**PROGRAM 01 :**

student\_marks = data.frame( # Create data frame

RollNo = c(1, 2, 3, 4, 5),

Sub1 = c(85, 78, 92, 67, 80),

Sub2 = c(75, 82, 88, 70, 79),

Sub3 = c(90, 85, 95, 72, 88)

)

print(student\_marks) # Print the data frame

**OUTPUT :**

****

**PROGRAM 02**

**st**udent\_marks = data.frame( # Create data frame

RollNo = c(1, 2, 3, 4, 5),

Sub1 = c(85, 78, 92, 67, 80),

Sub2 = c(75, 82, 88, 70, 79),

Sub3 = c(90, 85, 95, 72, 88)

)

# Box plot for each subject

boxplot(

student\_marks[,2:4],

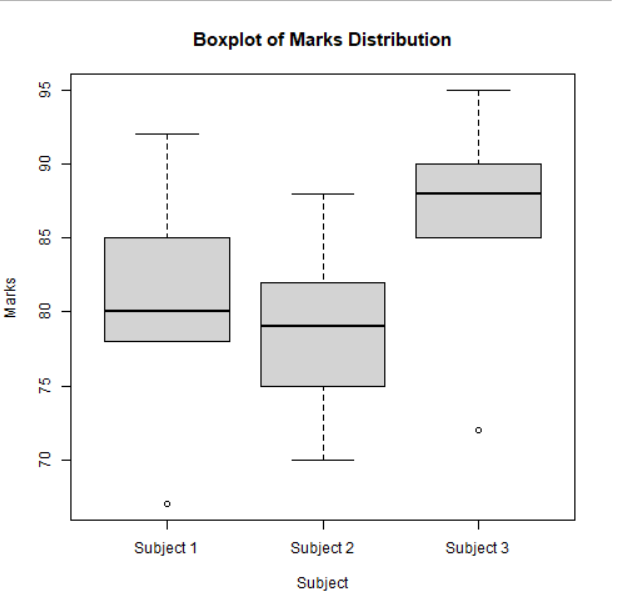
main="Boxplot of Marks Distribution",

xlab="Subject",

ylab="Marks",

names=c("Subject 1", "Subject 2", "Subject 3")

)

**OUTPUT :**

**PROGRAM 03 :**

student\_marks = data.frame( # Create data frame

Sub1 = c(85, 78, 92, 67, 80),

Sub2 = c(75, 82, 88, 70, 79),

Sub3 = c(90, 85, 95, 72, 88)

)

# Plot histograms for each subject

hist(student\_marks$Sub1,

main = "Subject 1 Marks",

xlab = "Marks"

)

hist(student\_marks$Sub2,

main = "Subject 2 Marks",

xlab = "Marks"

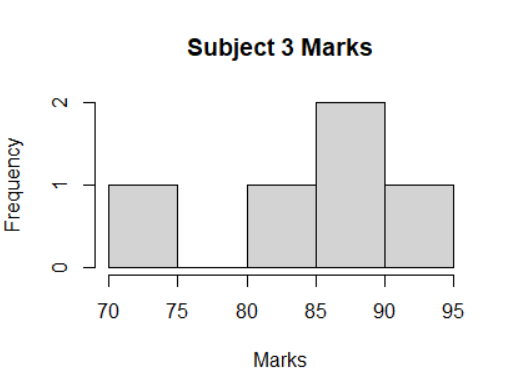
)

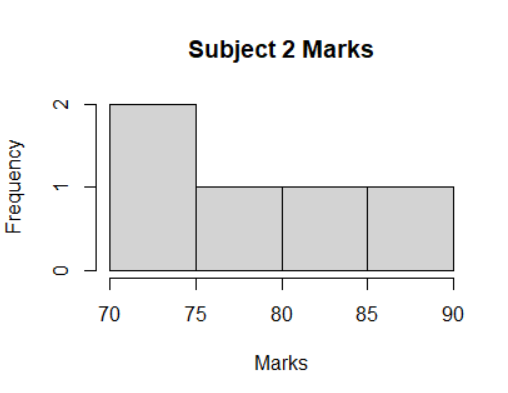
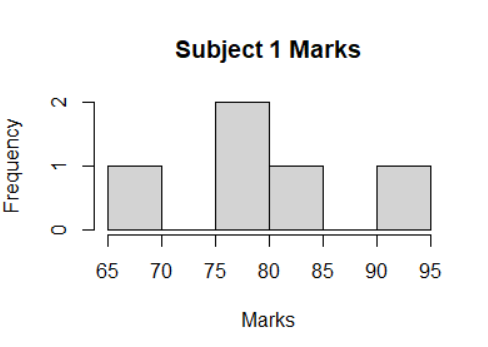
hist(student\_marks$Sub3,

main = "Subject 3 Marks",

xlab = "Marks"

)

