# Create a dataset manually

age\_group <- c("1-5", "6-10", "11-15", "16-20", "21-25", "26-30", "31-35", "36-40")

tumor\_size <- c(2, 5, 8, 12, 15, 18, 20, 22) # Tumor size in mm

inv\_nodes <- c(1, 3, 6, 10, 12, 15, 17, 20) # Invaded lymph nodes

age\_numeric <- c(3, 8, 13, 18, 23, 28, 33, 38) # Numeric representation for plotting

# Combine into a data frame

cancer\_data <- data.frame(Age\_Group = age\_group, Tumor\_Size = tumor\_size, Inv\_Nodes = inv\_nodes)

# Print the dataset

print("Breast Cancer Dataset:")

print(cancer\_data)

# 📊 Histogram: Tumor Size Distribution

hist(tumor\_size,

main = "Tumor Size Distribution",

xlab = "Tumor Size (mm)",

col = "blue",

border = "black")

# 🔴 Scatter Plot: Tumor Size vs. Invaded Nodes

plot(tumor\_size, inv\_nodes,

main = "Tumor Size vs. Invaded Nodes",

xlab = "Tumor Size (mm)",

ylab = "Number of Invaded Nodes",

col = "red", pch = 16)

# 📦 Boxplot: Tumor Size Distribution

boxplot(tumor\_size,

main = "Boxplot of Tumor Size",

ylab = "Tumor Size (mm)",

col = "green")