

How can I combine a list of matrices in R?

Authored by
stats writer

June 27, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I combine a list of matrices in R?*. PSYCHOLOGICAL SCALES.
Retrieved from <https://scales.arabpsychology.com/?p=155566>

To combine a list of matrices in R, you can use the function "rbind" to combine the rows of the matrices or "cbind" to combine the columns. Alternatively, you can use the "merge" function to join the matrices based on a common column. It is important to ensure that the dimensions and data types of the matrices are compatible before combining them.

Combine a List of Matrices in R

You can use the following methods to combine a list of matrices in R:

Method 1: Combine List of Matrices by Rows

```
do.call(rbind, list_of_matrices)
```

Method 2: Combine List of Matrices by Columns

```
do.call(cbind, list_of_matrices)
```

The following examples show how to use each method in practice with the following two matrices in R:

```
#define matrices
```

```
matrix1 <- matrix(1:6, nrow=3)
```

```
matrix2 <- matrix(7:12, nrow=3)
```

```
#view first matrix
```

```
matrix1
```

1 4

2 5

3 6

```
#view second matrix  
matrix2
```

7 10

8 11

9 12

Example 1: Combine List of Matrices by Rows

The following code shows how to use the function to combine a list of matrices by rows:

```
#create list of matrices  
matrix_list <- list(matrix1, matrix2)
```

```
#combine into one matrix by rows  
do.call(rbind, matrix_list)
```

1 4

2 5

3 6

7 10

8 11

9 12

The two matrices have been combined into a single matrix by rows.

Example 2: Combine List of Matrices by Columns

The following code shows how to use the function to combine a list of matrices by columns:

```
#create list of matrices
```

```
matrix_list <- list(matrix1, matrix2)
```

```
#combine into one matrix by columns
```

```
do.call(cbind, matrix_list)
```

```
1 4 7 10
```

```
2 5 8 11
```

```
3 6 9 12
```

The two matrices have been combined into a single matrix by columns.

Related: