Methpani M.M.K

IT24100301

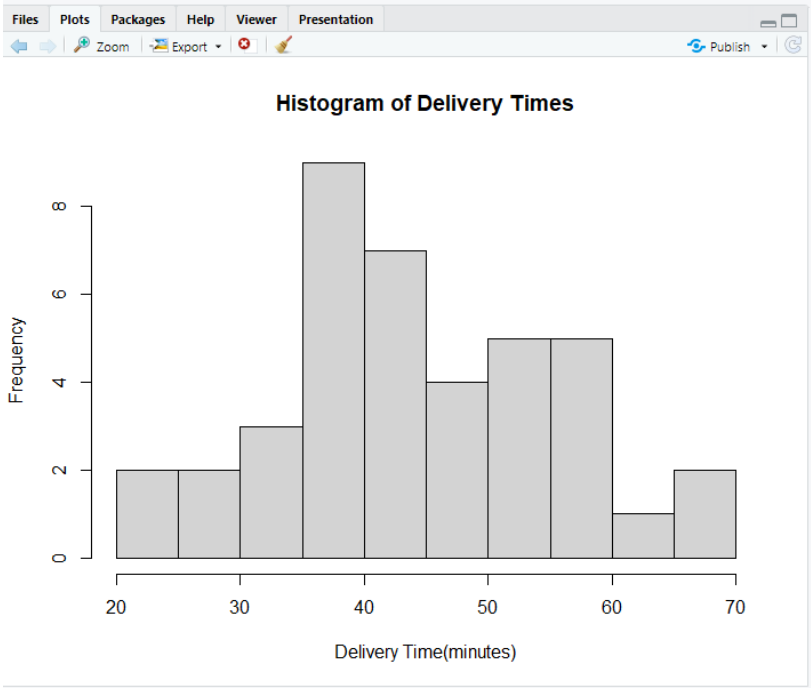
1. Import the dataset ('Exercise – Lab 05.txt') into R and store it in a data frame called "Delivery_Times".

```
> setwd("C:\\Users\\IT24100061\\Desktop\\IT24100061")
> Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE, sep=",")
> print(Delivery_Times)
```

	Delivery_Time_.minutes.
1	34
2	54
3	47
4	29
5	39
6	61
7	20
8	40
9	57
10	36
11	38
12	44
13	59
14	38
15	40
16	40
17	67
18	66
19	55
20	48
21	52
22	59
23	35
24	56
25	32
26	38
27	54
28	30
29	43
30	36
31	42
32	20
33	27
34	38
35	54
36	43
37	45
38	51
39	36
40	47

2. Draw a histogram for deliver times using nine class intervals where the lower limit is 20 and upper limit is 70. Use right open intervals.

```
hist(Delivery_Times$Delivery_Time,
     main = "Histogram of Delivery Times",
     xlab = "Delivery Time(minutes)",
     ylab = "Frequency",
     breaks=seq(20, 70, by=5),
     right=FALSE)
```



3. Comment on the shape of the distribution.

```
#The distribution seems to be right-skewed, with
#most delivery times concentrated between 20 and 40 minutes.
```

4. Draw a cumulative frequency polygon (ogive) for the data in a separate plot.

```
cum_freq <- cumsum(table(cut(Delivery_Times$Delivery_Time, breaks=seq(20, 70, by=5), right = FALSE)))
plot(seq(20, 65, by=5), cum_freq, type='o',
     main = "Cumulative Frequency Polygon(ogive) for Delivery Times",
     xlab="Delivery Time(minutes)",
     ylab="Cumulative Frequency",
     ylim=c(0, max(cum_freq)),
     pch=16)
```