

## IT24101759 – Wickramasinghe A.H

### Exercise

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

#Import the dataset

```
Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE, sep=",")  
print(Delivery_Times)
```

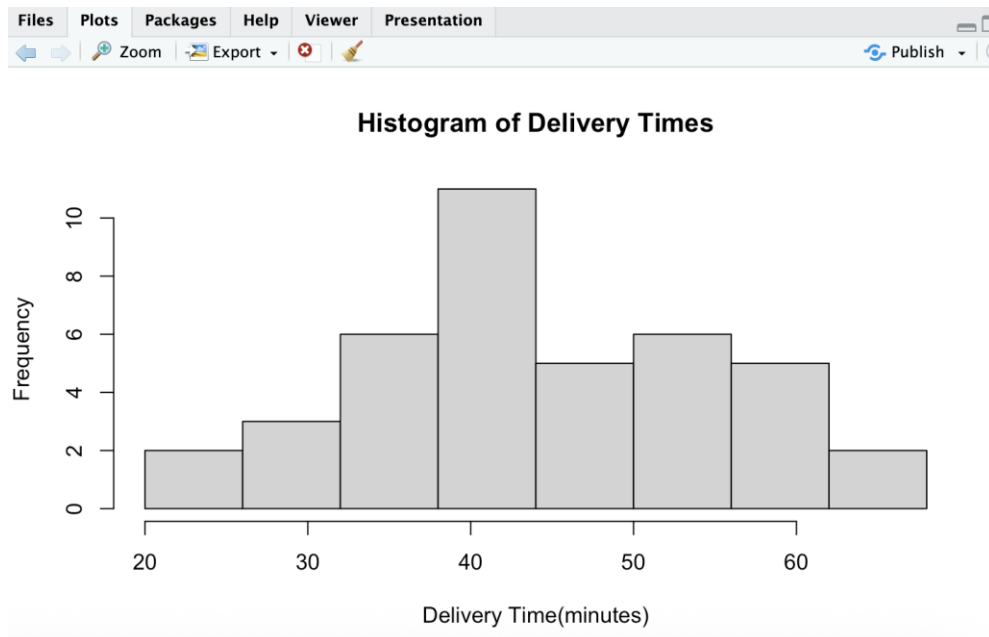
	Delivery_Time_.minutes.
1	34
2	54
3	47
4	29
5	39
6	61
7	20
8	40
9	57
10	36
11	38
12	44
13	59
14	38

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.

#02

#Draw a histogram

```
hist(Delivery_Times$Delivery_Time,  
     main = "Histogram of Delivery Times",  
     xlab = "Delivery Time(minutes)",  
     ylab = "Frequency",  
     breaks=seq(20, 70, by=6),  
     right=FALSE)
```



3. Comment on the shape of the distribution.

The distribution of delivery times is right-skewed, with the majority of delivery times falling between 30 and 45 minutes. A few higher values (above 50 minutes) extend the tail to the right.

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

```
#04
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)
```

