

Exercise:

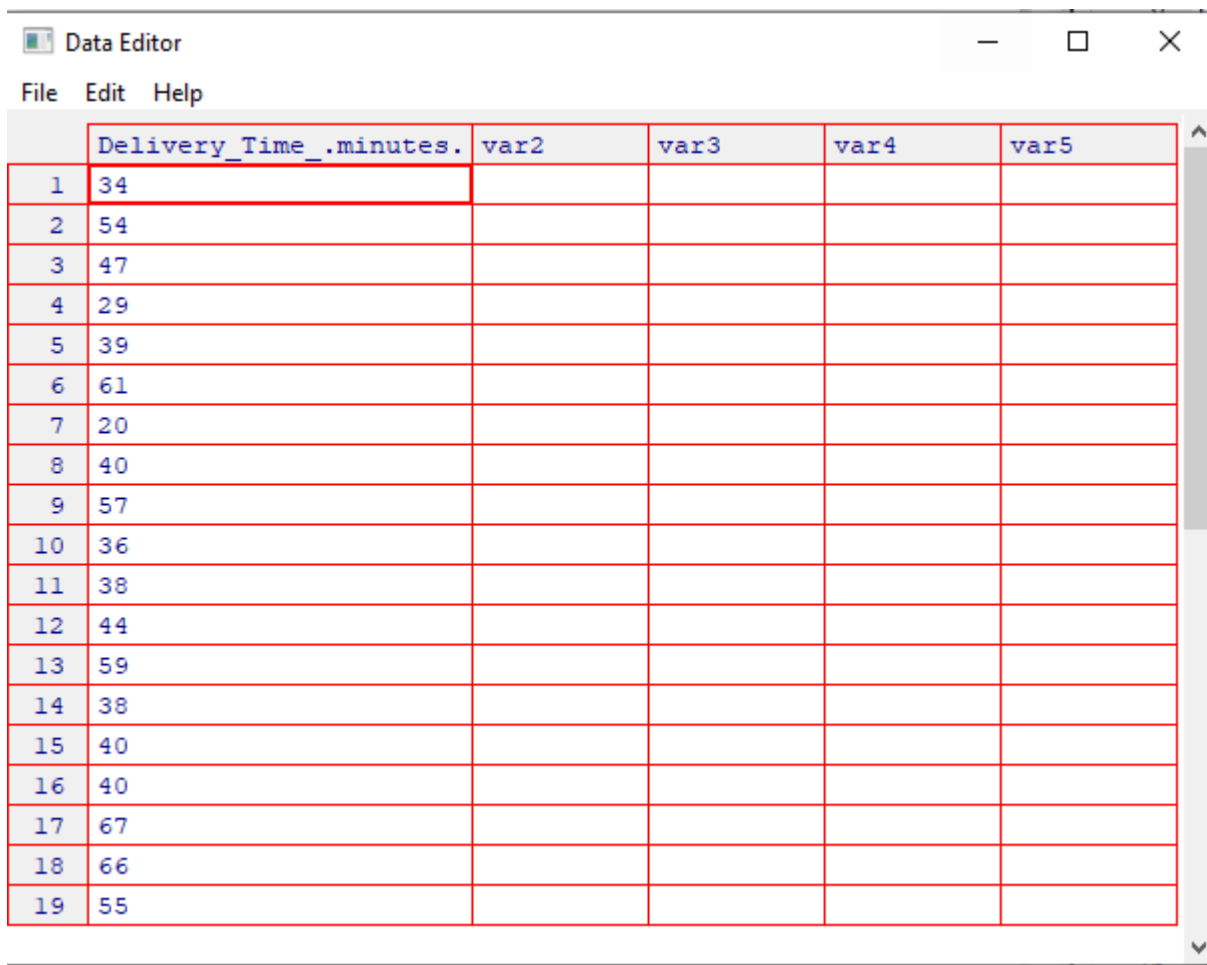
```
setwd("C:\\Users\\it24104383\\Desktop\\IT24104383\\Lab Sessions\\Lab 5")
getwd()

> setwd("C:\\Users\\it24104383\\Desktop\\IT24104383\\Lab Sessions\\Lab 5")
> getwd()
[1] "C:/Users/it24104383/Desktop/IT24104383/Lab Sessions/Lab 5"
```

1)

```
#1)
Delivery_Times <- read.table("Exercise - Lab 05.txt")
fix(Delivery_Times)

> Delivery_Times <- read.table("Exercise - Lab 05.txt")
> fix(Delivery_Times)
```



