How to use strptime and strftime Functions in R?

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The strptime and strftime functions in R are useful for converting data from one date format to another. The strptime function takes a character string and attempts to convert it to a POSIXct date object, while the strftime function takes a POSIXct date object and converts it to a character string in a specified format. Both functions are useful for formatting dates and times for use in data analysis.

You can use the **strptime** and **strftime** functions in R to convert between character and time objects.

The **strptime** function converts characters to time objects and uses the following basic syntax:

strptime(character_object, format="%Y-%m-%d")

The **strftime** function converts time objects to characters and uses the following basic syntax:

strftime(time_object)

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

Example 1: Use strptime Function in R

Suppose we have the following character vector in R:

```
#create character vector
char_data <- c("2022-01-01", "2022-01-25", "2022-02-14", "2022-03-19")

#view class of vector
class(char_data)
```

"character"

We can use the **strptime** function to convert the characters to time objects:

```
#convert characters to time objects
time_data <- strptime(char_data, format="%Y-%m-%d")

#view new vector
time_data
```

"2022-01-01 UTC" "2022-01-25 UTC" "2022-02-14 UTC" "2022-03-19 UTC"

```
#view class of new vector
class(time_data)
```

"POSIXlt" "POSIXt"

We can see that the characters have been converted to time objects.

Note that we can also use the **tz** argument to convert the characters to time objects with a specific time zone.

For example, we could specify "EST" to convert the characters to time objects in the Eastern Time Zone:

```
#convert characters to time objects in EST time zone
time_data <- strptime(char_data, format="%Y-%m-%d", tz="EST")

#view new vector
time_data
```

"2022-01-01 EST" "2022-01-25 EST" "2022-02-14 EST" "2022-03-19 EST"

Notice that each of the time objects now end with **EST**, which indicates an Eastern Time Zone.

Example 2: Use strftime Function in R

```
#create vector of time objects
time_data <- as.POSIXct(c("2022-01-01", "2022-01-25", "2022-02-14"))

#view class of vector
class(time_data)
```

"POSIXct" "POSIXt"

We can use the **strftime** function to convert the time objects to characters:

```
#convert time objects to characters
char_data <- strftime(time_data)

#view new vector
char_data
```

"2022-01-01" "2022-01-25" "2022-02-14"

```
#view class of new vector
class(char_data)
```

```
"character"
```

We can see that the time objects have been converted to characters.