IT24100881

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

```
Data
Odelivery
Values
breaks_times
num [1:10] 20 25.6 31.1 36.7 42.2 ...
times
num [1:18] 25 30 45 50 60 35 40 55 50 45 ...
```

```
#import dataset

delivery<-read.table("Exercise - Lab 05.txt", header=TRUE)

times <- delivery$Delivery_Time_.minutes.

#Histogram with 9 classes 20-70, right open intervals

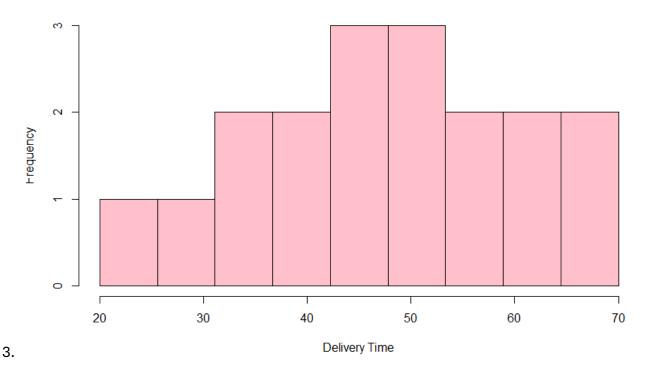
times <- c(25, 30, 45, 50, 60, 35, 40, 55, 50, 45, 65, 50, 70, 60, 55, 40, 35, 45)

breaks_times = seq(20, 70, length.out = 10)

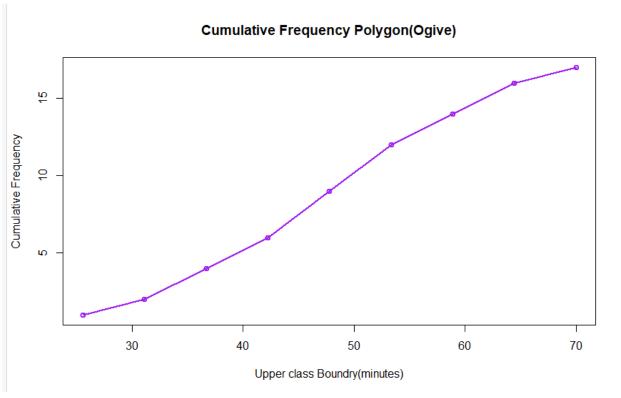
hist(times,
    breaks = breaks_times,
    right = FALSE,
    main = "Histogram of Delivery Times",
    xlab = "Delivery Time",
    col = "pink",
    border = "black")</pre>
```

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.

Histogram of Delivery Times



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



```
> delivery<-read.table("Exercise - Lab 05.txt", header=TRUE)
Error in file(file, "rt") : cannot open the connection</pre>
In addition: Warning message:
In file(file, "rt"):
    cannot open file 'Exercise - Lab 05.txt': No such file or directory
> setwd("C:\\users\\IT24100881\\Downloads\\New folder")
> delivery<-read.table("Exercise - Lab 05.txt", header=TRUE)
> times <- delivery$Delivery_Time_.minutes.
> times <- c(25, 30, 45, 50, 60, 35, 40, 55, 50, 45, 65, 50, 70, 60, 55, 40, 35, 45)
> breaks_times = seq(20, 70, length.out = 10)
> hist(times,
           breaks = breaks_times,
           right = FALSE,
          right = FALSE,
main = "Histogram of Delivery Times",
xlab = "Delivery Time",
col = "pink",
border = "black")
> freq_times<-table(cut(times,
                                   breaks=breaks_times,
                                      right=FALSE))
> freq_times
   [20,25.6) [25.6,31.1) [31.1,36.7) [36.7,42.2) [42.2,47.8) [47.8,53.3) [53.3,58.9) [58.9,64.4) 1 2 2 3 3 3 2 2
> cum_freq_times<- cumsum(as.numeric(freq_times))</pre>
> cum_freq_timese cumsum(as.numerrc(freq_times))
> plot(breaks_times[-1],cum_freq_times,type="o",main="Cumulative Frequency Polygon(Ogive)",
+ xlab="Upper class Boundry(minutes)",
+ ylab="Cumulative Frequency",
+ col="purple",
+ 1wd=2)
```