

Data types in JavaScript

1. Number
2. String
3. Boolean
4. Null
5. Undefined
- 6.
- 7.

String

→ let name = "Thor";

→ let weapon = "Stormbreaker";

To concatenate two string we use (+).

→ console.log(name + " " + weapon);

→ Thor Stormbreaker.

- We can also store the data into a variable and retrieve it.

let data1 = name + " has " + weapon;

console.log(data1);

// templating way of concatenating strings.

let data2 = `superhero \${name} has
\${weapon}`;

Comment - select the part you want to comment and ctrl + /

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→ use of back ticks `

→ and to print any variable's value we use ``${ }``

``${ var name }`` .or ``${ variable }``

```
let age = 12;
```

```
let data = `my age is ${age}`;  
console.log(data);
```

Mixing html with templating.

Templating makes it easy to mix html and javascript variables.

```
let data3 = <h1>${name}</h1>;  
console.log(data3);
```

Basics String functions

- Length → will give you the length of the string

→ `console.log(weapon.length);`

`console.log("length is" + weapon.length);`

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- `replace()` → To replace something from the string.

```
console.log(weapon.replace("r", "a"));
```

↓
(It will replace r by a from particular string)

It needs two argument one will be replaced and other will replace it.

- `indexOf()` → To find index of particular string.

```
let index = weapon.indexOf("r");  
console.log(index);
```

- `substr()` → It will get you a portion from the string.

```
let sub = weapon.substr(0, 4);  
console.log(sub);
```

It start from 0 and cut till 5th ~~old~~ index and printed the (0-4) part of the string.

In Javascript strings are also treated as array.

"	h	e	l	l	o	"
0	1	2	3	4		

```
Let data = "hello";
```

```
console.log(data[0]);
```

→ h

```
console.log(data[2]);
```

→ e

```
Let data = "hello";
```

```
console.log(data.substr(1, 4));
```

Arrays

Collection of elements of same types.

```
Let data = ["laptop", "mouse", "Keyboard"];
```

```
Let numbers [23, 45, 67, 89];
```

```
console.log(data[1]);
```

→ mouse.

```
Let data2 = ["laptop", true, 23];
```

It will work like an array but it is not an array, ^{array} it has collection of elements in the same type.

To find the length of array
`console.log(data.length);`

• Slice

`console.log(data.slice(0, 2));`
 → Two argument (0 to 1th index) will get printed.)

Control statements

- Loops
- conditions

Loops

↳ help user to execute a particular code or statement multiple times.

Loop contains:-

- (i) start
- (ii) condition

Loops

↳ while

• do while

• for

↳ entry control loop.

Post increment.
Pre increment.

array in loop-

```
let data = [ " " , " " , " " , " " , " " ]
```

```
for (let i = 0; i < data.length; i++)  
{  
  console.log(data[i]);  
}
```

foreach.

```
data.forEach(function (ele)  
{  
  console.log(ele);  
})
```

for each loop travel through the array's
~~to~~ each element.

data.forEach . will
↳ (for data array) forEach loop

OR

```
data.forEach(function (a)  
{  
  console.log(a);  
});
```


Booleans.

true or false

```
Let a = 2;
```

```
Let b = 5;
```

```
console.log(a == 2);
```

```
console.log(a <= b);
```

```
if (a < b)
```

```
{
```

```
  console.log("hello");
```

```
}
```

```
else
```

```
{
```

```
  console.log("invalid");
```

```
}
```

We should don't have to write anything between if and else.

```
Let grade = 70;
```

```
if (grade >= 70)
```

```
{
```

```
  console.log("first class");
```

```
}
```

```
else if ( )
```

```
{
```

```
}
```

```
else
```

```
{
```

```
}
```

Null

Null is provided by user.

Undefined

Undefined is provided by the system.

```
Let data = null;  
console.log(data);
```

```
Let number = Number("1.5");  
console.log(number);
```

NaN — error: when you try to use something that is not a number.