

Basic Types

Key concepts

- What is a value? A value is data that we store and manipulate. Examples of values include the number 13 and the name "Mary".
- What is a type? A type helps us group similar values on which common operations can be performed.

The type determines the operations and methods that can be performed on that value. Javascript has six primitive types: `string`, `number`, `undefined`, `null`, `boolean`, and `symbol`. There is also a compound type or `object`.

For example, we can easily multiply the values of the number type in the sequence 13, 3, 67, and 89, but we can't multiply the values in a sequence of strings, such as: "JS", "is", and "cool".

For example, you can retrieve the length of a string. Let's say, you call the `length` method on the `"a"` string:

```
"a".length  
//returns 1
```

Knowing how JavaScript types work is very important. So you can manipulate data and predict how the language will behave.

- Number type examples are as follows:

```
let currentWindSpeed = 50  
let currentTemperature = 81
```

- String type examples are as follows:

```
let city = "Dublin"  
let zip = "94568"
```

- Boolean type examples are as follows:

```
let isWarm = true  
let isWindy = true
```

- `typeof` operator Remember how we used the `typeof` operator for? the `typeof` operator returns a string indicating the type of the evaluated argument or operand.

Here are some ways you can use `typeof`:

```
//this is a string type
console.log(typeof 'pincode') //it's of type

//define a variable and find out it type
let diameter = 4.2
console.log(typeof diameter) //it's of type number

//if try to get the type of an undeclared variable, the expected output
will be: "undefined"
console.log(typeof conifer);

//arrays
const chapters = [1, 2, 4]
typeof chapters === 'object'; //true
console.log(typeof chapters) //it's of type object

//objects
const denmark = {area:42924, population: 5820000}
console.log(typeof denmark) //it's of type object
```

Please refer to the [mdn docs](#) for further information about the `typeof` operator.

More examples:

```
console.log(typeof currentWindSpeed) //string
console.log(typeof city) //number
console.log(typeof isWindy) //boolean
```

Task instructions

Open the basic-types-01 folder and write code in the main.js file.

- Create a variable called `myFirstName`. Assign `myFirstName` a string value that represents your name.
- Create another variable called `numberOfCities`. Assign `numberOfCities` a number value that represents the number of cities you visited last year.
- Create another variable called `havingFun`. Assign `havingFun` a Boolean value that reflects whether you're having fun.

When you're done, check the box to test your code.

Task

- Create 3 variables and set them to the given instructions. Also, type check them with the `typeof` operator in the console.

