



IT2120

Probability and Statistics

Year 2 – Semester 1

Lab Report - 05

Submitted to
Sri Lanka Institute of Information Technology

In partial fulfillment of the requirements for the
Bachelor of Science Special Honors Degree in Information Technology

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Declaration

I certify that this report does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in text.

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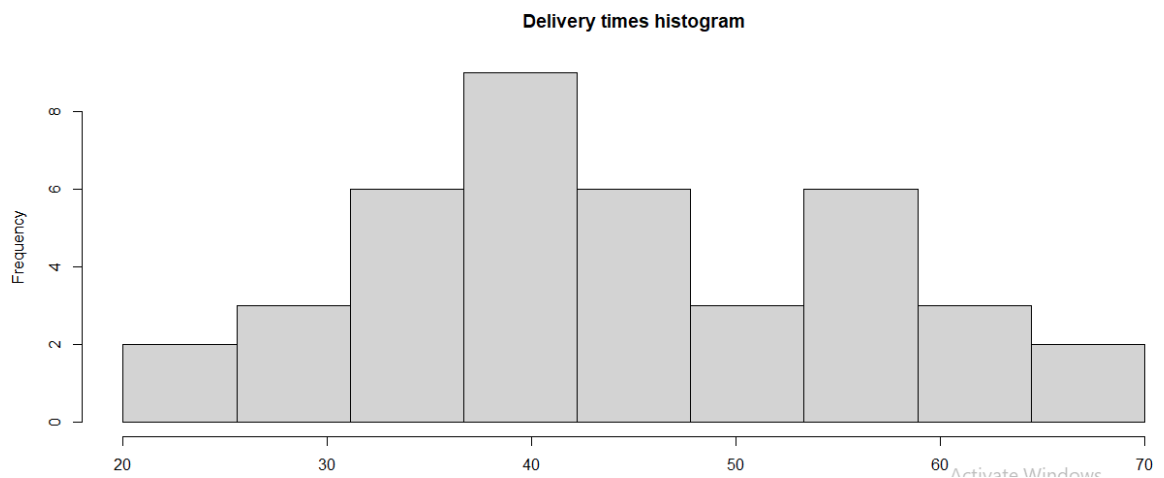
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- 1) Import the dataset ('Exercise – Lab 05.txt') into R and store it in a data frame called "Delivery Times".

```
#Question 1#  
Delivery_Times <- read.table("Exercise.txt", header = TRUE)  
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.

```
#Question 2#  
Histogram <- hist(Delivery_Time_.minutes., main="Delivery times histogram",  
breaks = seq(20, 70, length=10), right=TRUE)
```



- 3) Comment on the shape of the distribution.

It's a bit skewed to the right (positive skew). Most deliveries are done between 30 – 40 minutes.

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

```
#Question 4#  
cum_freq <- cumsum(Histogram$counts)  
plot(Histogram$mids, cum_freq, type="o", main = "Cumulative Delivery times polygon",  
      xlab="Times", ylab="Cumulative Frequency", ylim = c(0, max(cum_freq)))
```

