programmingstructureinR.R

user

2025-02-08

*# Create the data frame*  
Freq <- **c**(0.6, 0.3, 0.4, 0.4, 0.2, 0.6, 0.3, 0.4, 0.9, 0.2)  
BP <- **c**(103, 87, 32, 42, 59, 109, 78, 205, 135, 176)  
First <- **c**(1, 1, 1, 1, 0, 0, 0, 0, NA, 1) *# NA for missing data*  
Second <- **c**(0, 0, 1, 1, 0, 0, 1, 1, 1, 1)  
FinalDecision <- **c**(0, 1, 0, 1, 0, 1, 0, 1, 1, 1)  
  
*# Create a data frame*  
data <- **data.frame**(Freq, BP, First, Second, FinalDecision)  
  
*# Boxplot - Compare BP distribution for First and Second Assessments*  
**boxplot**(BP **~** First, data = data, main = "Boxplot of BP by First Assessment",   
 xlab = "First Assessment (bad=1, good=0)", ylab = "Blood Pressure")



*# Boxplot - Compare BP distribution for Second Assessment*  
**boxplot**(BP **~** Second, data = data, main = "Boxplot of BP by Second Assessment",   
 xlab = "Second Assessment (bad=1, good=0)", ylab = "Blood Pressure")



*# Boxplot - Compare BP distribution for Final Decision*  
**boxplot**(BP **~** FinalDecision, data = data, main = "Boxplot of BP by Final Decision",   
 xlab = "Final Decision (low=0, high=1)", ylab = "Blood Pressure")



*# Histogram - Distribution of BP for patients with bad (1) or good (0) first assessment*  
**par**(mfrow=**c**(1,2)) *# Set up side-by-side layout for histograms*  
**hist**(data**$**BP[data**$**First **==** 1], main="Histogram of BP for Bad First Assessment",   
 xlab = "Blood Pressure", col = "red", breaks = 5)  
**hist**(data**$**BP[data**$**First **==** 0], main="Histogram of BP for Good First Assessment",   
 xlab = "Blood Pressure", col = "blue", breaks = 5)



*# Reset the plot layout*  
**par**(mfrow=**c**(1,1))  
  
*# Plot histogram for the second assessment*  
**par**(mfrow=**c**(1,2))   
**hist**(data**$**BP[data**$**Second **==** 1], main="Histogram of BP for Bad Second Assessment",   
 xlab = "Blood Pressure", col = "red", breaks = 5)  
**hist**(data**$**BP[data**$**Second **==** 0], main="Histogram of BP for Good Second Assessment",   
 xlab = "Blood Pressure", col = "blue", breaks = 5)



*# Reset the plot layout*  
**par**(mfrow=**c**(1,1))