**WAP in R to create basic plots (histogram, bar plot, box plot, scatter plot).**

**SAMPLE DATASET**

| **x** | **y** |
| --- | --- |
| **Method A** | **78** |
| **Method B** | **65** |
| **Method A** | **90** |
| **Method B** | **80** |

Step-by-Step Guide to Plotting with Your Dataset:

1. Install and Load Required Packages

First, install the readxl package to load your Excel data into R.

install.packages("readxl")

library(readxl)

2. Load Your Dataset

Load your anova.xlsx file from your system:

# Load the Excel file (Replace the path with your file location)

data <- read\_excel("C:/Users/HP/Desktop/anova.xlsx")

# View the first few rows of the dataset to ensure it is loaded correctly

head(data)

3. Create the Plots Using Your Data

Now that your dataset is loaded, let's create the basic plots using the columns x and y from your dataset.

Histogram (For y or any continuous variable):

# Histogram of 'y'

hist(data$y,

main = "Histogram of y",

xlab = "y Values",

col = "skyblue",

border = "black",

breaks = 10) # Adjust the number of breaks as needed

Bar Plot (For x if it's categorical):

# Bar plot of 'x'

barplot(table(data$x),

main = "Bar Plot of x",

xlab = "x Categories",

ylab = "Frequency",

col = "orange")

Box Plot (For y by x if x is categorical):

# Box plot of 'y' for each level of 'x'

boxplot(y ~ x,

data = data,

main = "Box Plot of y for Each Category of x",

xlab = "x Categories",

ylab = "y Values",

col = "lightgreen")

Scatter Plot (For x and y if both are continuous):

# Scatter plot between 'x' and 'y'

plot(data$x, data$y,

main = "Scatter Plot of x vs y",

xlab = "x Values",

ylab = "y Values",

col = "blue",

pch = 19) # pch = 19 sets the point type (solid circle)