Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:33 PM

Create a new R program - my

mycompiler.io/new/r

R

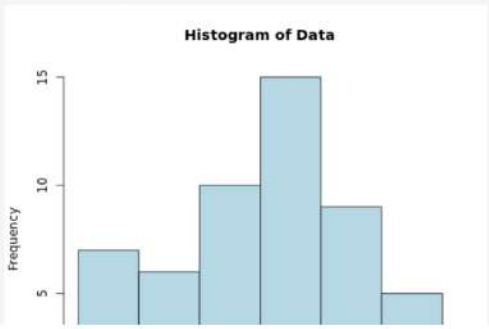
Run Save

```r

data <- c(1, 1, 5, 5, 5, 5, 5, 8, 8, 10, 10, 10, 10, 12, 14, 14, 14, 15, 15, 15, 15, 15, 15,
          18, 18, 18, 18, 18, 18, 18, 18, 20, 20, 20, 20, 20, 20, 20, 21, 21, 21, 21, 25, 25,
          25, 25, 25, 28, 28, 30, 30, 30)


n <- length(data)
bins <- split(data, cut(seq_along(data), 3, labels = FALSE))


bin_means <- lapply(bins, mean)
data_smooth_means <- unlist(mapply(function(b, m) rep(m, length(b)), bins, bin_means))


data_smooth_boundaries <- unlist(lapply(bins, function(b) {
  min_b <- min(b)
  max_b <- max(b)
  b[b < (min_b + max_b) / 2] <- min_b
  b[b >= (min_b + max_b) / 2] <- max_b
  return(b)
}))

# Step 3: Plot Histogram
hist(data, breaks=10, col="lightblue", main="Histogram of Data", xlab="Value", border="black")

```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:29 PM

Create a new R program - my

mycompiler.io/new/r

R

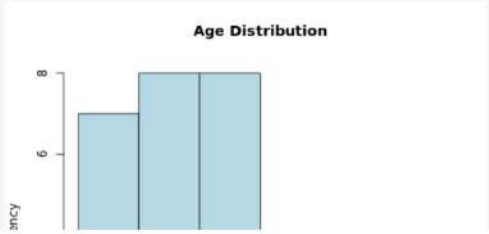
Run Save

```r

ages <- c(13, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25, 25, 25, 30, 33, 33,
          35, 35, 35, 35, 36, 40, 45, 46, 52, 70)


summary(ages)


sd(ages)
var(ages)


hist(ages, main="Age Distribution", xlab="Age", col="lightblue", border="black")


boxplot(ages, main="Boxplot of Ages", col="orange", horizontal=TRUE)

```

Program input

Output

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  13.00   20.50   25.00   29.96   35.00   70.00
[1] 12.94212
[1] 167.4986

[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:31 PM

Create a new R program - my

mycompiler.io/new/r

R

Run Save

```r

data <- matrix(c(15, 10, 5, 20, 25, 15, 10, 30, 20), nrow = 3, byrow = TRUE)

rownames(data) <- c("Age_Group_1", "Age_Group_2", "Age_Group_3")
colnames(data) <- c("Photo_A", "Photo_B", "Photo_C")


test_result <- chisq.test(data)

print(test_result)

```

Program input

Output

```
        Pearson's Chi-squared test

data:  data
X-squared = 11.311, df = 4, p-value = 0.02328


[Execution complete with exit code 0]
```


Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:34 PM

Create a new R program - my

mycompiler.io/new/r

R

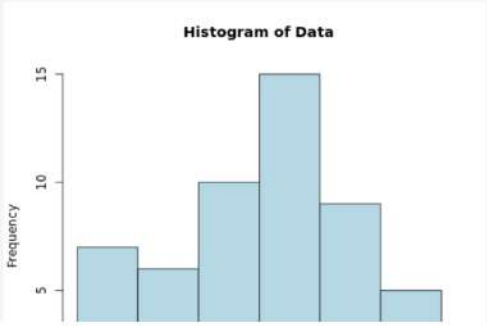
Run Save

```r

class_A <- c(76, 35, 47, 64, 95, 66, 89, 36, 84)
class_B <- c(51, 56, 84, 60, 59, 70, 63, 66, 50)


mean_A <- mean(class_A)
median_A <- median(class_A)
range_A <- range(class_A)
range_A_value <- max(class_A) - min(class_A)

mean_B <- mean(class_B)
median_B <- median(class_B)
range_B <- range(class_B)
range_B_value <- max(class_B) - min(class_B)


cat("Class A - Mean:", mean_A, "Median:", median_A, "Range:", range_A_value, "\n")
cat("Class B - Mean:", mean_B, "Median:", median_B, "Range:", range_B_value, "\n")

boxplot(class_A, class_B, names = c("Class A", "Class B"),
        col = c("lightblue", "lightgreen"), main = "Comparison of Class Scores",
        ylab = "Scores", border = "black")


