PS – IT2120

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Lab 5
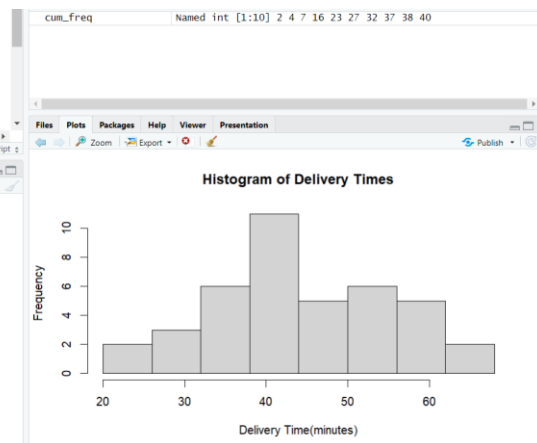
1.

```
2
3   #01
4   #Import the dataset
5   Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE, sep=",")
6   print(Delivery_Times)
7
```

Data	
● Delivery_Times	40 obs. of 1 variable
Values	
cum_freq	Named int [1:10] 2 4 7 16 23 27 32 37 38 40

2.

```
6   print(Delivery_Times)
7
8   #02
9   #Draw a histogram
10  hist(Delivery_Times$Delivery_Time,
11      main = "Histogram of Delivery Times",
12      xlab = "Delivery Time(minutes)",
13      ylab = "Frequency",
14      breaks=seq(20, 70, by=6),
15      right=FALSE)
16
```

```
> #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)
>
```


Histogram of Delivery Times

3.

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.

```
19
20  #04
21  cum_freq <- cumsum(table(cut(Delivery_Times$Delivery_Time, breaks=seq(20, 70, by=5), right =
22  plot(seq(20, 65, by=5), cum_freq, type='o',
23      main = "Cumulative Frequency Polygon(ogive) for Delivery Times",
24      xlab="Delivery Time(minutes)",
25      ylab="Cumulative Frequency",
26      ylim=c(0, max(cum_freq)),
27      pch=16)
28
```

```
> cum_freq <- cumsum(table(cut(Delivery_Times$Delivery_Time, breaks=seq(20, 70, by=5), right = FALS
E)))
> 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)
>
```


Cumulative Frequency Polygon(ogive) for Delivery Times