R Notebook

This is an R Markdown Notebook. When you execute code within the notebook, the results appear beneath the code.

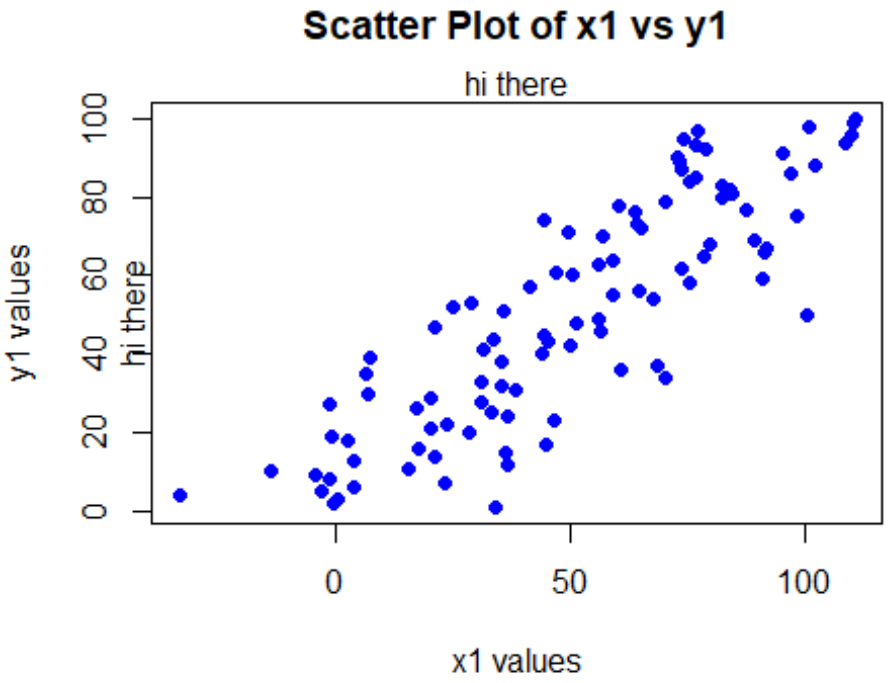
Try executing this chunk by clicking the *Run* button within the chunk or by placing your cursor inside it and pressing *Ctrl+Shift+Enter*.

```
set.seed(1001)
x1 = 1:100 + rnorm(100, mean=0, sd=15)
y1 = 1:100
```

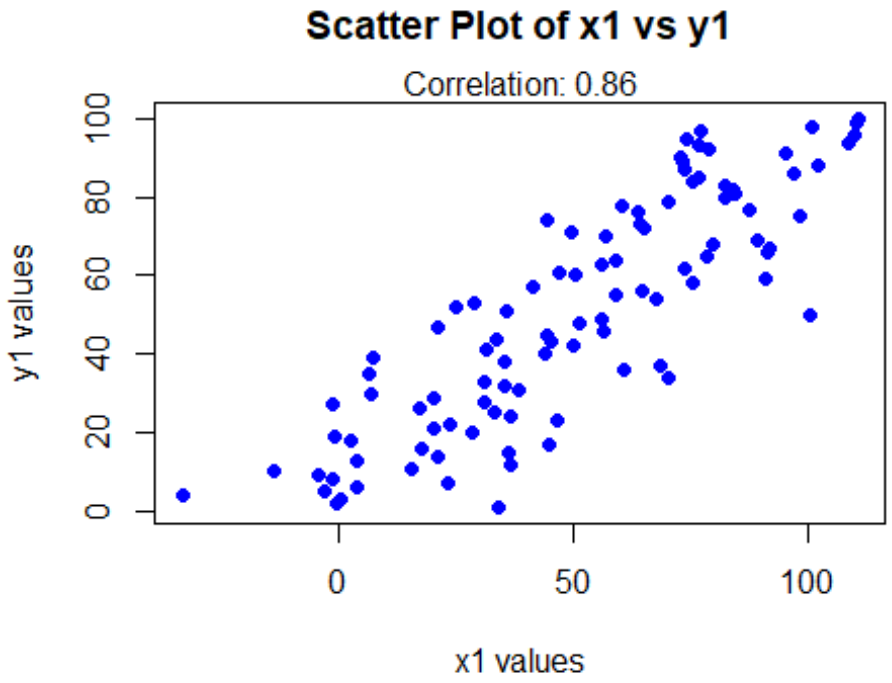
When you save the notebook, an HTML file containing the code and output will be saved alongside it (click the *Preview* button or press *Ctrl+Shift+K* to preview the HTML file).

