

IT24103096

PS Lab -05

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% Lab 05 Exercise
% Replace ITxxxxxx with your own registration number
% -----

% 1. Import the dataset into R
setwd("C://Users//HP/Desktop//IT24103096") # <-- change path to your fold
delivery_times <- read.table("Exercise_Lab_05.txt", header = TRUE)

% Check the first few rows
head(delivery_times)

% -----

% 2. Histogram for delivery times
% -----

% Extract the Delivery Times column (assuming the column is named "Delivery
times <- delivery_times$Delivery_Times

% Define class intervals (20 to 70, 9 intervals -> width = 50/9 ≈ 5.56 ~ 6)
otimes <- delivery_times$Delivery_Times

% Draw histogram
hist(times,
```

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hist(times,
      breaks = breaks,
      right = FALSE,      # right-open intervals
      col = "skyblue",
      xlab = "Delivery Times",
      main = "Histogram of Delivery Times")

# -----
# 3. Comment on shape
# -----
# After plotting, look at the histogram.
# If bars are higher in the middle → approx normal.
# If longer tail on right → positively skewed.
# If longer tail on left → negatively skewed.

# -----
# 4. Cumulative frequency polygon (ogive)
# -----

# Get frequency table using same breaks
freq <- hist(times, breaks = breaks, right = FALSE, plot = FALSE)

# Compute cumulative frequencies
cum_freq <- cumsum(freq$counts)

# -----
# 4. Cumulative frequency polygon (ogive)
# -----

# Get frequency table using same breaks
freq <- hist(times, breaks = breaks, right = FALSE, plot = FALSE)

# Compute cumulative frequencies
cum_freq <- cumsum(freq$counts)

# Plot ogive
plot(freq$breaks[-1], cum_freq, type = "o",
     col = "red", xlab = "Delivery Times",
     ylab = "Cumulative Frequency",
     main = "Ogive (Cumulative Frequency Polygon)")

```
