

# Bash – Check if variable is set

## Bash – Check if variable is set

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To check if a variable is set in Bash Scripting, use `-v var` or `-z ${var}` as an expression with `if` command.

This checking of whether a variable is already set or not, is helpful when you have multiple script files, and the functionality of a script file depends on the variables set in the previously run scripts, etc.

In this tutorial, we shall learn the syntax and usage of the above mentioned expressions with examples.

### Syntax

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Following is the syntax of boolean expressions which check if the variable is set:

```
[[ -v variableName ]]
```

```
[[ -z variableName ]]
```

The boolean expression returns true if the variable is set and false if the variable is not set.

### Example 1 – Check if Variable is Set using `-v`

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In this example, we use `[[ -v variableName ]]` boolean expression to check if variables `a` and `b` are set with the help of [bash if else](#) statement.

### Bash Script File

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```
#!/bin/bash

a=10

# a: variable is set
if [[ -v a ]];
then
    echo "variable named a is already set"
else
    echo "variable a is not set"
fi
```

```
++
# b: variable is not set
if [[ -v b ]];
then
    echo "variable named b is already set"
else
    echo "variable b is not set"
fi
```

### Output

```
~/workspace/bash$ ./bash-if-variable-is-set-example
variable named a is already set
variable b is not set
```

Variable `a` is defined and assigned a value of 10 and hence is set. For variable `b`, we have not defined it by assigning a value. So, we got the result that variable `b` is not set.

### Example 2 – Check if Variable is Set using -z

In this example, we use `[[ -z ${variableName} ]]` boolean expression to check if variables `a` and `b` are set with the help of [bash if else](#) statement.

### Bash Script File

```
#!/bin/bash

a=10

# a: variable is set
if [[ -z ${a} ]];
then
    echo "variable a is not set"
else
    echo "variable named a is already set"
fi

# b: variable is not set
if [[ -z ${b} ]];
then
    echo "variable b is not set"
else
    echo "variable named b is already set"
fi
```

### Output

```
~/workspace/bash$ ./bash-if-variable-is-set-example
variable named a is already set
variable b is not set
```

## Conclusion

In this [Bash Tutorial](#), we have learnt to check if a variable is set or not using `[[ -v variableName ]]` or `[[ -z ${variableName} ]]`, with the help of example Bash scripts.

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