String and String Template

Gajanan Kharat - By CODEMIND Technology

Contact us 8600 2550 66

String

- Introduction
- What is Index
- String methods
- String template - ES6 features

What is String ?

String is a sequence of characters

Index is a position of an element and index always start from 0
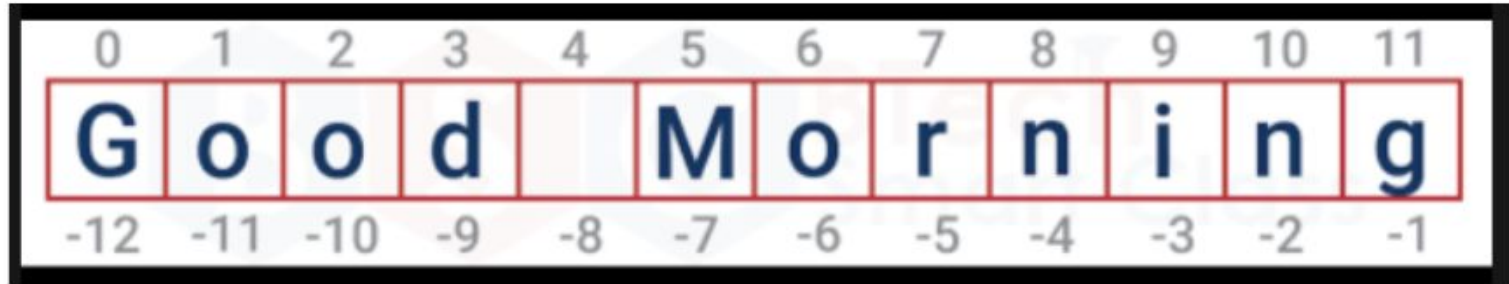
var num1 = 100;

var num2 = "100" + "200"

var firstName = "Mohit";

What is String ?

String is a sequence of characters

Index is a position of an element and index always start from 0

```
var greet = "Good Morning";
```

0	1	2	3	4	5	6	7	8	9	10	11
G	o	o	d		M	o	r	n	i	n	g
-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

greet

```javascript
charAt()
var txt = "Hello World";
console.log(txt.charAt(0))
//prints 'H'


concat()
var str1 = "Hello ";
var str2 = "codingtute!";
console.log(str1.concat(str2))
//prints "Hello codingtute!"


indexOf()
var txt = "Lets find where 'pen'
occurs!";
console.log(txt.indexOf("pen"))
// prints 17


lastIndexOf()
var str = "A dev knows a dev";
var pos = str.lastIndexOf("dev");
//prints 14


replace()
var str = "Hello Dev!";
console.log(str.replace("Dev", "World"))
//prints "Hello World"
```

```javascript
toUpperCase()
var sentence = "CodingTute";
console.log(sentence.toUpperCase());
//prints "CODINGTUTE"


valueOf()
const s = new String('test');
typeof s; // 'object'
s.valueOf(); // 'test'
typeof s.valueOf(); // 'string'


trim()
var str = "   Trim Both Side   ";
console.log(str.trim())
//prints "Trim Both Side"


toString()
var num = 15;
console.log(num.toString())
//prints "15"


includes()
var str = "My name is codingtute.";
console.log(str.includes("name"))
//prints true
```

```javascript
search()
var str = "hello dev!";
console.log(str.search("dev"))
//prints 6

slice(start, end)
var str = "Developers world!";
console.log(str.slice(0, 10))
//prints "Developers"

substr(start, length)
var s = "JavaScript";
console.log(s.substr(4, 6))
//prints "Script"

substring(start, end)
var str = "Hello dev!";
console.log(str.substring(1, 4))
//prints ell

charCodeAt()
var str = "TEST";
str.charCodeAt(0) // returns 84

match()
var str = "lopersum lopersum lopersum
lopersum.";
console.log(str.match(/sum/g))
//prints ["sum", "sum", "sum", "sum"]

split()
var str = "1,2,3,4,5";
console.log(str.split(","))
//prints  ["1", "2", "3", "4", "5"]

toLowerCase()
var sentence = "CodingTute";
console.log(sentence.toLowerCase());
//prints "codingtute"
```

String template - ES6 feature

Use backticks (` `) characters to define string template.

Few usage of string template are:

