

What are Data Types

JS



Number Data Type

- The number data type is used to represent positive or negative numbers with or without decimal place, or numbers written using exponential notation e.g. $1.5e-4$ (equivalent to 1.5×10^{-4}).



Number.js

```
var a = 25; // integer
var b = 80.5; // floating-point
var c = 4.25e+6;
// exponential notation, same as
4.25e6 or 4250000
```



String Data Type

- The string data type is used to represent textual data (i.e. sequences of characters). Strings are created using single or double quotes surrounding one or more characters.



String.js

```
var a = 'Hi there!';  
// using single quotes  
var b = "Hi there!";  
// using double quotes  
var c = 'He said "Hello" and left.';
```



Boolean Data Type

- The Boolean data type can hold only two values: true or false. It is typically used to store values like yes (true) or no (false), on (true) or off (false).
- Boolean values also come as a result of comparisons in a program.



Boolean.js

```
var isReading = true;  
// yes, I'm reading  
var isSleeping = false;  
// no, I'm not sleeping
```



Undefined Data Type

- The undefined data type can only have one value-the special value undefined. If a variable has been declared, but has not been assigned a value, has the value undefined.



Undefined.js

```
var a;  
var b = "Hello World!"  
alert(a) // Output: undefined  
alert(b) // Output: Hello World!
```



Null Data Type

- This is another special data type that can have only one value-the null value. A null value means that there is no value. It is not equivalent to an empty string ("") or 0, it is simply nothing.



Null.js

```
var a = null;  
alert(a); // Output: null  
var b = "Hello World!"  
alert(b); // Output: Hello World!  
b = null;  
alert(b) // Output: null
```



Object Data Type

- The object is a complex data type that allows you to store collections of data.
- An object contains properties, defined as a key-value pair. A property key (name) is always a string, but the value can be any data type.



Object.js

```
var car = {  
  "model": "BMW X3",  
  "color": "White",  
  "doors": 4  
}
```



Array Data Type

- An array is a type of object used for storing multiple values in single variable. Each value (also called an element) in an array has a numeric position, known as its index, and it may contain data of any data type- numbers, strings, booleans, functions, objects, and even other arrays.



Array.js

```
var colors = ["Red", "Yellow",  
"Green", "Orange"];  
  
alert(colors[0]); // Output: Red
```

