How can I create a matrix in R using random numbers?

Authored by

stats writer

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To create a matrix in R using random numbers, one can use the "matrix" function and specify the number of rows and columns desired. The "runif" function can then be used to generate random numbers within a specified range, which can be assigned to the matrix. This process can be repeated for each element in the matrix, resulting in a matrix filled with random numbers.

Create a Matrix with Random Numbers in R

You can use one of the following methods to create a matrix with random numbers in R:

Method 1: Create Matrix with Random Values in Range

#create matrix of 10 random values between 1 and 20
random_matrix <- matrix(runif(n=10, min=1, max=20), nrow=5)

Method 2: Create Matrix with Random Integers in Range

#create matrix of 10 random integers between 1 and 20
random_matrix <- matrix(round(runif(n=10, min=1, max=20), 0), nrow=5)

The following examples show how to use each of these methods in practice.

Method 1: Create Matrix with Random Values in Range

The following code shows how to create a matrix with 5 rows consisting of 10 random values between 1 and 20:

```
#make this example reproducible
set.seed(1)

#create matrix with 10 random numbers between 1 and 20
random_matrix <- matrix(runif(n=10, min=1, max=20), nrow=5)

#view matrix
random_matrix
```

```
6.044665 18.069404
8.070354 18.948830
11.884214 13.555158
18.255948 12.953167
4.831957 2.173939
```

The result is a matrix with 5 rows and 2 columns, where each value in the matrix is between 1 and 20.

Method 2: Create Matrix with Random Integers in Range

The following code shows how to create a matrix of 10

random integers between 1 and 50:

```
#make this example reproducible
set.seed(1)

#create matrix with 10 random integers between 1 and 50
random_matrix <- matrix(round(runif(n=10, min=1, max=50), 0), nrow=5)

#view matrix
random_matrix
```

```
14 45
19 47
29 33
46 32
11 4
```

The result is a matrix with 5 rows and 2 columns, where each value in the matrix is an integer between 1 and 50.

Note that the runif() function generates random numbers, *including* the min and max values.

For example, it's possible that the matrix above could

have included both 1 and 50.

Also note that it's possible for the same number to appear multiple times in the matrix when using this method.