FML Assignment1

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2023-09-09

#Imported Forestfires dataset from https://archive.ics.uci.edu/dataset/162/forest+fires

```
Value=read.csv("C:\\Users\\maggi\\Desktop\\forestfires.csv")
#value
#The above snippet outputs the data in the dataset of Forestfires
```

#The below code gives the descriptive statistics of the dataset that has mean,median,mode and the deviation so on..

```
#summary(Value)
#The above gives whole summary of the table

a=mean(Value$wind)
print(a)
```

```
## [1] 4.017602
```

```
b=median(Value$day)
print(b)
```

```
## [1] "sun"
```

```
c=mode(Value$DC)
print(c)
```

```
## [1] "numeric"
```

#we have different transformations such as log,exponents,min-max and so on.In this I have transformed the variable into logarithmic form.

```
valueData <- log(Value$wind)
valueData
```

```
##    [1]  1.9021075 -0.1053605  0.2623643  1.3862944  0.5877867  1.6863990
##    [7]  1.1314021  0.7884574  1.6863990  1.3862944  1.9740810  1.3862944
##   [13]  1.9021075  0.7884574  1.5040774  1.6863990  1.6863990  1.5892352
##   [19]  1.3862944  1.5040774  0.9932518  0.9932518  1.5040774  1.7578579
##   [25]  1.7578579  1.6863990  1.7578579  0.2623643  0.9932518  1.2809338
```
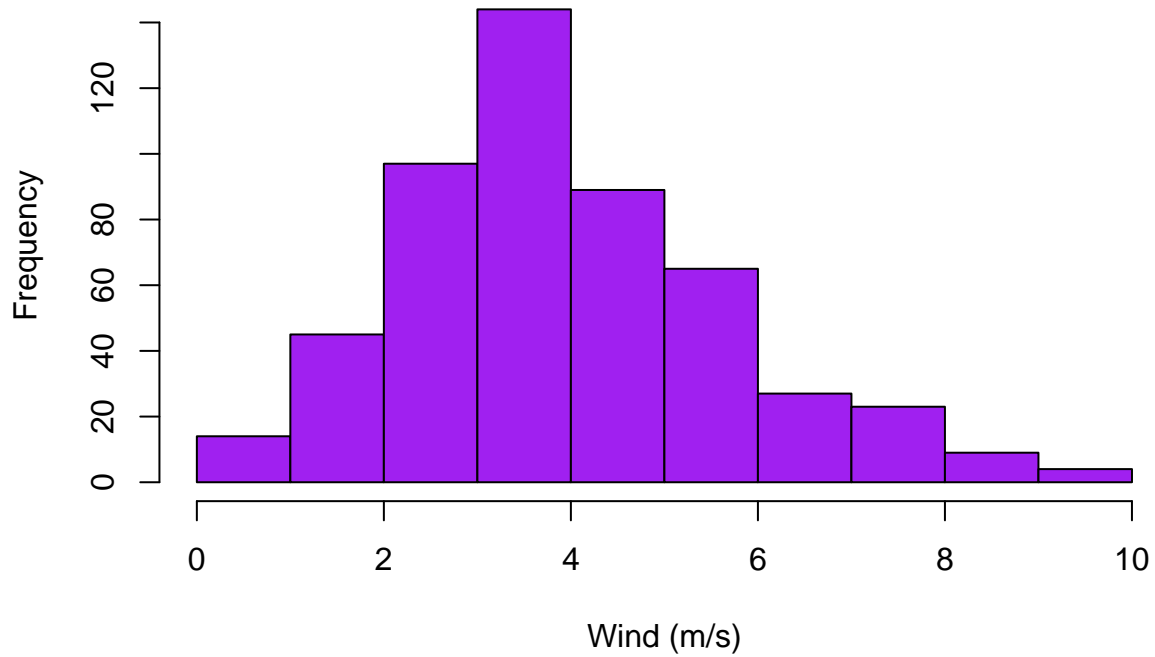
```
##  [31]  1.2809338  2.0281482  0.5877867  1.2809338  0.9932518  1.5040774
##  [37]  1.5040774  1.6863990  1.3862944  0.9932518  1.1314021  1.9021075
##  [43]  1.6863990  0.9932518  1.5892352  1.3862944  1.2809338  1.1314021
##  [49]  0.5877867  1.7578579  0.2623643  0.7884574  1.5892352  1.5892352
##  [55]  1.2809338  0.7884574  1.5892352  0.9932518  1.6863990 -0.1053605
##  [61]  1.7578579  1.8405496  1.5892352  0.9932518  1.1314021  1.5040774
##  [67]  1.5040774  1.6863990  1.8405496  1.5040774  2.0281482  1.2809338
##  [73]  1.8405496  1.5040774  0.2623643  1.1314021  1.1314021  1.1314021
##  [79]  0.9932518  1.9021075  1.8405496  0.7884574  1.5040774 -0.1053605
##  [85]  1.2809338 -0.1053605  0.7884574  0.7884574  1.2809338  1.5892352
##  [91]  1.7578579  1.6863990  1.8405496  1.5892352  0.9932518  0.2623643
##  [97]  0.5877867  1.6863990  1.5040774  1.6863990  1.6863990  1.6863990
## [103]  1.3862944  1.5040774  1.1314021  1.8405496  1.1314021  1.1314021
## [109]  1.1314021  1.6863990  1.7578579  1.5040774  1.2809338  0.9932518
## [115]  2.0281482  1.8405496  1.8405496  1.5892352  1.3862944  1.1314021
## [121]  0.7884574  1.6863990  1.6863990  1.1314021  1.6863990  1.6863990
## [127]  0.7884574  1.1314021  1.2809338 -0.1053605  0.9932518  1.1314021
## [133]  1.5892352  1.1314021  0.9932518  1.7578579  0.2623643  1.1314021
## [139]  0.9932518  0.7884574  0.5877867  1.5040774  2.1860513  1.6863990
