

How can I use the `str_detect()` function in R for pattern matching?

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The `str_detect()` function in R is a useful tool for conducting pattern matching within strings of text. This function allows the user to specify a specific pattern or string of characters and check if it exists within a larger string. By using this function, users can efficiently search for specific words, phrases, or characters within a dataset or text document. This can be particularly helpful for data analysis and data manipulation tasks. Additionally, the `str_detect()` function has various options for case sensitivity and the use of regular expressions, providing a high level of flexibility for different types of pattern matching. Overall, the `str_detect()` function is a powerful tool for identifying and extracting specific patterns within text data in the R programming language.

Use `str_detect()` Function in R (3 Examples)

You can use the `str_detect()` function from the `stringr` function R to detect the presence or absence of a certain pattern in a string.

This function uses the following basic syntax:

```
library(stringr)
```

```
#check if "hey" exists in object named x  
str_detect(x, "hey")
```

This function returns `TRUE` if the pattern is present in the string or `FALSE` if it is not.

The following examples show how to use this function in different scenarios.

Example 1: Use str_detect() with String

The following code shows how to use the str_detect() function to detect if the pattern "hey" is present in a certain string:

```
library(stringr)
```

```
#create string
```

```
x <- "hey there everyone"
```

```
#determine if "hey" is present in string
```

```
str_detect(x, "hey")
```

```
TRUE
```

From the output we can see that "hey" is present in the string.

Note that str_detect() is case-sensitive as well:

```
library(stringr)
```

```
#create string
```

```
x <- "hey there everyone"
```

```
#determine if "Hey" is present in string
```

```
str_detect(x, "Hey")
```

FALSE

From the output we can see that "Hey" is not present in the string.

Example 2: Use str_detect() with Vector

The following code shows how to use the str_detect() function to detect if the pattern "hey" is present in each individual element of a vector:

```
library(stringr)
```

```
#create vector
```

```
x <- c("hello", "heyo", "hi", "hey")
```

```
#determine if "hey" is present in each element of vector  
str_detect(x, "hey")
```

FALSE TRUE FALSE TRUE

From the output we can see that "hey" is just the second and fourth elements of the vector.

Example 3: Use str_detect() with Data Frame

```
library(stringr)
```

```
#create data frame
```

```
df <- data.frame(team=c("Mavs", "Heat", "Pacers",  
"Cavs"),  
points=c(99, 90, 86, 103))
```

```
#subset data frame based on teams that have "avs" in  
the name
```

```
df
```

```
team points
```

```
1 Mavs 99
```

```
4 Cavs 103
```

Notice that only the teams that have "avs" in the name are included in the final data frame.

Additional Resources