```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:35 PM

Create a new R program - my

mycompiler.io/new/r

R

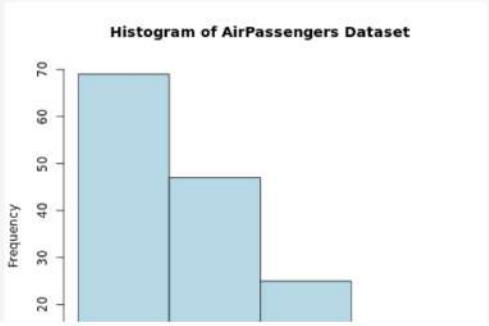
Run Save

```r

data <- AirPassengers
hist(data,
     breaks = seq(100, 700, by = 150),  # Bins starting at 100, width = 150
     col = "lightblue",
     main = "Histogram of AirPassengers Dataset",
     xlab = "Number of Passengers",
     border = "black")

```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:35 PM

Create a new R program - my

mycompiler.io/new/r

R

Run Save

```r

data <- c(200, 300, 400, 600, 1000)
min_val <- min(data)
max_val <- max(data)
min_max_norm <- (data - min_val) / (max_val - min_val)


mean_val <- mean(data)
sd_val <- sd(data)
z_score_norm <- (data - mean_val) / sd_val

# Print results
cat("Min-Max Normalized Data:\n", min_max_norm, "\n")
cat("Z-Score Normalized Data:\n", z_score_norm, "\n")

```

Program input

Output

```
Min-Max Normalized Data:
 0 0.125 0.25 0.5 1
Z-Score Normalized Data:
 -0.9486833 -0.6324555 -0.3162278 0.3162278 1.581139

[Execution complete with exit code 0]
```


Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:36 PM

Create a new R program - my

mycompiler.io/new/r

R

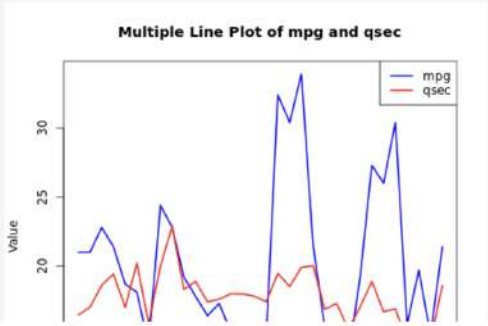
Run Save

```r

data <- mtcars


plot(data$mpg, type = "l", col = "blue", lwd = 2, ylim = range(c(data$mpg, data$qsec)),
     xlab = "Index", ylab = "Value", main = "Multiple Line Plot of mpg and qsec")

lines(data$qsec, col = "red", lwd = 2)
legend("topright", legend = c("mpg", "qsec"), col = c("blue", "red"), lwd = 2)

```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:37 PM

Create a new R program - my

mycompiler.io/new/r

R

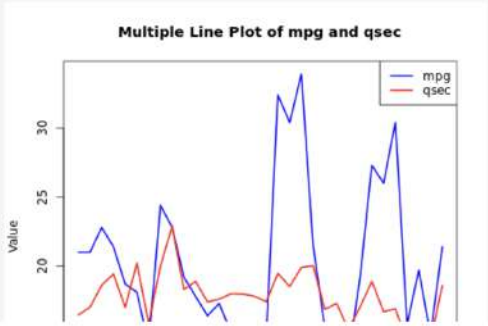
Run Save

```r

data <- mtcars
plot(data$mpg, type = "l", col = "blue", lwd = 2, ylim = range(c(data$mpg, data$qsec)),
     xlab = "Index", ylab = "Value", main = "Multiple Line Plot of mpg and qsec")

lines(data$qsec, col = "red", lwd = 2)
legend("topright", legend = c("mpg", "qsec"), col = c("blue", "red"), lwd = 2)

```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:39 PM

Create a new R program - my

mycompiler.io/new/r

R

Run Save

```r

scores <- c(15, 18, 25, 30, 22, 27, 35, 40, 100, 20)  # 100 is a possible outlier
boxplot(scores,
        col = "lightblue",
        main = "Boxplot of Tennis Players' Scores",
        ylab = "Points Scored",
        horizontal = FALSE,
        notch = TRUE)

grid()

```

Program input

Output

```
Warning message:
In (function (z, notch = FALSE, width = NULL, varwidth
  some notches went outside hinges ('box'): maybe set n

[Execution complete with exit code 0]
```

Supported languages

Deno JavaScript NodeJS Python Ruby Go

Chrome File Edit View History Bookmarks Profiles Tab Window Help Wed 26 Feb 10:38 PM

Create a new R program - my

mycompiler.io/new/r

R

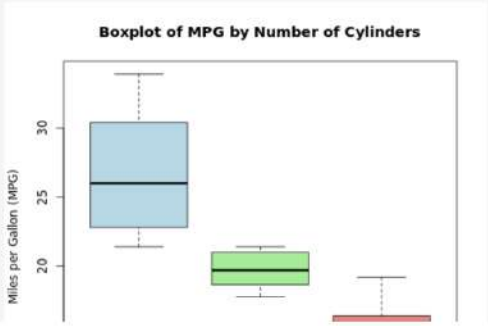
Run Save

```r

data <- mtcars
boxplot(mpg ~ cyl, data = data,
        col = c("lightblue", "lightgreen", "lightcoral"),
        main = "Boxplot of MPG by Number of Cylinders",
        xlab = "Number of Cylinders",
        ylab = "Miles per Gallon (MPG)")

```

Program input

Output

```
[Execution complete with exit code 0]
```



Supported languages

Deno JavaScript NodeJS Python Ruby Go