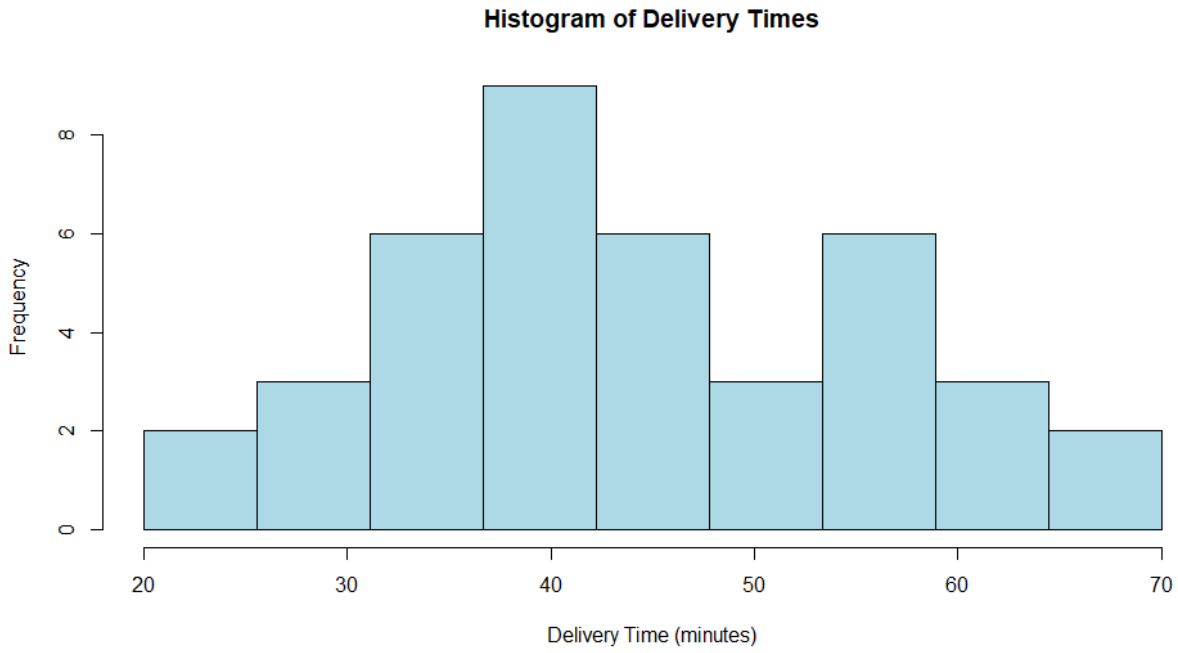
1. Import the dataset (’Exercise – Lab 05.txt’) into R and store it in a data frame called ”Delivery Times”.

```
> 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.

```
> Delivery_Times$Deliver_Times <- as.numeric(Delivery_Times$Deliver_Times)
> #2
> hist(Delivery_Times$Deliver_Times,
+      breaks = seq(20, 70, length.out = 10),
+      right = FALSE,
+      main = "Histogram of Delivery Times",
+      xlab = "Delivery Time (minutes)",
+      col = "lightblue")
> |
```



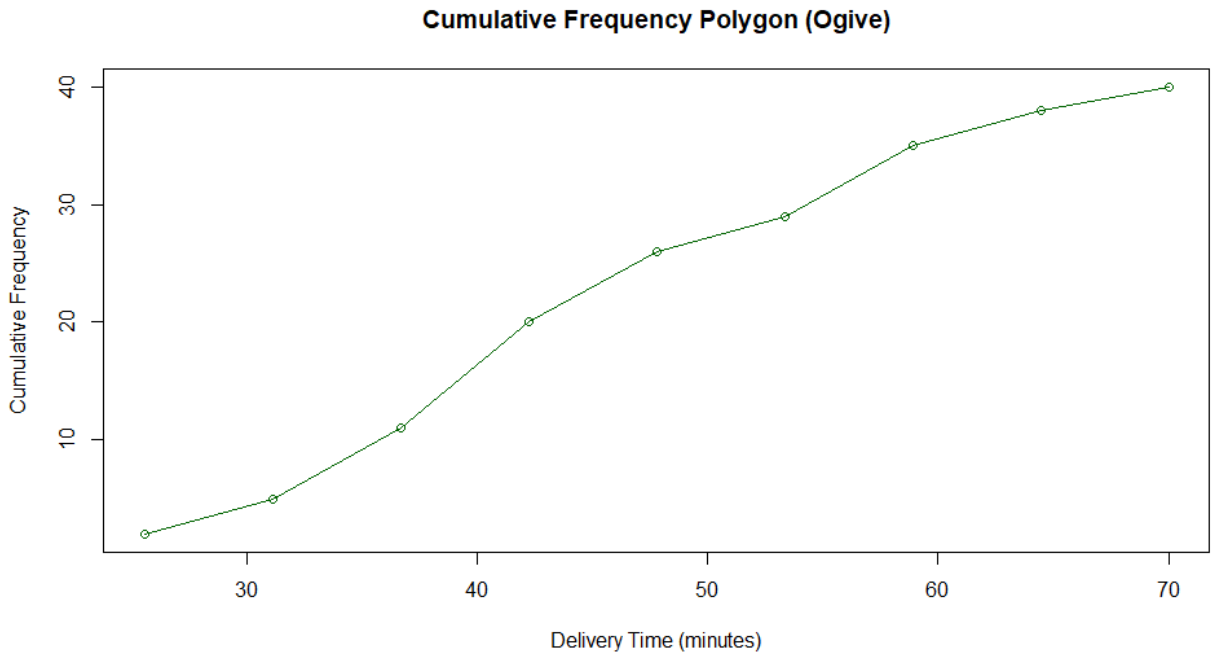
3. Comment on the shape of the distribution.

```
> summary(Delivery_Times$Deliver_Times)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  20.00   36.00   42.50   43.75   54.00   67.00
>
```

The histogram of delivery times shows a right-skewed distribution, with most delivery times clustered toward the lower end (closer to 20) and fewer data points extending towards the higher end (closer to 70). This suggests that the majority of deliveries are completed in a shorter amount of time.

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

```
> #4
> hist_data <- hist(Delivery_Times$Deliver_Times,
+                   breaks = seq(20, 70, length.out = 10),
+                   right = FALSE,
+                   plot = FALSE)
>
> cum_freq <- cumsum(hist_data$counts)
>
> plot(hist_data$breaks[-1], cum_freq,
+      type = "o",
+      main = "Cumulative Frequency Polygon (Ogive)",
+      xlab = "Delivery Time (minutes)",
+      ylab = "Cumulative Frequency",
+      col = "darkgreen")
>
```


Cumulative Frequency Polygon (Ogive)
Cumulative Frequency
10
20
30
40
30
40
50
60
70
Delivery Time (minutes)