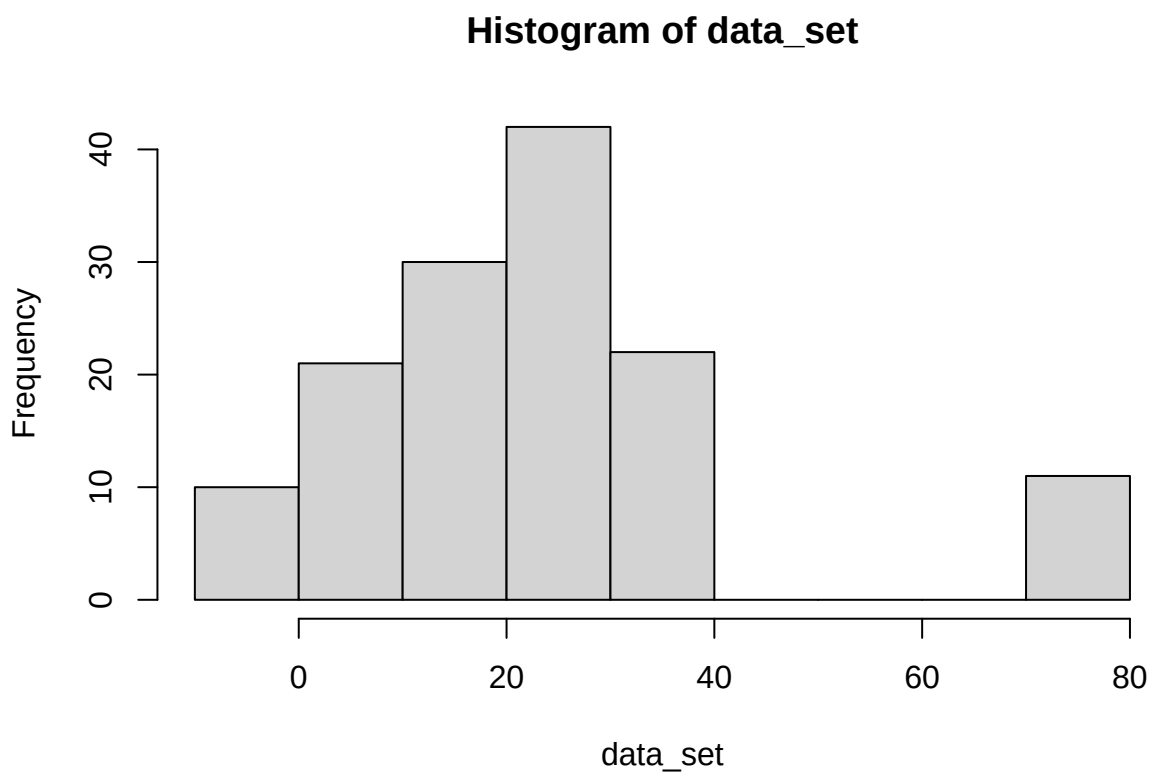
```
data_set= (data$reps_lower - mean(data$reps_lower/sd(data$reps_lower)))
data_set
```

```
##   [1] -0.2484356 -0.2484356 -0.2484356 -0.2484356 -0.2484356 -0.2484356
##   [7] -0.2484356 -0.2484356 -0.2484356 -0.2484356  3.7515644  3.7515644
##  [13]  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644
```

```
##  [19]  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644
##  [25]  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644  3.7515644
##  [31]  3.7515644 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644
##  [37] 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644
##  [43] 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644
##  [49] 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644
##  [55] 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644 14.7515644
##  [61] 14.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [67] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [73] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [79] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [85] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [91] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
##  [97] 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644 24.7515644
## [103] 24.7515644 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644
## [109] 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644
## [115] 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644
## [121] 39.7515644 39.7515644 39.7515644 39.7515644 39.7515644 79.7515644
## [127] 79.7515644 79.7515644 79.7515644 79.7515644 79.7515644 79.7515644
## [133] 79.7515644 79.7515644 79.7515644 79.7515644
```

#Plotting of histogram

```
hist(data_set)
```



#Scatterplot

```r
x = data$reps_lower
y = data$reps_upper

plot(x,y, main = "reps_lower and reps_upper", xlab = "reps_lower" , ylab = "reps_upper" )
```