

Statistics

PART 1

Step- 1: Bayonet<- read.csv(file.choose())

Bayonet

Step-2

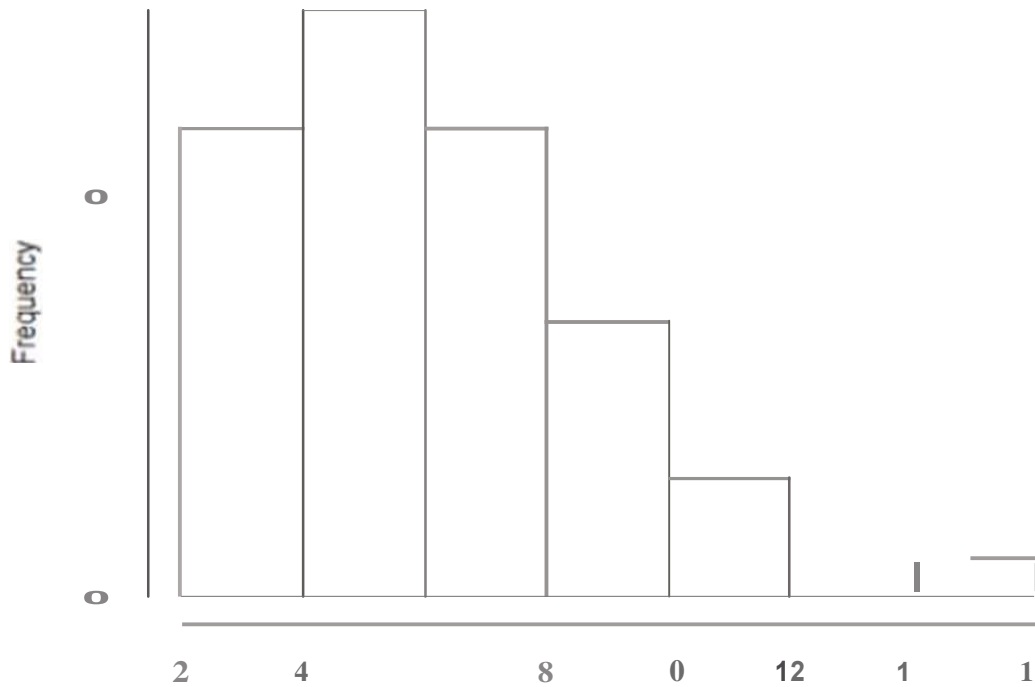


Figure 1 Histogram of Length of Stay

The figure 1 shows the histogram of length of stay. In the X axis shows the different class and in the Y axis shows the frequency. It has been seen that the highest frequency has been occurred in the 4-6 class and the frequency is approximately to 15. The minimum frequency has been occurred in 14-16 class and is less than 5. The histogram is symmetric and normal. Moreover, there is an outlier has been seen in the class of 14 to 16.

