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Module- PS

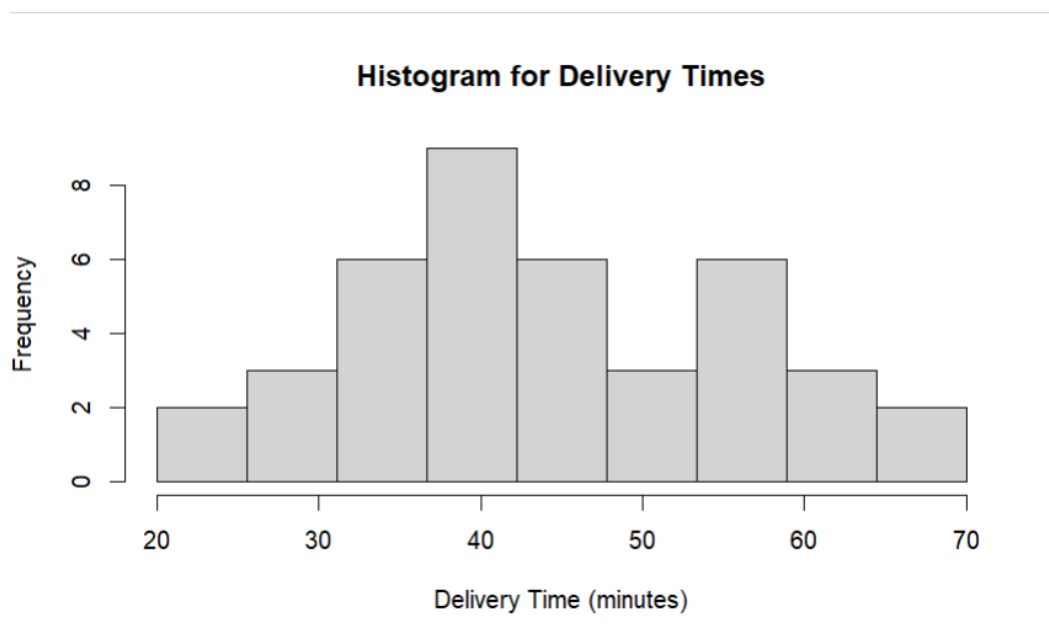
Exercise

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

```
> setwd("C:\\Users\\user\\Desktop\\IT24103493")  
> Delivery_Times<-read.table("Exercise- Lab 05.txt",header=TRUE,sep=",")
```

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

```
> attach(Delivery_Times)  
> names(Delivery_Times)<-c("X1")  
> histogram<-hist(X1,main="Histogram for Delivery Times"  
+ ,breaks = seq(20, 70, length = 10), right = FALSE  
+ ,xlab = "Delivery Time (minutes)", ylab = "Frequency")
```



3. Comment on the shape of the distribution

#The distribution appears to be roughly symmetric around the center

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

```
> h <- hist(X1, breaks = seq(20, 70, length = 10), right = FALSE, plot = FALSE)
> freq <- h$counts
> cum_freq <- cumsum(freq)
> breaks <- h$breaks
> new <- numeric(length(breaks))
> new[1] <- 0
> for (i in 2:length(breaks)) {
+   new[i] <- cum_freq[i - 1]
+ }
> plot(breaks, new, type = "o", main = "Cumulative Frequency Polygon (Ogive) for Delivery Times",
+ xlab = "Delivery Time (minutes)", ylab = "Cumulative Frequency", ylim = c(0, max(cum_freq)))
```

