# **JavaScript Variables**

In this tutorial you will learn how to create variables to store data in JavaScript.

## **What is Variable?**

Variables are fundamental to all programming languages. Variables are used to store data, like string of text, numbers, etc. The data or value stored in the variables can be set, updated, and retrieved whenever needed. In general, variables are symbolic names for values.

There are three ways to declare variables in JavaScript: var, let and const.

The var keyword is the older way of declaring variables, whereas the let and const keywords are introduced in [JavaScript ES6](https://www.tutorialrepublic.com/javascript-tutorial/javascript-es6-features.php). The main difference between them is the variables declared with the let and const keywords are **block scoped** ({}), that means they will only be available inside the code blocks ([functions](https://www.tutorialrepublic.com/javascript-tutorial/javascript-functions.php), [loops](https://www.tutorialrepublic.com/javascript-tutorial/javascript-loops.php) and [conditions](https://www.tutorialrepublic.com/javascript-tutorial/javascript-if-else-statements.php)) where they are declared and it sub-blocks, whereas the variables declared with the var keyword are **function scoped** or **globally scoped**, depending on whether they are declared within a function or outside of any function.

We'll learn more about them in upcoming chapters. Now let's take a look at the following example where we've created some variables with the let keyword, and simply used the assignment operator (=) to assign values to them, like this: let varName = value;

#### **Example**

[Try this code »](https://www.tutorialrepublic.com/codelab.php?topic=javascript&file=create-variables)

let name = "Peter Parker"; let age = 21; let isMarried = false;

**Tip:** Always give meaningful names to your variables. Additionally, for naming the variables that contain multiple words, camelCase is commonly used. In this convention all words after the first should have uppercase first letters, e.g. myLongVariableName.

In the above example we have created three variables, first one has assigned with a string value, the second one has assigned with a number, whereas the last one assigned with a boolean value. Variables can hold different types of data, we'll learn about them in later chapter.

In JavaScript, variables can also be declared without having any initial values assigned to them. This is useful for variables which are supposed to hold values like user inputs.

#### **Example**

[Try this code »](https://www.tutorialrepublic.com/codelab.php?topic=javascript&file=declare-variables)

// Declaring Variable let userName; // Assigning value userName = "Clark Kent";

**Note:** In JavaScript, if a variable has been declared, but has not been assigned a value explicitly, is automatically assigned the value undefined.

The const keyword works exactly the same as let, except that variables declared using const keyword cannot be reassigned later in the code. Here's an example:

#### **Example**

[Try this code »](https://www.tutorialrepublic.com/codelab.php?topic=javascript&file=declare-constants)

// Declaring constant const PI = 3.14; console.log(PI); // 3.14 // Trying to reassign PI = 10; // error

**Note:** The let and const keywords are not supported in older browsers like IE10. IE11 support them partially. See the [JS ES6 features](https://www.tutorialrepublic.com/javascript-tutorial/javascript-es6-features.php) chapter to know how to start using ES6 today.

## **Declaring Multiple Variables at Once**

In addition, you can also declare multiple variables and set their initial values in a single statement. Each variable are separated by commas, as demonstrated in the following example:

#### **Example**

[Try this code »](https://www.tutorialrepublic.com/codelab.php?topic=javascript&file=declare-multiple-variables)

// Declaring multiple Variables let name = "Peter Parker", age = 21, isMarried = false; /\* Longer declarations can be written to span multiple lines to improve the readability \*/ let name = "Peter Parker", age = 21, isMarried = false;

## **Naming Conventions for JavaScript Variables**

These are the following rules for naming a JavaScript variable:

* A variable name must start with a letter, underscore (\_), or dollar sign ($).
* A variable name cannot start with a number.
* A variable name can only contain alpha-numeric characters (A-z, 0-9) and underscores.
* A variable name cannot contain spaces.
* A variable name cannot be a JavaScript keyword or a [JavaScript reserved word](https://www.tutorialrepublic.com/javascript-reference/javascript-reserved-keywords.php).

**Note:** Variable names in JavaScript are case sensitive, it means $myvar and $myVar are two different variables. So be careful while defining variable names.