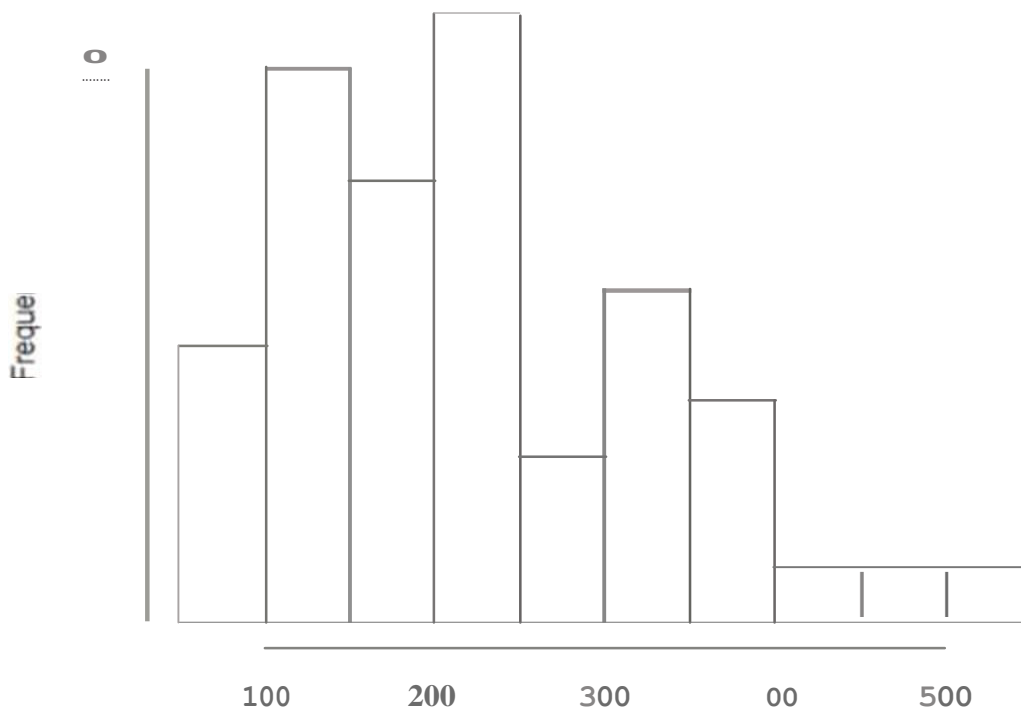


Figure 2 Histogram of number of Factor

The figure 2 shows the histogram of number of factors. In this figure 2 in the X axis shows the class and in Y axis shows the frequency. It has been seen that the maximum frequency has been occurred in the range of 200 to 300 and the highest frequency is more than 10. Similarly, the minimum frequency has been occurred in the range of 400 to 500 and the minimum frequency is less than 2. It is clear from this figure 2 that this histogram is normal or symmetric. It is good for this histogram that there is no outlier has been seen in this figure 2 of histogram.