The preview shows you a rendered HTML copy of the contents of the editor. Consequently, unlike *Knit*, *Preview* does not run any R code chunks. Instead, the output of the chunk when it was last run in the editor is displayed.

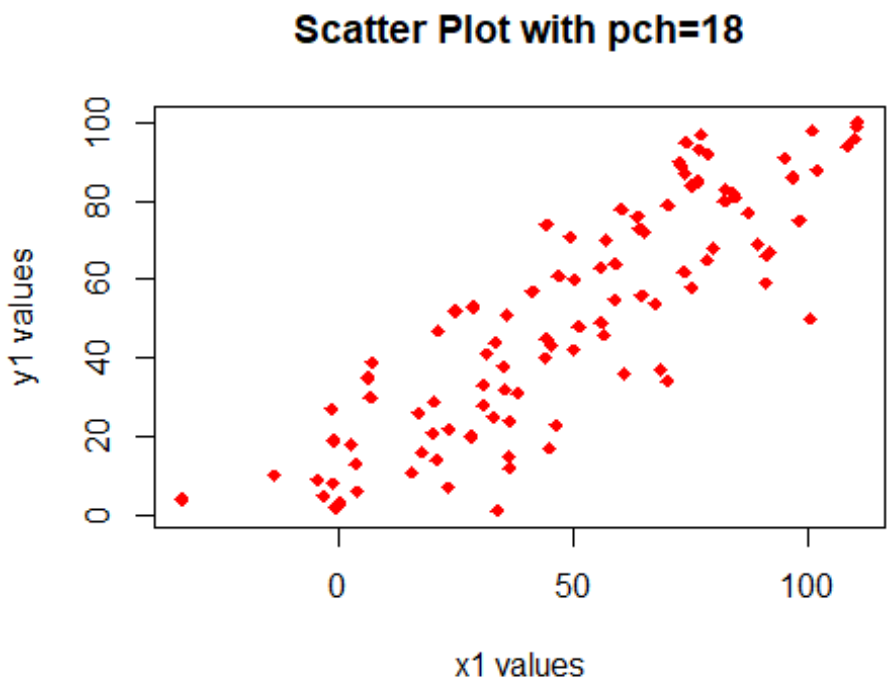
```
plot(x1, y1,
     main="Scatter Plot of x1 vs y1",
     xlab="x1 values",
     ylab="y1 values",
     col="blue",
     pch=19)

# Ajouter du texte sur la marge supérieure
mtext(side=3, text="hi there")

# Ajouter du texte sur la marge gauche
mtext(side=2, text="hi there")
```



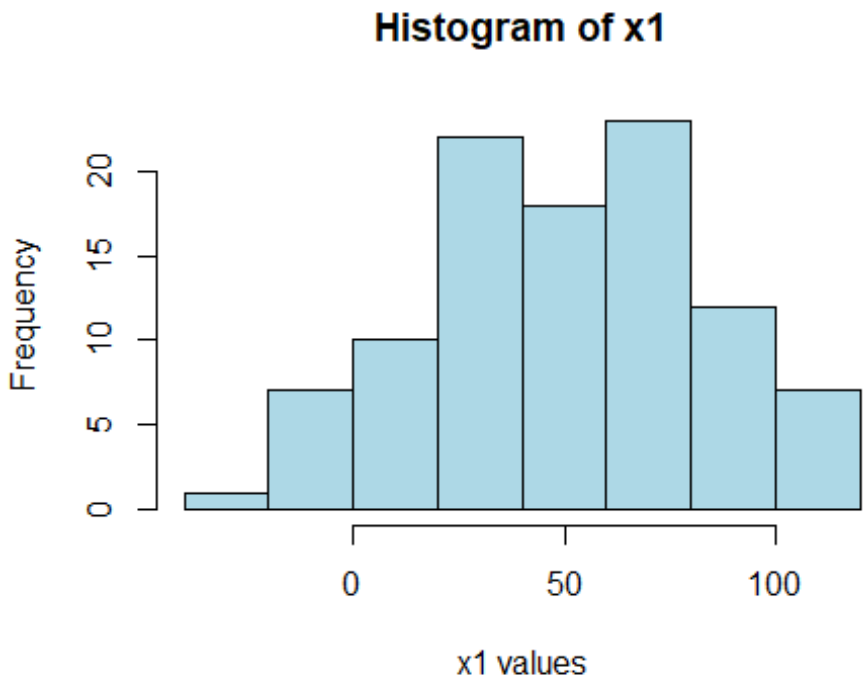

```r
# Calculer la corrélation
cor_value <- cor(x1, y1)

# Tracer le graphique
plot(x1, y1,
     main="Scatter Plot of x1 vs y1",
     xlab="x1 values",
     ylab="y1 values",
     col="blue",
     pch=19)

# Ajouter la corrélation sur la marge supérieure
mtext(side=3, text=paste("Correlation:", round(cor_value, 2)))
```



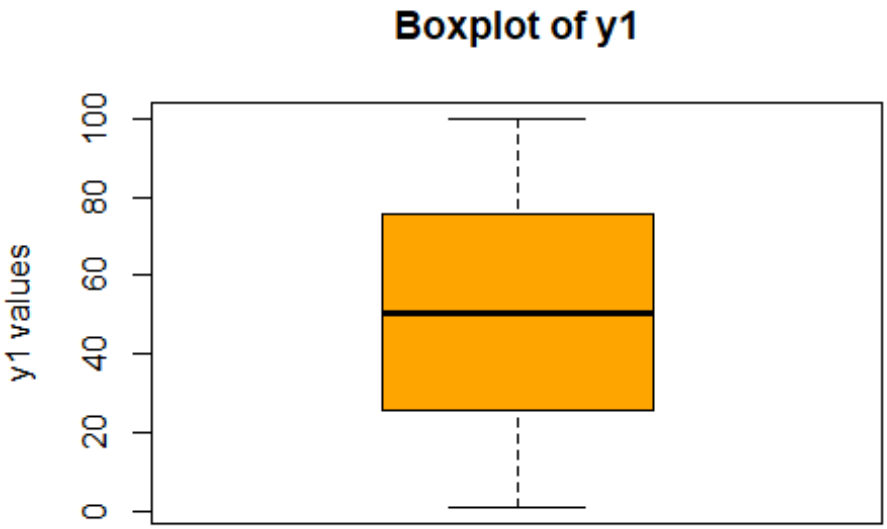

```r
plot(x1, y1,
     main="Scatter Plot with pch=18",
     xlab="x1 values",
     ylab="y1 values",
     col="red",
     pch=18)
```