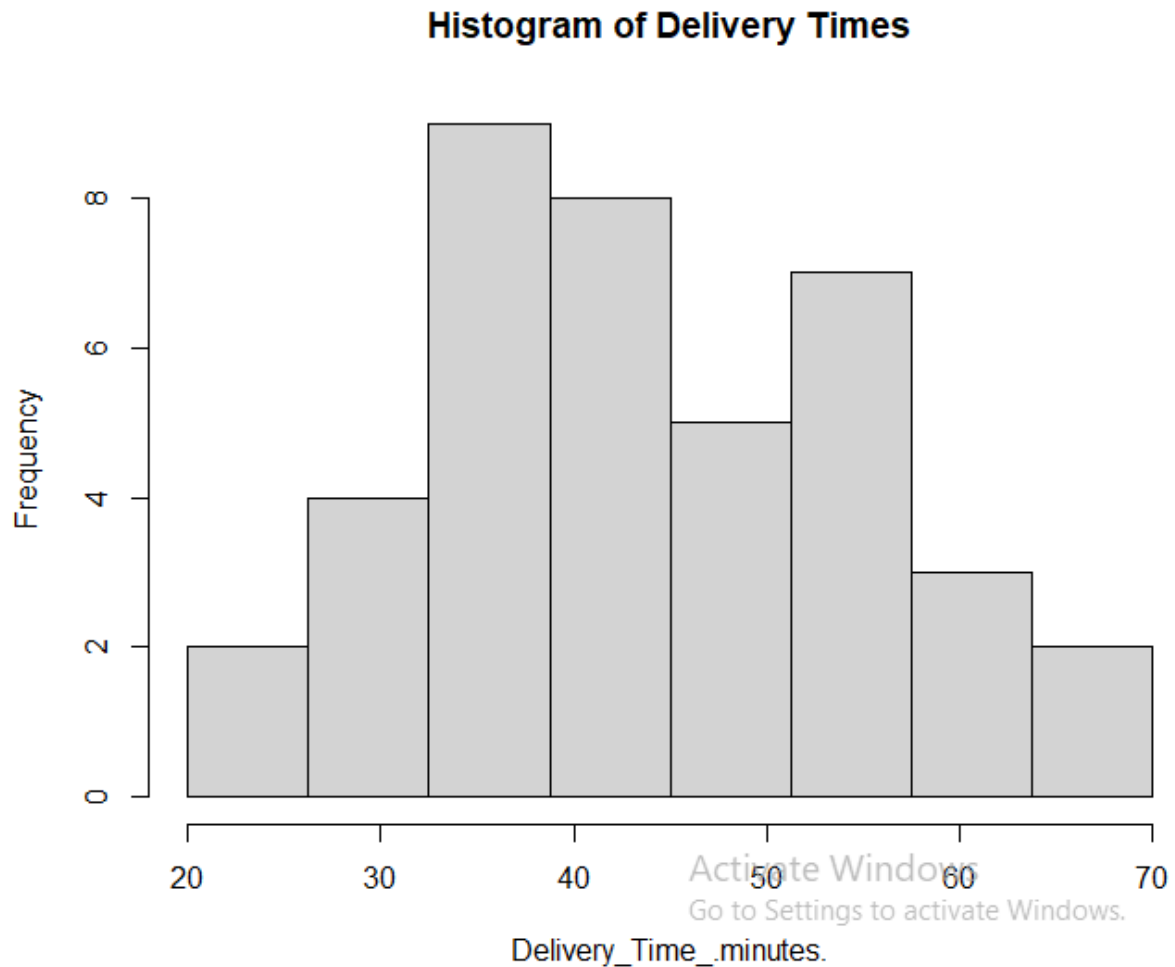
	Delivery_Time_.minutes.	var2	var3	var4	var5
1	34				
2	54				
3	47				
4	29				
5	39				
6	61				
7	20				
8	40				
9	57				
10	36				
11	38				
12	44				
13	59				
14	38				
15	40				
16	40				
17	67				
18	66				
19	55				

2)

```
freq <- histogram$counts  
breaks <- histogram$breaks  
cum.freq <- cumsum(freq)  
new <- c()
```

```
> freq <- histogram$counts  
> breaks <- histogram$breaks  
> cum.freq <- cumsum(freq)  
> new <- c()
```

```
#2)  
histogram <- hist(Delivery_Time_.minutes., main = "Histogram of Delivery Times", breaks = seq(20, 70, length = 9), right = FALSE)
```



