

R switch() Function (With Examples)



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In this article, you will learn to use `switch()` function in R programming with the help of examples.

The `switch()` function in R tests an expression against elements of a list. If the value evaluated from the expression matches item from the list, the corresponding value is returned.

Syntax of switch() function

```
switch (expression, list)
```

Here, the *expression* is evaluated and based on this value, the corresponding item in the list is returned.

If the value evaluated from the *expression* matches with more than one item of the list, `switch()` function returns the first matched item.

Example: switch() function

If the value evaluated is a number, that item of the list is returned.

```
> switch(2,"red","green","blue")  
[1] "green"  
> switch(1,"red","green","blue")  
[1] "red"
```

In the above example, `"red","green","blue"` form a three item list.

The `switch()` function returns the corresponding item to the numeric value evaluated.

If the numeric value is out of range (greater than the number of items in the list or smaller than 1), then, `NULL` is returned.

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```
> x <- switch(4,"red","green","blue")
> x
NULL
> x <- switch(0,"red","green","blue")
> x
NULL
```

Example: switch() Function with as String Expression

The *expression* used in the `switch()` function can be a string as well. In this case, the matching named item's value is returned.

```
> switch("color", "color" = "red", "shape" = "square", "length" = 5)
[1] "red"
```

Here, `"color"` is a string which matches with the first item of the list. Hence, we are getting "red" as an output.

```
> switch("length", "color" = "red", "shape" = "square", "length" = 5)
[1] 5
```

Similarly, `"length"` expression matches with the last item of the list. Hence, we are getting 5 as an output.