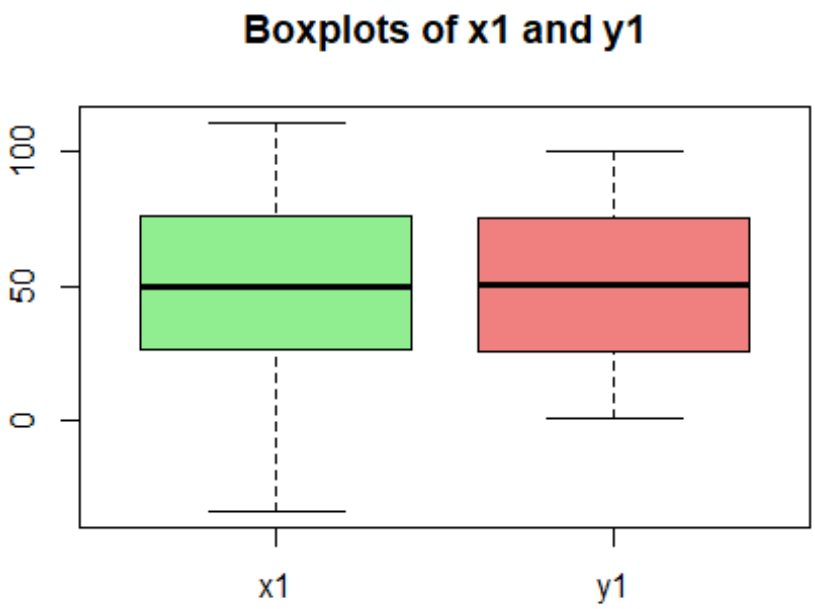

```r
hist(x1,
     main="Histogram of x1",
     xlab="x1 values",
     col="lightblue",
     border="black")
```



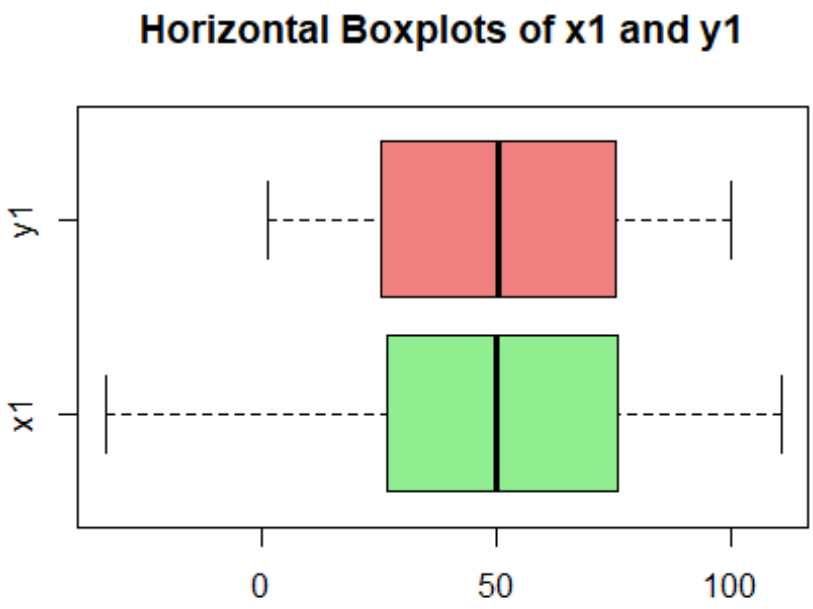

```r
boxplot(y1,
        main="Boxplot of y1",
        ylab="y1 values",
        col="orange")
```



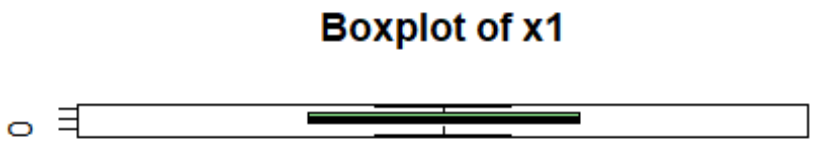

```r
boxplot(x1, y1,
        names = c("x1", "y1"),
        main="Boxplots of x1 and y1",
        col=c("lightgreen", "lightcoral"))
```