**OUTPUT :** 

****

**PROGRAM 04 :**

student\_marks = data.frame( # Create data frame

RollNo = c(1, 2, 3, 4, 5),

Sub1 = c(85, 78, 92, 67, 80),

Sub2 = c(75, 82, 88, 70, 79),

Sub3 = c(90, 85, 95, 72, 88)

)

# Summary statistics for each subject

summary\_subject1 = summary(student\_marks$Sub1)

summary\_subject2 = summary(student\_marks$Sub2)

summary\_subject3 = summary(student\_marks$Sub3)

# Print summaries

cat("Summary for Subject 1:\n")

print(summary\_subject1)

cat("\n")

cat("Summary for Subject 2:\n")

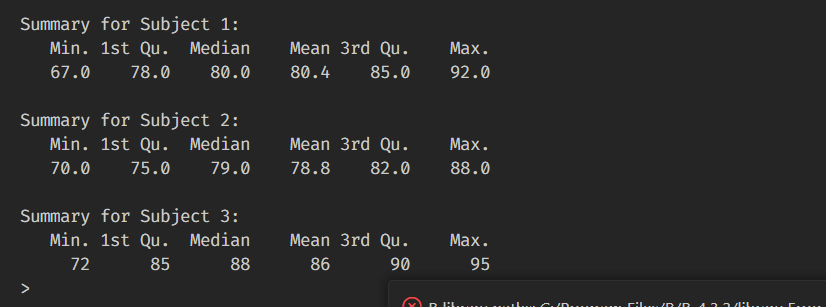
print(summary\_subject2)

cat("\n")

cat("Summary for Subject 3:\n")

print(summary\_subject3)

**OUTPUT :**

****

**PROGRAM 05 :**

student\_marks = data.frame( # Create data frame

Sub1 = c(85, 78, 92, 67, 80),

Sub2 = c(75, 82, 88, 70, 79),

Sub3 = c(90, 85, 95, 72, 88)

)

cat("\n\nSubect 1 : ", student\_marks$Sub1)

cat("\nMean : ", mean(student\_marks$Sub1))

cat("\nMedian : ", median(student\_marks$Sub1))

cat("\nRange : ", range(student\_marks$Sub1))

cat("\nVar : ", var(student\_marks$Sub1))

cat("\nStandard Deviation : ", sd(student\_marks$Sub1))

q1 = quantile(student\_marks$Sub1, 0.25)

q2 = quantile(student\_marks$Sub1, 0.75)

IQR = q2 - q1

cat("\nIQR : ", IQR)

cat("\n\nSubect 2 : ", student\_marks$Sub2)

cat("\nMean : ", mean(student\_marks$Sub2))

cat("\nMedian : ", median(student\_marks$Sub2))

cat("\nRange : ", range(student\_marks$Sub2))

cat("\nVar : ", var(student\_marks$Sub2))

cat("\nStandard Deviation : ", sd(student\_marks$Sub2))

q1 = quantile(student\_marks$Sub2, 0.25)

q2 = quantile(student\_marks$Sub2, 0.75)

IQR = q2 - q1

cat("\nIQR : ", IQR)

cat("\n\nSubect 3 : ", student\_marks$Sub3)

cat("\nMean : ", mean(student\_marks$Sub3))

cat("\nMedian : ", median(student\_marks$Sub3))

cat("\nRange : ", range(student\_marks$Sub3))

cat("\nVar : ", var(student\_marks$Sub3))

cat("\nStandard Deviation : ", sd(student\_marks$Sub3))

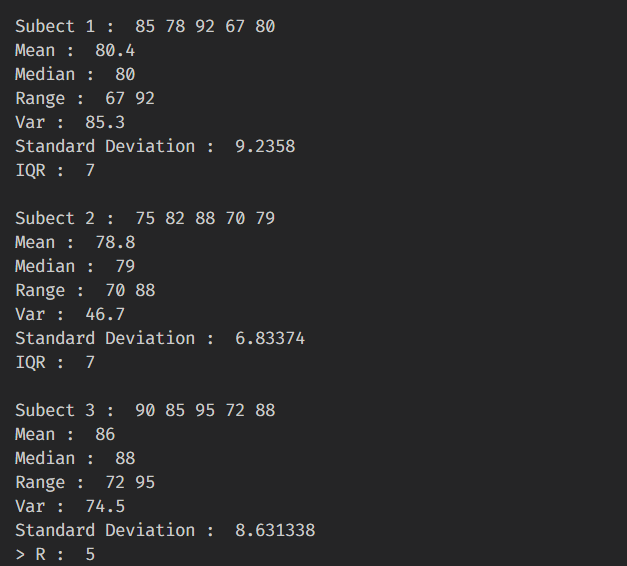
q1 = quantile(student\_marks$Sub3, 0.25)

q2 = quantile(student\_marks$Sub3, 0.75)

IQR = q2 - q1

cat("\nIQR : ", IQR)

**OUTPUT :**

****