

Bash Find

In this topic, we have demonstrated about finding the length of a string in Bash Scripting.

The total number of characters in any string indicates the length of a string. In some cases, we might need to know about the length of a string to perform some specific tasks. Most of the programming languages have their own built-in functions to calculate the number of characters. However, Bash does not contain such type of built-in functions. But there are several ways that we can use to find the length of a string in Bash Scripting.

Bash StringLength

To calculate the length of a string, we can use any of the following syntax:

1. 1. `${#string}`
2. 2. `expr length "$string"`
3. 3. `expr "$string" :'.*'`
4. 4. `$str | wc -c`
5. 5. `$str | awk '{print length}'`

Note: Observe the double quotes used around \$string. If a string has spaces in it, then double quotes are very important. Otherwise, it can be ignored. We recommend to always use double quotes around \$string to be on the safe side.

The above syntax defines that we can find the length of a string with or without bash command. Using '#' sign, we can calculate the length of a string without applying any bash command. Let's understand it more clearly with the help of some examples:

Examples to find String Length in Bash

There are some examples given below illustrating the different ways to find a string length in bash shell scripting:

Example 1

The simplest way to calculate the length of a string is to use '#' symbol. In this example, we have used `${#string_variable_name}` to find the length of a string.

Bash Script

```
#!/bin/bash
#Bash program to find the length of a string

str="Welcome to Javatpoint"
length=${#str}

echo "Length of '$str' is $length"
```

Output

Length of 'Welcome to Javatpoint' is 21

Example 2

Another way to calculate the length of a string is to use ``expr`` command with the 'length' keyword. In this example, we have used ``expr length "$str"`` to find the length of a string.

Bash Script

```
#!/bin/bash
```

#Bash script to find the length of a string

```
str="Welcome to Javatpoint"
```

```
length=`expr length "$str"`
```

```
echo "Length of '$str' is $length"
```

Output

Length of 'Welcome to Javatpoint' is 21

Example 3

In this example, we have used ``expr "$str": '.*'`` to find the length of a string. Here, str is a string variable.

Bash Script

```
#!/bin/bash
```

```
#Bash script to find the length of a string
```

```
str="Welcome to Javatpoint"
```

```
length=`expr "$str" : '.*'`
```

```
echo "Length of '$str' is $length"
```

Output

Length of 'Welcome to Javatpoint' is 21

Example 4

In this example, we have used `wc` command to find the length of a string.

Bash Script

```
#!/bin/bash
#Bash script to find the length of a string

str="Welcome to Javatpoint"
length=`echo $str | wc -c`

echo "Length of '$str' is $length"
```

Output

Length of 'Welcome to Javatpoint' is 22

Example 5

In this example, we have used `awk` command to find the length of a string.

Bash Script

```
#!/bin/bash
#Bash script to find the length of a string

str="Welcome to Javatpoint"
length=`echo $str | awk '{print length}'`

echo "Length of '$str' is $length"
```

Output

Length of 'Welcome to Javatpoint' is 21