3)

```
#3)  
#It's symmetric Distribution (slightly right-skewed)
```

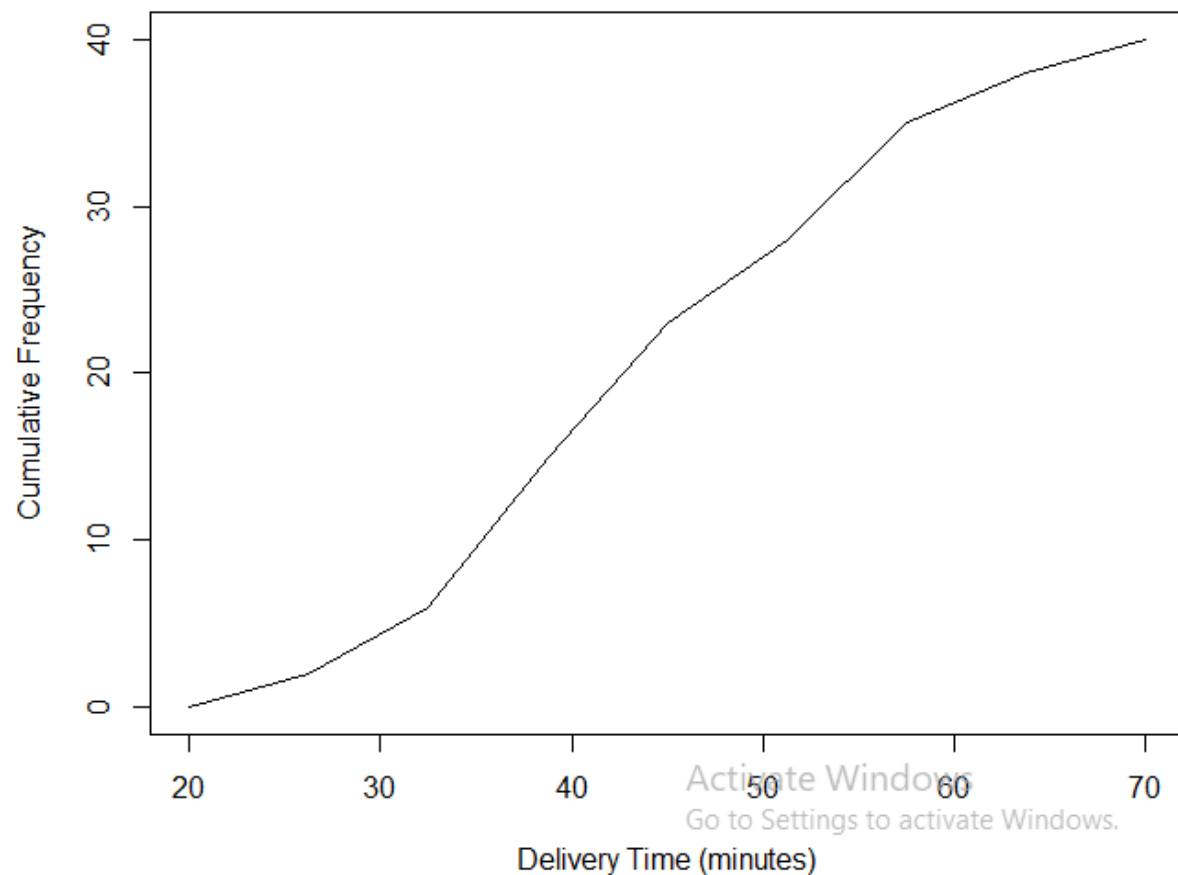
4)

```
#04)
for (i in 1:length(breaks)) {
  if (i==1) {
    new[i] <- 0
  } else{
    new[i] <- cum.freq[i-1]
  }
}

> for (i in 1:length(breaks)) {
+   if (i==1) {
+     new[i] <- 0
+   } else{
+     new[i] <- cum.freq[i-1]
+   }
+ }

plot(breaks, new, type = "l",
     main = "Cumulative Frequency Polygon (Ogive)",
     xlab = "Delivery Time (minutes)",
     ylab = "Cumulative Frequency",
     ylim = c(0, max(cum.freq)))
```

Cumulative Frequency Polygon (Ogive)



```
cbind(upper_Boundary = breaks, CumFreq = new)
> cbind(upper_Boundary = breaks, CumFreq = new)
      upper_Boundary CumFreq
[1,]          20.00         0
[2,]          26.25         2
[3,]          32.50         6
[4,]          38.75        15
[5,]          45.00        23
[6,]          51.25        28
[7,]          57.50        35
[8,]          63.75        38
[9,]          70.00        40
> |
```