Step-3

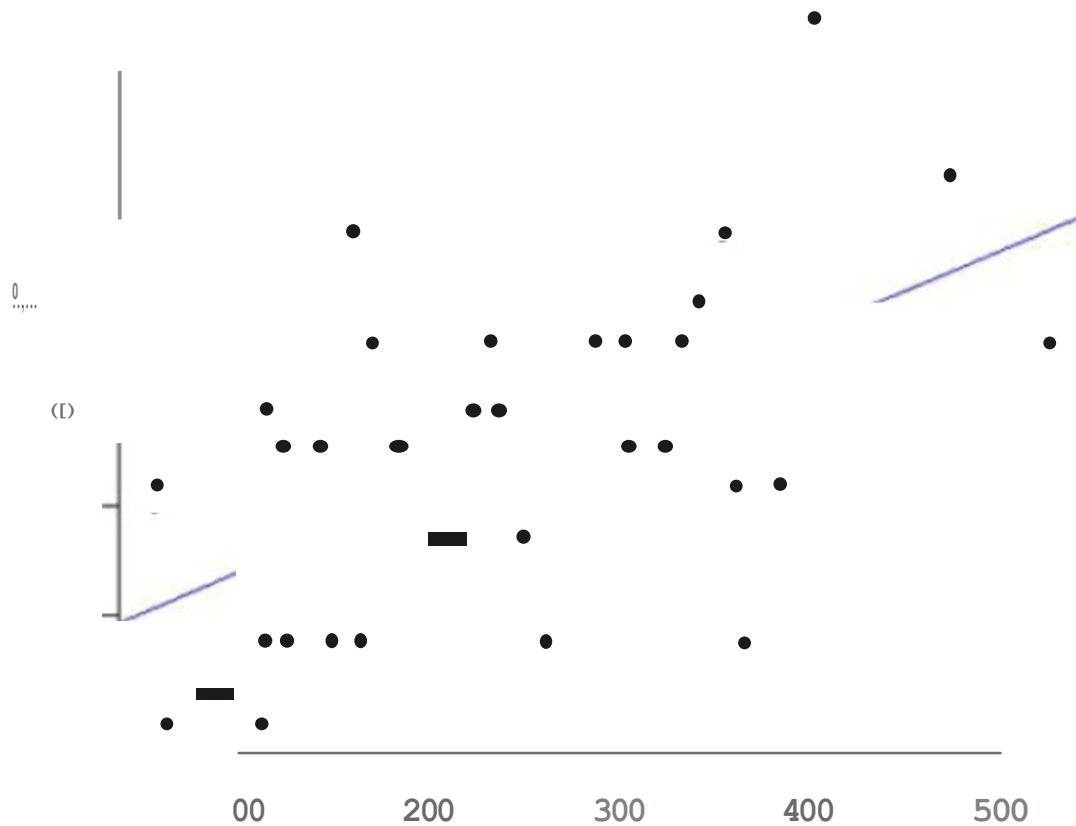


Figure 3 Scatter plot of Number of factors versus length of stay

The figure 3 shows the scatter plot of number of factors versus length of stay. In this figure 3 shows the relationship between two variables. In the x axis shows the number of factor and in the Y axis shows the length of stay. It has been seen that all the data points have been fallen close to the trend line. It indicates that there is a week positive relationship between two variable number of factor and length of stay.

Step-4 The linear correlation coefficient between the number of factor and length of stay is 0.4

coefficients:

	tstimate	Std. error	alue	Pr(> t)
(constant)	.53.38	33.316	1.602	0.116
y	25.351	4.33	5.356	.38e-06

signif. codes: 0 '0.001' • 0.0 '0.05' '0.1' 1

Residual standard error: 8.08 on 8 degrees of freedom
 Multiple R-squared: 0.34, Adjusted R-squared: 0.361
 F-statistic: 28.68 on 1 and 8 DF, p-value: 2.378e-06

Regression Output

Null hypothesis (H₀): The slope of the regression is equal to zero.

i.e. $\beta = 0$

Alternative hypothesis (H₁): The slope of the regression is not equal zero.

i.e.

P-Value = 0.000

Alpha = 0.05

It has been cleared that the P- value of this regression output is lesser than the alpha. Thus, the hypothesis may be rejected. Hence the hypothesis may be concluded that the slope of regression model is not equal to zero.

Step-6 The step-3, 4 and 5 has been concluded that the correlation between the numbers of factor versus length of stay is positive and the value of the correlation between two variable is 0.4. Moreover, the slope of the regression model is not equal to zero.

PART-2

Step-1

```
Mnm<- read.csv(file.choose())  
Mnm
```

Step- 2 The mean of weight in grams for peanut is 18.75

The standard deviation of the weight in grams for peanut 1.71

The five number summaries of the weight in grams for peanut are 17, 17.5, 18.5, 20 and 21.

Similarly, the mean of weight in grams for plain is 13.25

The standard deviation of the weight in grams for plain 1.26

The five number summaries of the weight in grams for plain are 12, 12.5, 13, 14 and 15.

ORDER NOW TO GET COMPLETE SOLUTION

Step-4

The figure 4 shows the box plot of weight in grams. In this figure, 1denote the peanut and 2 denote the plain. The five-number summary for box plot 1 that is peanut is higher than the five-number summary of plain. Moreover, there is no outlier has been seen for both of this box plot. The shape of the box plot 1and 2 is positively skewed or right skewed.

Step-5

The mean of the total number for peanut is 7.25

The standard deviation of the total number for peanut is 0.96

The five number summaries of the total number for peanut are 6, 6.5, 7.5, 8 and 8

Similarly, the mean of total number for plain is 14.25

The standard deviation of the total number for plain 1.26

The five number summaries of the total number for plain are 13, 13.5, 14, 15 and 16.

Step-6 ORDER NOW TO GET COMPLETE SOLUTION

Step-7

The figure 5 shows the box plot of total number. In this figure, 1denote the peanut and 2 denote the plain. The five-number summary for box plot 1that is peanut is lesser than the five-number summary of plain. Moreover, there is no outlier has been seen for both of this box plot. The shape of the box plot 1that is the total number of peanuts is negatively skewed and the box plo2 that is the total number of plains is positively skewed.

Bibliography

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