IT24103913

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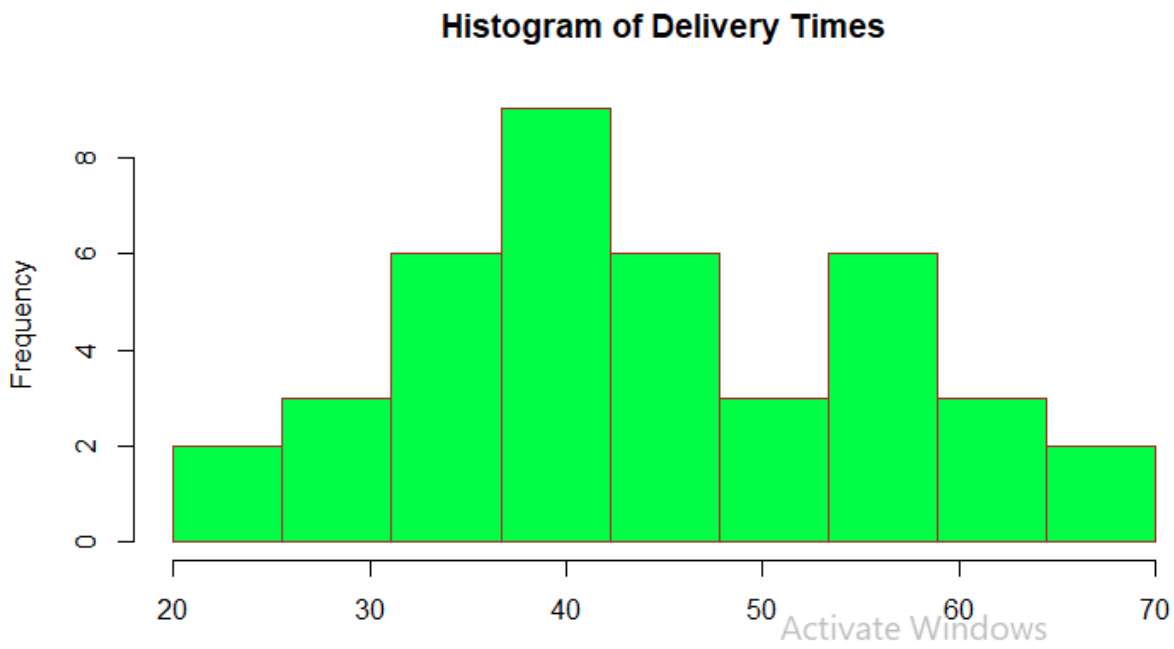
IT2120 - Probability and Statistics

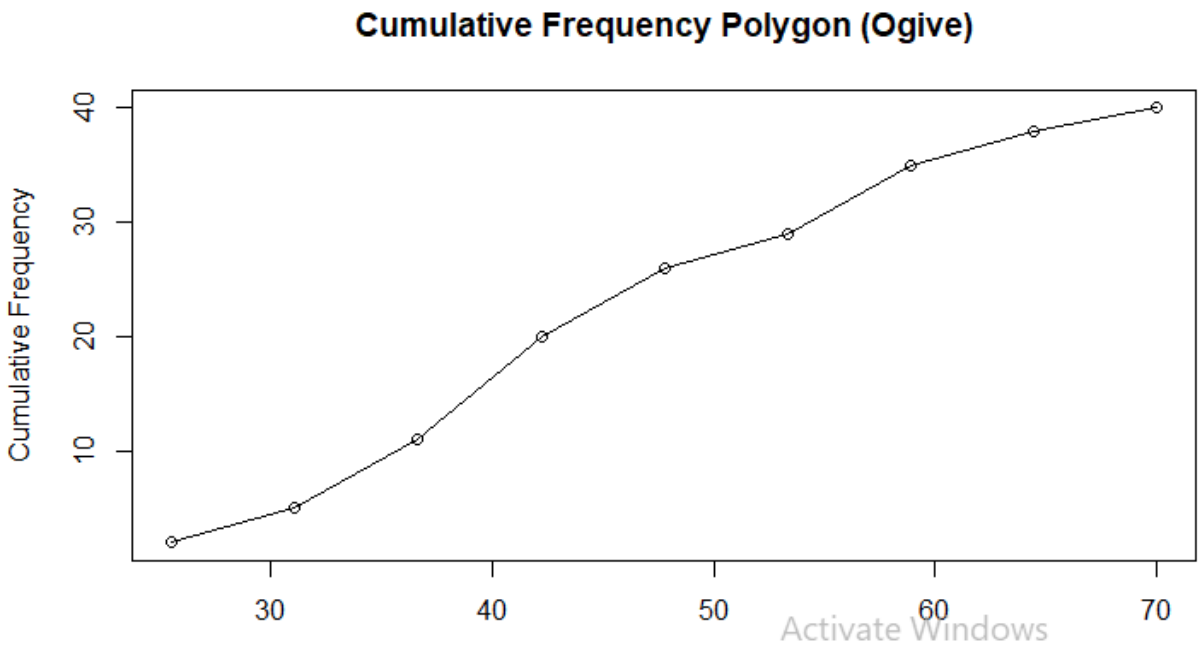
Lab sheet – 05

Exercise 2

```
> setwd("C:\\Users\\it24103913\\Desktop\\IT24103913")
> Delivery_Times <- read.table("Exercise - Lab 05.txt", header = TRUE)
> colnames(Delivery_Times) <- "Delivery_Time"
> head(Delivery_Times)
  Delivery_Time
1            34
2            54
3            47
4            29
5            39
6            61
> str(Delivery_Times)
'data.frame':   40 obs. of  1 variable:
 $ Delivery_Time: int  34 54 47 29 39 61 20 40 57 36 ...
> breaks <- seq(20, 70, length.out = 10)
> hist(Delivery_Times$Delivery_Time,
+      breaks = breaks,
+      right = TRUE,
+      main = "Histogram of Delivery Times",
+      xlab = "Delivery Time",
+      ylab = "Frequency",
+      col = "green",
+      border = "brown")
>
```




```
> hist_data <- hist(Delivery_Times$Delivery_Time,
+                   breaks = breaks,
+                   right = TRUE,
+                   plot = FALSE)
> cumulative_freq <- cumsum(hist_data$counts)
> upper_bound <- hist_data$breaks[-1]
> plot(upper_bound, cumulative_freq, type = "o",
+      main = "Cumulative Frequency Polygon (Ogive)",
+      xlab = "Delivery Time",
+      ylab = "Cumulative Frequency",
+      col = "black")
>
```


Cumulative Frequency Polygon (Ogive)
Cumulative Frequency
10
20
30
40
30
40
50
60
70
Activate Windows