Sri Lanka Institute of Information Technology

Lab Submission Worksheet
No-05

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Probability and Statistics - IT2120

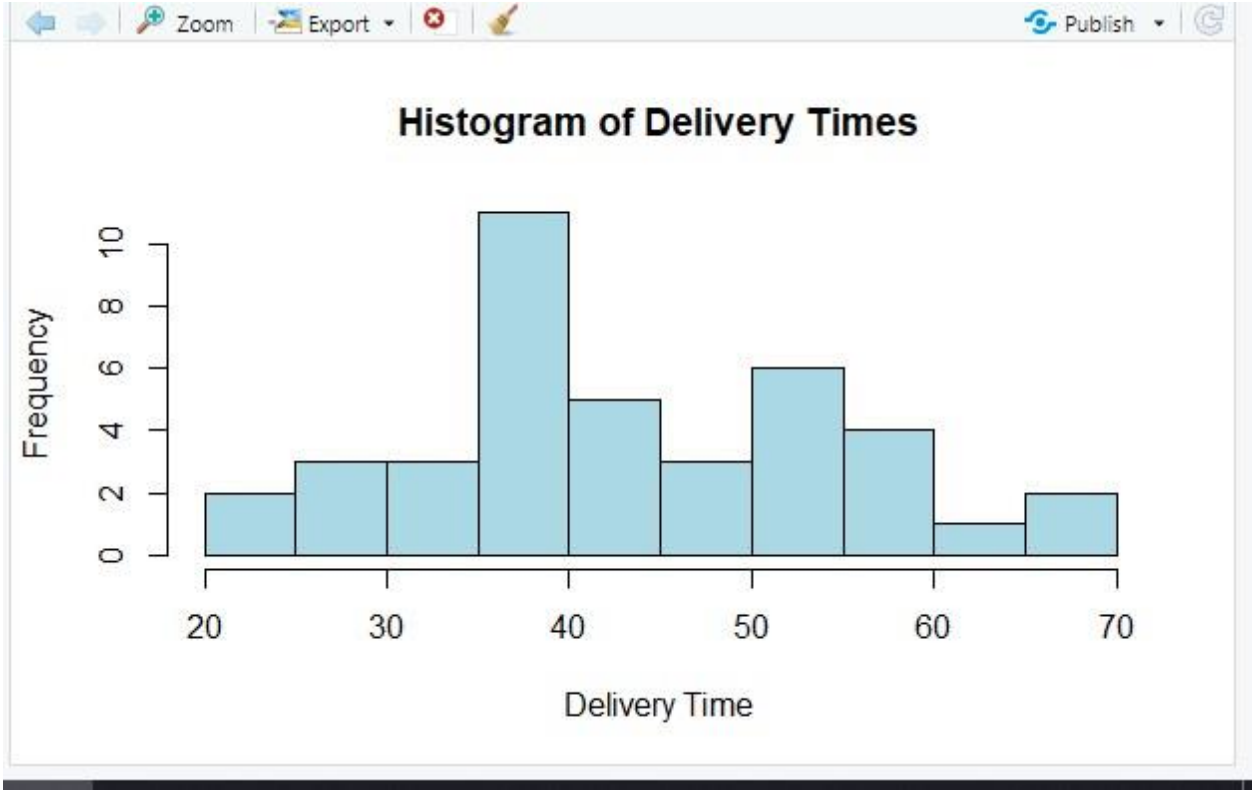
B.Sc. (Hons) in Information Technology

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

```
> Delivery_Times$Delivery_Time_.minutes. <- as.numeric(Delivery_Times$Delivery_Time_.minu
tes.)
>
> hist(Delivery_Times$Delivery_Time_.minutes.,
+      breaks = seq(20, 70, by = 5),
+      right = TRUE,
+      col = "lightblue",
+      main = "Histogram of Delivery Times",
+      xlab = "Delivery Time",
+      ylab = "Frequency")
>
>
> 
```

Data
De
Value
cf

Files




```
> #The histogram of delivery times displays a slightly right-skewed distribution, indicat
ing that most deliveries occur within the lower time intervals (between 20 and 40 minute
s), while fewer deliveries take longer. The frequency gradually decreases as delivery tim
e increases, suggesting that longer delivery times are less common. This pattern is typic
al in service-related data, where efficiency is prioritized but occasional delays may occ
ur.
> 
```

Cumulative f

```
>
>
> cf <- cumsum(table(cut(Delivery_Times$Delivery_Time_.minutes.,breaks = seq(20, 70, by =
5), right = TRUE)))
>
> plot(seq(22.5, 67.5, by = 5), cf, type = "o", col = "blue",
+      xlab = "Delivery Time", ylab = "Cumulative Frequency",
+      main = "Cumulative Frequency Polygon (Ogive)")
>
>
```

Files

Frequency