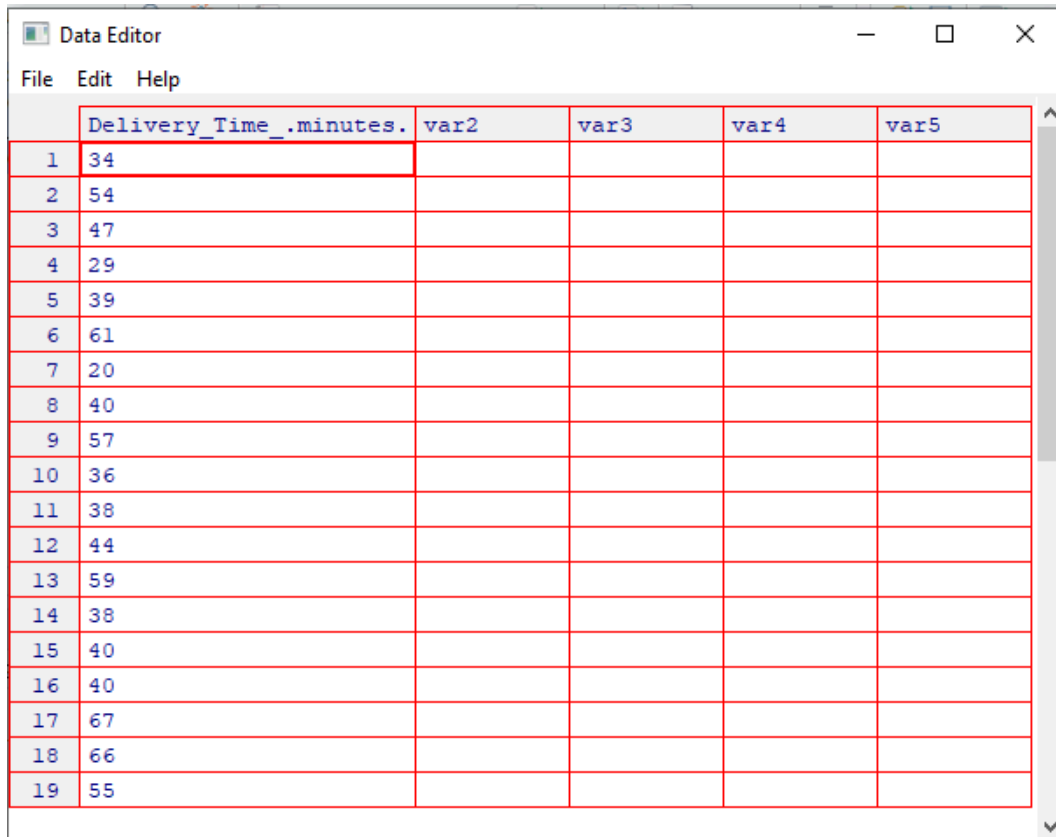


IT24103037

Lab 05

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

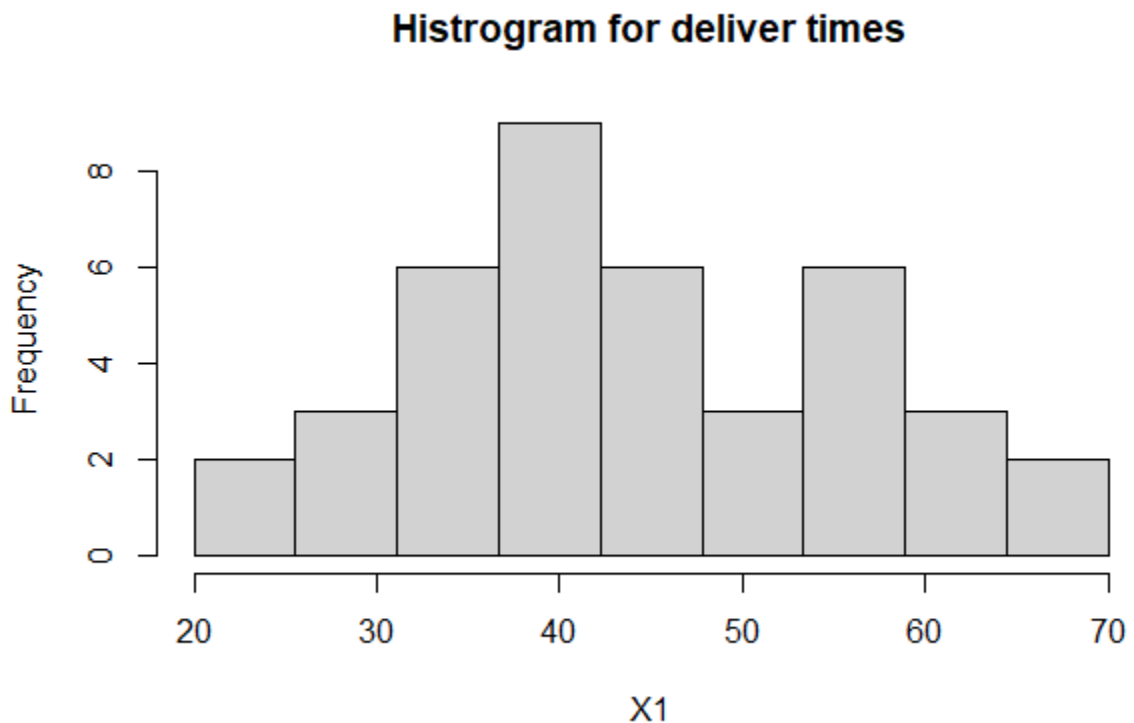


	Delivery_Time_.minutes.	var2	var3	var4	var5
1	34				
2	54				
3	47				
4	29				
5	39				
6	61				
7	20				
8	40				
9	57				
10	36				
11	38				
12	44				
13	59				
14	38				
15	40				
16	40				
17	67				
18	66				
19	55				

```
> setwd("C:\\Users\\IT24103080\\Desktop\\IT24103080")
> Delivery_Times<-read.table("Exercise - Lab 05.txt",header=TRUE)
> fix(Delivery_Times)
> attach(Delivery_Times)
```

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.

```
> #Q2
> names(Delivery_Times)<-c("X1")
> attach(Delivery_Times)
> hist(x1,main = "Histogram for deliver times")
> histogram<-hist(x1,main = "Histogram for deliver times",breaks = seq(20,70,length=10),right=FALSE)
>
```



Environment	History	Connections	Tutorial
R Global Environment			
Data			
Delivery_Times	40 obs. of 1 variable		
histogram	List of 6		

3. Comment on the shape of the distribution.

The histogram shows a **uniform distribution**, where the frequencies across the delivery times are fairly evenly spread out across the intervals, with no clear peaks or skewness.

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

```
> #Q4
> breaks <- round(histogram$breaks)
> freq <- histogram$counts
> mids <- histogram$mids
>
> cum.freq <- cumsum(freq)
>
> new<-c()
>
> 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 for Deliver Times",
+       xlab="Deliver Times",ylab = "Cumulative Frequency",ylim=c(0,max(cum.freq)))
> cbind(Upper=breaks,CumFreq = new)
      Upper CumFreq
[1,]    130      0
[2,]    146      4
[3,]    161     10
[4,]    177     16
[5,]    192     17
[6,]    208     22
[7,]    223     25
[8,]    239     26
[9,]    254     29
[10,]   270     32
> histogram<-hist(x1,main = "Histogram for deliver times",breaks = seq(20,70,length=10
),right=FALSE)
```

