Java Variables

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Java Variables

Variables are containers for storing data values.

In Java, there are different **types** of variables, for example:

- `String` - stores text, such as "Hello". String values are surrounded by double quotes
- `int` - stores integers (whole numbers), without decimals, such as 123 or -123
- `float` - stores floating point numbers, with decimals, such as 19.99 or -19.99
- `char` - stores single characters, such as 'a' or 'B'. Char values are surrounded by single quotes
- `boolean` - stores values with two states: true or false

Declaring (Creating) Variables

To create a variable, you must specify the type and assign it a value:

Syntax

```
type variableName = value;
```

Where *type* is one of Java's types (such as `int` or `String`), and *variableName* is the name of the variable (such as **x** or **name**). The **equal sign** is used to assign values to the variable.

To create a variable that should store text, look at the following example:

Example

Create a variable called **name** of type `String` and assign it the value "**John**":

```
String name = "John";
System.out.println(name);
```

Try it Yourself »

To create a variable that should store a number, look at the following example:

Example

Create a variable called **myNum** of type `int` and assign it the value **15**:

```
int myNum = 15;
System.out.println(myNum);
```

Try it Yourself »

You can also declare a variable without assigning the value, and assign the value later:

Example

```
int myNum;
myNum = 15;
```

Try it Yourself »

Note that if you assign a new value to an existing variable, it will overwrite the previous value:

Example

Change the value of `myNum` from `15` to `20`:

```
int myNum = 15;
myNum = 20;  // myNum is now 20
System.out.println(myNum);
```

Try it Yourself »

Final Variables

If you don't want others (or yourself) to overwrite existing values, use the `final` keyword (this will declare the variable as "final" or "constant", which means unchangeable and read-only):

Example

```
final int myNum = 15;
myNum = 20;  // will generate an error: cannot assign a value to a final variabl
```

Try it Yourself »

A demonstration of how to declare variables of other types:

Example

```
int myNum = 5;
float myFloatNum = 5.99f;
char myLetter = 'D';
boolean myBool = true;
String myText = "Hello";
```

You will learn more about data types in the next section.

Test Yourself With Exercises

Exercise:

Create a variable named `carName` and assign the value `Volvo` to it.

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Submit Answer »

Start the Exercise