How can I use the strsplit() function in R to split elements of a string?

Authored by

stats writer

June 29, 2024

The strsplit() function in R is a useful tool for splitting elements of a string into separate parts. This function takes in a string as input and allows the user to specify a delimiter or separator to split the string into multiple components. By utilizing this function, the user can easily break down a complex string into smaller, more manageable parts. This can be especially helpful for manipulating data or text in a specific format. Overall, the strsplit() function is an efficient way to extract and manipulate individual elements of a string in R.

Use strsplit() Function in R to Split Elements of String

The strsplit() function in R can be used to split a string into multiple pieces. This function uses the following syntax:

strsplit(string, pattern)

where:

string: Character vectorpattern: Pattern to split on

The following examples show how to use this function in practice.

Example 1: Split String Based on Spaces

The following code shows how to use the strsplit() function to split a string based on spaces:

#split string based on spaces
split_up <- strsplit("Hey there people", split=" ")

```
#view results
split_up

]
"Hey" "there" "people"

#view class of split_up
class(split_up)

"list"
```

The result is a list of three elements that are split based on the spaces in the original string.

We can use the unlist() function if we would instead like to produce a vector as the result:

```
#split string based on spaces
split_up <- unlist(strsplit("Hey there people", split=" "))

#view results
split_up

"Hey" "there" "people"

#view class of split_up
```

```
class(split_up)

"character"
```

We can see that the result is a character vector.

Example 2: Split String Based on Custom Delimiter

We can also use the strplit() function to split a string based on a custom delimiter, such as a dash:

```
#split string based on dashes
strsplit("Hey-there-people", split="-")

]
"Hey" "there" "people"
```

The result is a list of three elements that are split based on the dashes in the original string.

Example 3: Split String Based on Several Delimiters

```
#split string based on several delimiters
strsplit("Hey&there-you/people", split="")

]
"Hey" "there" "you" "people"
```

The result is a list of elements that were split whenever any of the following delimiters were present in the original string:

Ampersand (&)Dash (-)Slash (/)

Additional Resources

The following tutorials explain how to perform other common operations with strings in R:

How to Perform Partial String Matching in R