## [145]  1.6863990  1.3862944  1.6863990  1.2809338  1.9021075  1.5040774
## [151]  1.6863990  0.7884574  0.5877867  1.5892352  0.9932518  0.2623643
## [157]  0.7884574  1.2809338  1.3862944  1.7578579  1.1314021  1.3862944
## [163]  2.1400662  0.5877867  0.7884574  1.5040774 -0.1053605  1.5040774
## [169]  2.2407097  0.7884574  0.5877867  1.3862944  1.6863990  0.7884574
## [175]  0.5877867  1.5892352  1.7578579  0.9932518  0.7884574  1.6863990
## [181]  1.9021075  1.3862944  0.7884574  1.5040774  1.5892352  1.1314021
## [187]  1.7578579  0.7884574 -0.1053605  1.3862944  1.3862944  0.9932518
## [193]  1.5040774  1.3862944  1.5040774  1.6863990  1.7578579 -0.1053605
## [199]  1.8405496  1.2809338  0.7884574  1.2809338  0.7884574  0.9932518
## [205]  1.3862944  0.5877867  1.9740810  0.7884574  1.8405496  1.5892352
## [211]  1.1314021  1.7578579  1.5892352  1.7578579  1.5892352  1.5892352
## [217]  0.2623643  1.8405496  0.2623643  1.1314021  1.1314021  1.2809338
## [223]  1.7578579  1.2809338  1.5040774  1.5892352  1.3862944  1.5040774
## [229]  1.1314021  1.3862944  1.5040774  1.1314021  0.9932518  1.1314021
## [235]  1.1314021  1.7578579  0.5877867  0.7884574  1.3862944  0.5877867
## [241]  0.9932518  1.1314021  1.3862944  2.0281482  2.0281482  1.8405496
## [247]  1.6863990  0.7884574  0.9932518 -0.9162907  1.1314021  1.1314021
## [253]  1.2809338  0.9932518  1.1314021  1.3862944  0.7884574  0.9932518
## [259] -0.1053605  0.5877867  1.3862944  2.0281482  1.1314021  1.2809338
## [265]  1.1314021  2.0281482  1.3862944  1.1314021  1.1314021  0.9932518
## [271]  1.1314021  1.5040774  1.3862944  2.1400662  2.0794415  1.5892352
## [277]  2.1400662  2.1400662  2.1400662  2.1400662  1.5892352  2.1400662
## [283]  1.3862944  1.1314021  2.0794415  1.8405496  2.0281482  0.9932518
## [289]  0.5877867  0.5877867  0.5877867 -0.1053605  0.2623643  1.6863990
## [295]  1.2809338  0.2623643  0.5877867  0.7884574  1.5892352  0.9932518
## [301]  1.5892352  1.6863990  1.5040774  1.5040774  1.5892352  0.7884574
## [307]  1.6863990  1.2809338  0.5877867  0.7884574  0.9932518  0.5877867
## [313]  1.8405496  1.5892352  0.5877867  0.9932518  1.7578579  1.5892352
## [319]  0.7884574  1.8405496  1.9740810  1.3862944  1.3862944  0.9932518
## [325]  0.5877867  1.1314021  1.1314021  0.7884574  0.5877867  1.3862944
## [331]  1.1314021  1.5040774  0.7884574  1.1314021  1.6863990  0.5877867
## [337]  0.7884574  0.7884574  0.7884574  0.5877867  0.7884574  0.7884574
## [343]  0.5877867  1.5040774  1.5892352  1.1314021  0.7884574  1.2809338
## [349]  1.5040774  1.2809338  1.2809338  1.8405496  1.2809338  0.9932518
```

```
## [355]   0.7884574   1.5892352   1.5892352   1.2809338   0.9932518   0.7884574
## [361]   0.7884574   1.3862944   1.1314021   0.7884574   0.9932518   1.1314021
## [367]   1.6863990   1.2809338   1.5892352   2.0281482   2.0281482   1.3862944
## [373]  -0.1053605   0.9932518   1.3862944   1.5892352   0.7884574   0.7884574
## [379]   1.7578579  -0.1053605   1.9740810   0.9932518   0.5877867   0.9932518
## [385]   1.5040774   0.7884574   1.6863990   1.6863990   1.1314021   1.1314021
## [391]   1.8405496   0.9932518   1.3862944   2.0281482   0.5877867   0.5877867
## [397]   1.5892352   1.2809338   1.1314021   1.5040774   1.5040774   1.3862944
## [403]   1.3862944   1.2809338   0.7884574   0.7884574   1.5892352   1.3862944
## [409]   1.1314021   1.6863990   0.9932518   2.2407097   1.5040774   1.2809338
## [415]   1.3862944   1.5892352   1.1314021   1.7578579   1.6863990   1.3862944
## [421]   1.5040774   1.5040774   1.2809338   1.3862944   1.2809338   0.7884574
## [427]   0.7884574   0.7884574   1.7578579   1.3862944   1.2809338   1.3862944
## [433]   1.9021075   1.5892352   1.2809338   0.5877867   0.2623643   0.9932518
## [439]   1.3862944   0.7884574   1.2809338   0.5877867   1.1314021   2.0794415
## [445]   1.2809338   1.5040774   0.7884574   2.0794415   1.3862944   1.5892352
## [451]   1.6863990   1.5892352   1.3862944   1.1314021   1.1314021   0.9932518
## [457]   0.9932518   1.3862944   1.5892352   2.0794415   1.5892352   1.5892352
## [463]   2.0281482   1.8405496   1.6863990  -0.1053605   1.7578579   1.6863990
## [469]   1.2809338   2.2407097   1.7578579   1.3862944   1.3862944   1.1314021
## [475]   0.9932518   2.2407097   0.2623643   1.3862944   1.5040774   1.5892352
## [481]   1.5040774   1.5892352   1.7578579   1.6863990   1.3862944   1.2809338
## [487]   1.8405496   1.2809338   2.0281482   0.2623643   1.3862944   1.5040774
## [493]   0.7884574   1.5040774   1.5892352   0.7884574   1.1314021   0.7884574
## [499]   0.9932518   1.5892352   1.5892352   1.5892352   1.5892352   1.5892352
## [505]   1.5892352   0.5877867   2.1400662   1.2809338   1.2809338   2.0281482
## [511]   1.6863990   0.9932518   0.9932518   1.7578579   1.9021075   1.3862944
## [517]   1.5040774
```

#I have plotted the histogram graph of wind variable(Quantitative variable) and frequency.In this we will know how frequently the winds are moving at certain speeds.

```
#plot(Value) This gives the default graphs
hist(Value$wind, main = "Wind Histogram",
     xlab = "Wind (m/s)", col = "purple")
```

3

Wind Histogram

#The below graph is the scatter plot between temperature and RH variables.Here we can know the outliers,data distribution and many.

```
x=Value$temp
y=Value$RH
plot(x,y,xlim=c(1,10),main= "Temp-RH Scatter Plot", xlab = "Temp", ylab= "RH")
```

Temp−RH Scatter Plot