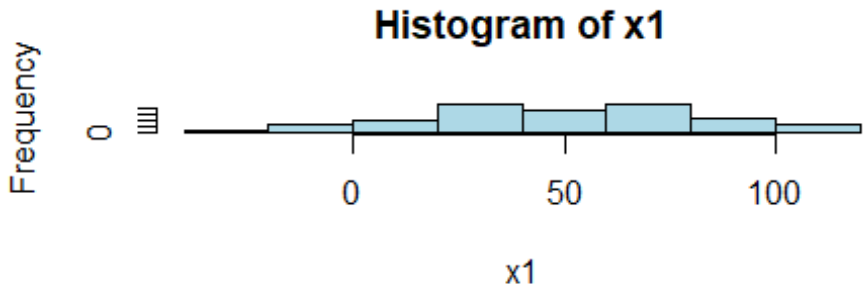



```r
boxplot(x1, y1,
        names = c("x1", "y1"),
        main="Horizontal Boxplots of x1 and y1",
        col=c("lightgreen", "lightcoral"),
        horizontal = TRUE)
```

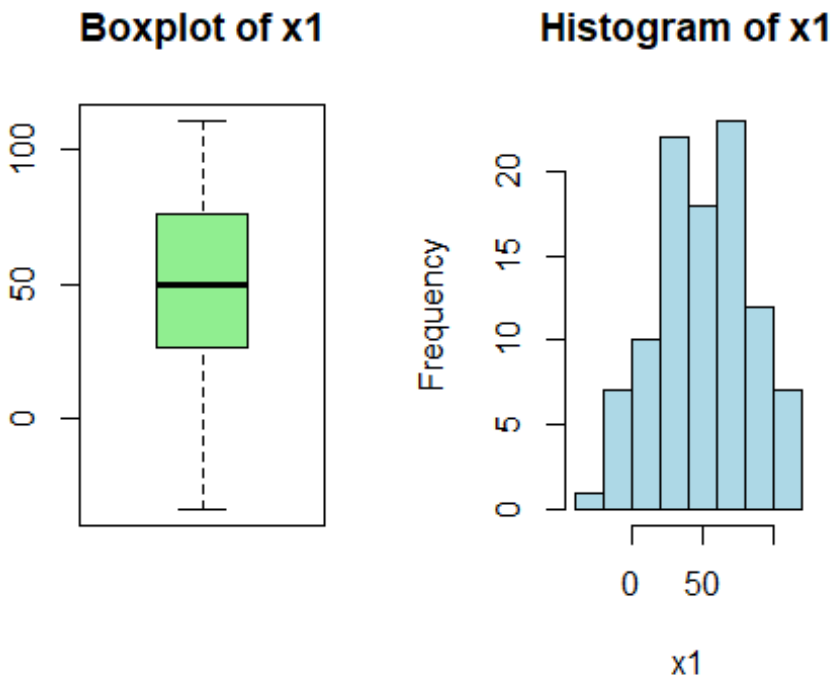



```r
par(mfrow=c(2,1))

# Tracer le boxplot
boxplot(x1,
        main="Boxplot of x1",
        col="lightgreen")

# Tracer l'histogramme
hist(x1,
     main="Histogram of x1",
     col="lightblue")
```






```r
par(mfrow=c(1,2))

# Tracer le boxplot
boxplot(x1,
        main="Boxplot of x1",
        col="lightgreen")

# Tracer l'histogramme
hist(x1,
     main="Histogram of x1",
     col="lightblue")
```




```r
pdf("my_plots.pdf")

# Refaire tous les graphiques dans le PDF
par(mfrow=c(2,2))
plot(x1, y1, main="Scatter Plot", xlab="x1", ylab="y1", col="blue", pch=19)
hist(x1, main="Histogram of x1", col="lightblue")
boxplot(y1, main="Boxplot of y1", col="orange")
boxplot(x1, y1, names=c("x1", "y1"), main="Boxplots", col=c("lightgreen",
"lightcoral"))

dev.off()  # Fermer le fichier PDF
```

```
## png
##   2
```

```r
# Ouvrir un fichier PDF pour sauvegarder les graphiques
pdf("mes_graphiques.pdf")
```