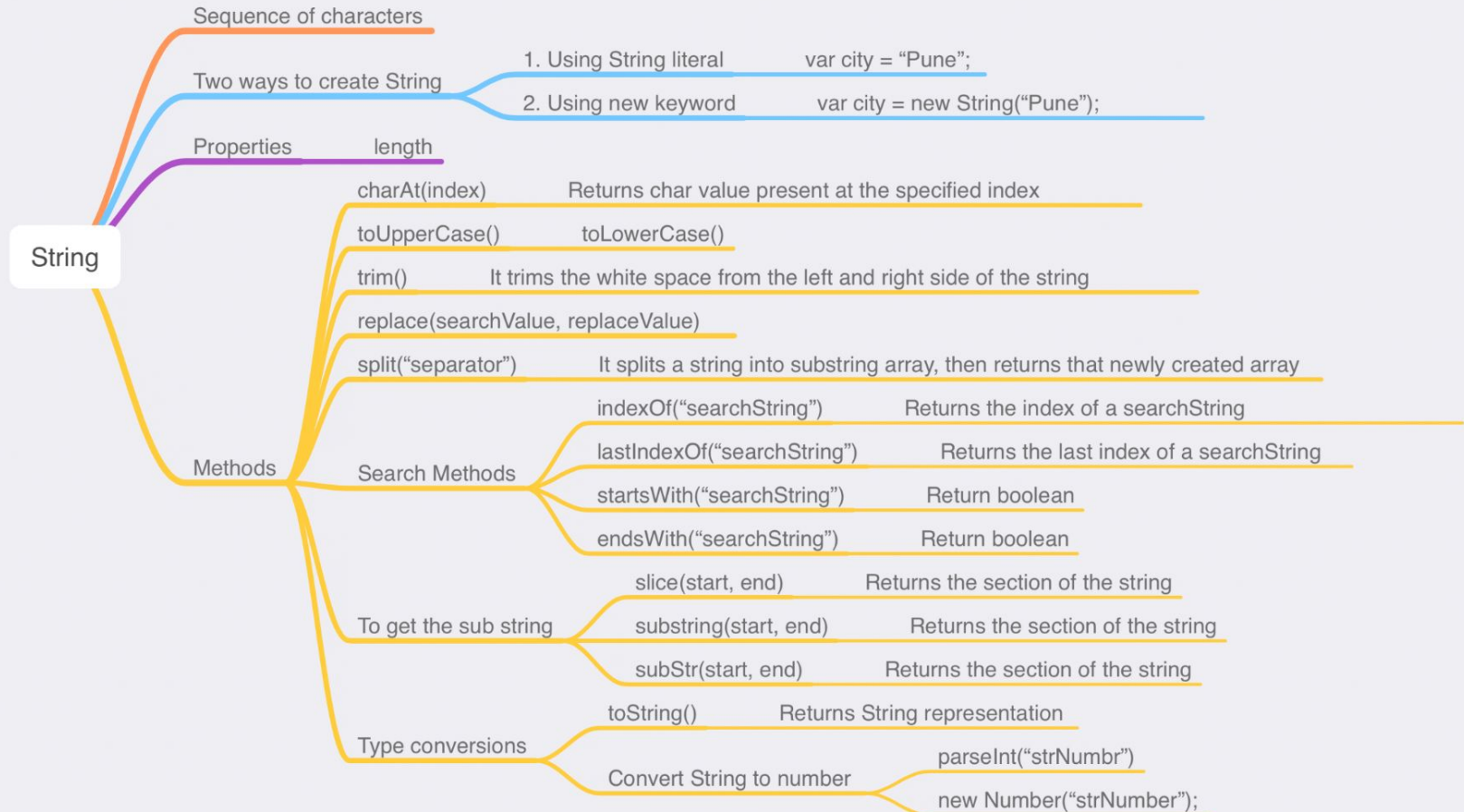1. In a string putting a word with double quote " "

```
var message = `Hello, Very Good Morning - "Sachin" `;
console.log(message);
```

2. Variable Substitution

```
var firstName = "Codemind";
var lastName = "Technology"
console.log(`First Name: ${firstName} and Last Name: ${lastName}`);
```

Note: `` (backticks) is different than ' ' (single quote)

String: A sequence of characters

String

- Sequence of characters
- Two ways to create String
  - 1. Using String literal — var city = "Pune";
  - 2. Using new keyword — var city = new String("Pune");
- Properties — length
- Methods
  - charAt(index) — Returns char value present at the specified index
  - toUpperCase() — toLowerCase()
  - trim() — It trims the white space from the left and right side of the string
  - replace(searchValue, replaceValue)
  - split("separator") — It splits a string into substring array, then returns that newly created array
  - Search Methods
    - indexOf("searchString") — Returns the index of a searchString
    - lastIndexOf("searchString") — Returns the last index of a searchString
    - startsWith("searchString") — Return boolean
    - endsWith("searchString") — Return boolean
  - To get the sub string
    - slice(start, end) — Returns the section of the string
    - substring(start, end) — Returns the section of the string
    - subStr(start, end) — Returns the section of the string
  - Type conversions
    - toString() — Returns String representation
    - Convert String to number
      - parseInt("strNumbr")
      - new Number("strNumber");

String basic assignments using String Template, File → 03_stringBasicAssig01.js

Please have the function with name → stringBasics( ), No arguments and no return is required

1. 'My dream company is "your dream company name" ' log on console
2. Create 3 variables for My Hobbies are: , "Your hobby1", "Your hobby2", "Your hobby3"
    2.1. Log all hobbies on console on same line
    2.2. Sum the total number of characters that is available in hobby1, hobby2 and hobby3 and log on console

Assignments 02: file→ 03_stringHandsOn.js Use string template to log output on console

Given a String : " Hey you are doing good, keep it up ";

Steps: please create a function 'stringHandsOn' with no arguments, no return value, pls don't forget to invoke this function

1. Print the string as it is on console
2. Calculate length of the String
3. Remove the leading and trailing extra spaces and log string on console with it's length
4. Print the total number extra spaces count that is removed in step 3.
5. Print the first and last character on the same line after trim()
6. Print the count of total words available in the string after step 3
7. Print the index of word "good" from the given string
8. Print the substring starting from index 22, using substring() and slice()
9. Check, is string ends with word "up" after step 3?
10. Check is string starts with word "Hey" after trimming → i.e after step 3 output string value

Note: Log the result on console with meaningful message like - "Length of string is: 45"