

JavaScript Data Types

JavaScript variables can hold many **data types**: numbers, strings, objects and more:

```
var length = 16;           // Number
var lastName = "Johnson"; // String
var x = {firstName:"John", lastName:"Doe"}; // Object
```

The Concept of Data Types

In programming, data types is an important concept.

To be able to operate on variables, it is important to know something about the type.

Without data types, a computer cannot safely solve this:

```
var x = 16 + "Volvo";
```

Does it make any sense to add "Volvo" to sixteen? Will it produce an error or will it produce a result?

JavaScript will treat the example above as:

```
var x = "16" + "Volvo";
```

When adding a number and a string, JavaScript will treat the number as a string.

Example

```
var x = 16 + "Volvo";
```

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Example

```
var x = "Volvo" + 16;
```

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JavaScript evaluates expressions from left to right. Different sequences can produce different results:

JavaScript:

```
var x = 16 + 4 + "Volvo";
```

Result:

20Volvo

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JavaScript:

```
var x = "Volvo" + 16 + 4;
```

Result:

Volvo164

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In the first example, JavaScript treats 16 and 4 as numbers, until it reaches "Volvo".

In the second example, since the first operand is a string, all operands are treated as strings.