

Sort Data Frame Using row.names Attribute

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The row.names attribute is a useful tool when sorting a data frame in R. It allows you to sort the data frame in ascending or descending order using the name of each row as the sorting criterion. This is useful when you need to sort the data frame by one or more of its columns, or even by a custom criterion such as a specific keyword. In this case, the sorting is done automatically based on the row.names attribute, making sorting data frames much easier and more convenient.

You can use the following two methods to sort a data frame in R by using the **row.names** attribute:

Method 1: Sort Using Character row.names

df

Method 2: Sort Using Numeric row.names

df

The following examples shows how to use each method in practice.

Example 1: Sort Data Frame Using Character row.names

Suppose we have the following data frame in R:

```
#create data frame
df <- data.frame(position=c('G', 'G', 'F', 'F', 'C'),
points=c(99, 90, 86, 88, 95),
assists=c(33, 28, 31, 39, 34),
rebounds=c(30, 28, 24, 24, 28))
```

```
#set row names of data frame
row.names(df) <- c('A', 'C', 'E', 'D', 'B')
```

```
#view data frame
```

```
df
```

```
position points assists rebounds
```

```
A G 99 33 30
```

```
C G 90 28 28
```

```
E F 86 31 24
```

```
D F 88 39 24
```

```
B C 95 34 28
```

We can use the following syntax to sort the rows of the data frame alphabetically using the **row.names** attribute:

```
#sort rows alphabetically using row.names
```

```
df
```

```
position points assists rebounds
```

```
A G 99 33 30
```

```
B C 95 34 28
```

```
C G 90 28 28
```

```
D F 88 39 24
```

```
E F 86 31 24
```

The rows are sorted from A to Z based on the row name value.

You can also use the **decreasing=TRUE** argument to sort from Z to A:

```
#sort rows from Z to A using row.names
```

```
df
```

```
position points assists rebounds
```

```
E F 86 31 24
```

```
D F 88 39 24
```

```
C G 90 28 28
```

```
B C 95 34 28
```

```
A G 99 33 30
```

Example 2: Sort Data Frame Using Numeric row.names

Suppose we have the following data frame in R:

```
#create data frame
```

```
df <- data.frame(position=c('G', 'G', 'F', 'F', 'C'),
```

```
points=c(99, 90, 86, 88, 95),
```

```
assists=c(33, 28, 31, 39, 34),
```

```
rebounds=c(30, 28, 24, 24, 28))
```

```
#set row names of data frame
```

```
row.names(df) <- c(1, 100, 4, 12, 19)
```

```
#view data frame
```

df

position points assists rebounds

1 G 99 33 30

100 G 90 28 28

4 F 86 31 24

12 F 88 39 24

19 C 95 34 28

#sort by row names from smallest to largest

df

position points assists rebounds

1 G 99 33 30

4 F 86 31 24

12 F 88 39 24

19 C 95 34 28

100 G 90 28 28

We could also use **decreasing=TRUE** to sort from largest to smallest:

#sort by row names from largest to smallest

df

position points assists rebounds

100 G 90 28 28

19 C 95 34 28

12 F 88 39 24

4 F 86 31 24

1 G 99 33 30