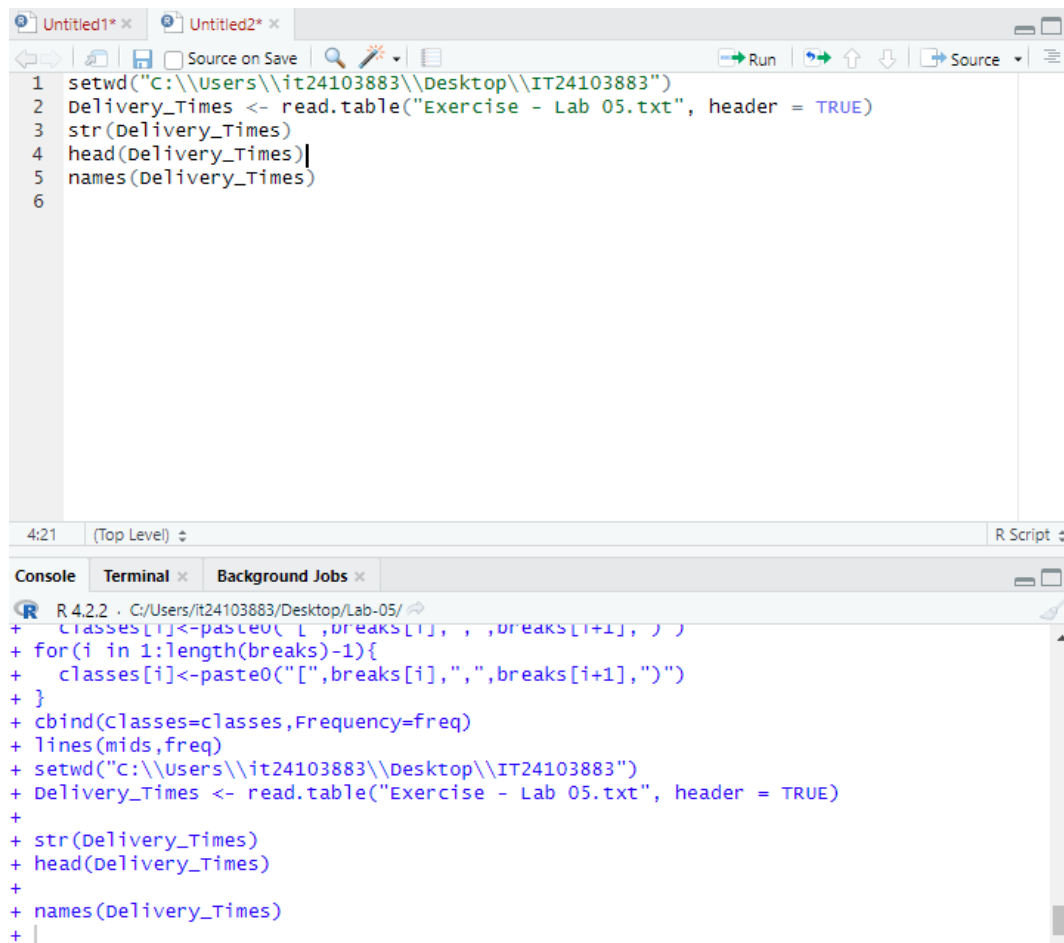


## Lab Sheet 5



The screenshot shows the R Studio environment. The top pane contains a script editor with the following code:

```
1 setwd("C:\\Users\\it24103883\\Desktop\\IT24103883")
2 Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE)
3 str(Delivery_Times)
4 head(Delivery_Times)
5 names(Delivery_Times)
6
```

The bottom pane shows the console window with the following output:

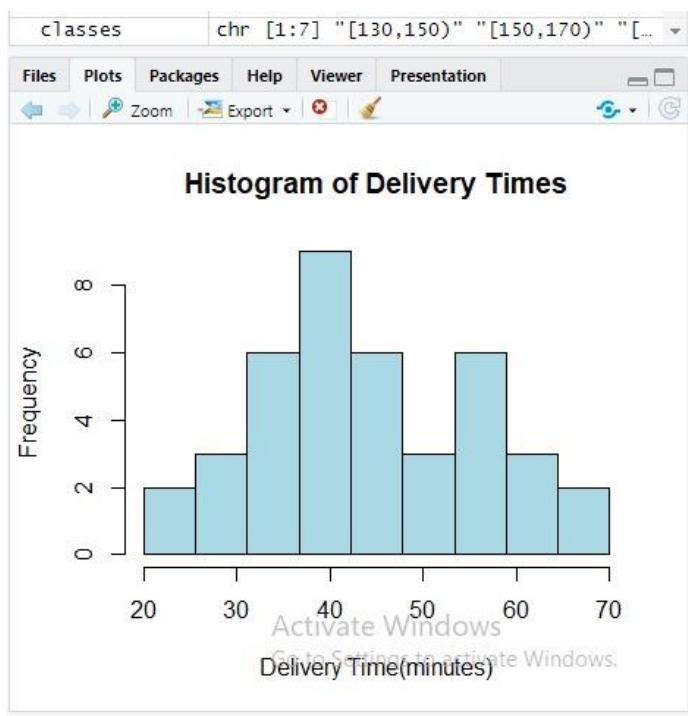
```
R 4.2.2 . C:/Users/it24103883/Desktop/Lab-05/
+ classes[i]<-paste0( ,breaks[i], ,breaks[i+1], )
+ for(i in 1:length(breaks)-1){
+   classes[i]<-paste0("[",breaks[i],",",breaks[i+1],")")
+ }
+ cbind(classes=classes,Frequency=freq)
+ lines(mids,freq)
+ setwd("C:\\Users\\it24103883\\Desktop\\IT24103883")
+ Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE)
+
+ str(Delivery_Times)
+ head(Delivery_Times)
+
+ names(Delivery_Times)
+ |
```

```
Untitled1* x  Untitled2* x
Source on Save  Run  Source
1 setwd("C:\\Users\\it24103883\\Desktop\\IT24103883")
2 Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE)
3 str(Delivery_Times)
4 head(Delivery_Times)
5 names(Delivery_Times)
6 # Define break points for the bins
7 breaks <- seq(20, 70, length.out = 10) # 9 intervals means 10 break points
8
9 hist(Delivery_Times$Delivery_Time_.minutes.,
10      breaks = breaks,
11      right = FALSE, # right open intervals means intervals are like [a, b)
12      col = "lightblue",
13      main = "Histogram of Delivery Times",
14      xlab = "Delivery Time(minutes)",
15      ylab = "Frequency")

6:1 (Top Level)  R Script
```

Console Terminal Background Jobs

```
R 4.2.2 - C:/Users/it24103883/Desktop/Lab-05/
+ main = "Histogram of Delivery Times",
+ xlab = "Delivery Time(minutes)",
+ ylab = "Frequency")
+ # Define break points for the bins
+ breaks <- seq(20, 70, length.out = 10) # 9 intervals means 10 break points
+ hist(Delivery_Times$Delivery_Time_.minutes.,
+      breaks = breaks,
+      right = FALSE, # right open intervals means intervals are like [a, b)
+      col = "lightblue",
+      main = "Histogram of Delivery Times",
+      xlab = "Delivery Time(minutes)",
+      ylab = "Frequency")
+ |
```



```
Untitled1* x  Untitled2* x  Untitled3* x
Source on Save  Run  Source
1 setwd("C:\\Users\\it24103883\\Desktop\\IT24103883")
2 Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE)
3 str(Delivery_Times)
4 head(Delivery_Times)
5 names(Delivery_Times)
6 # Define break points for the bins
7 breaks <- seq(20, 70, length.out = 10) # 9 intervals means 10 break points
8
9 hist(Delivery_Times$Delivery_Time_.minutes.,
10      breaks = breaks,
11      right = FALSE, # right open intervals means intervals are like [a, b)
12      col = "lightblue",
13      main = "Histogram of Delivery Times",
14      xlab = "Delivery Time(minutes)",
15      ylab = "Frequency")
16 #Calculate cumulative frequencies
17 cum_freq <- cumsum(freq_table$counts)

17:1 (Top Level)  R Script
Console  Terminal x  Background Jobs x
R 4.2.2 - C:/Users/it24103883/Desktop/Lab-05/
- main = Histogram of Delivery Times ,
- xlab = "Delivery Time(minutes)",
- ylab = "Frequency")
- breaks <- seq(20, 70, length.out = 10) # 9 intervals means 10 break points
-
- hist(Delivery_Times$Delivery_Time_.minutes.,
-      breaks = breaks,
-      right = FALSE, # right open intervals means intervals are like [a, b)
-      col = "lightblue",
-      main = "Histogram of Delivery Times",
-      xlab = "Delivery Time(minutes)",
-      ylab = "Frequency")
- cum_freq <- cumsum(freq_table$counts)
- |
```

Untitled1\* ×  
Untitled2\* ×  
Untitled3\* ×

Source on Save  
Run  
Source

```
4 head(Delivery_Times)
5 names(Delivery_Times)
6 # Define break points for the bins
7 breaks <- seq(20, 70, length.out = 10) # 9 intervals means 10 break points
8
9 hist(Delivery_Times$Delivery_Time_.minutes.,
10      breaks = breaks,
11      right = FALSE, # right open intervals means intervals are like [a, b)
12      col = "lightblue",
13      main = "Histogram of Delivery Times",
14      xlab = "Delivery Time(minutes)",
15      ylab = "Frequency")
16 #calculate cumulative frequencies
17 cum_freq <- cumsum(freq_table$counts)
18 # Plot the cumulative frequency polygon (ogive)
19 plot(freq_table$breaks[-1], cum_freq, type = "o", col = "red",
20      main = "Cumulative Frequency Polygon (ogive)",
21      xlab = "Delivery Time (minutes)",
22      ylab = "Cumulative Frequency")
```

22:36 (Top Level) R Script

Console Terminal Background Jobs

R 4.2.2 · C:/Users/it24103883/Desktop/Lab-05/

```
+ xlab = "Delivery Time(minutes)",
+ ylab = "Frequency")
+ cum_freq <- cumsum(freq_table$counts)
+ # Plot the cumulative frequency polygon (ogive)
+ plot(freq_table$breaks[-1], cum_freq, type = "o", col = "blue",
+      main = "Cumulative Frequency Polygon (ogive)",
+      xlab = "Delivery Time (minutes)",
+      ylab = "Cumulative Frequency")
+ # Plot the cumulative frequency polygon (ogive)
+ plot(freq_table$breaks[-1], cum_freq, type = "o", col = "red",
+      main = "Cumulative Frequency Polygon (ogive)",
+      xlab = "Delivery Time (minutes)",
+      ylab = "Cumulative Frequency")
+ 
```

values	
breaks	num [1:10] 20 25.6 31.1 36.7 42.2 ...
classes	chr [1:7] "[130,150)" "[150,170)" "[170,190)" "[190,210)" "[210,230)" "[230,250)" "[250,270)"

Files
Plots
Packages
Help
Viewer
Presentation

Zoom
Export

