

Intro to JS - Part 2 - Day 2: Sept 19

Strings

Properties

- **length**: Returns the length of a string.
- **constructor**: Returns a reference to the string's constructor function.

Methods

- **charAt()**: Returns the character at a specified index in a string.
- **concat()**: Joins two or more strings and returns a new string.
- **indexOf()**: Returns the index of the first occurrence of a specified value in a string.
- **lastIndexOf()**: Returns the index of the last occurrence of a specified value in a string.
- **replace()**: Searches a string for a specified value, or a regular expression, and returns a new string where the specified value or regular expression has been replaced with another string.
- **slice()**: Extracts a section of a string and returns a new string.
- **split()**: Splits a string into an array of substrings.
- **toLowerCase()**: Converts a string to lowercase.
- **toUpperCase()**: Converts a string to uppercase.
- **trim()**: Removes whitespace from both ends of a string.

Template Literals & interpolation

Create strings that contain placeholders

Enclosed in backticks (``)

Placeholders are indicated by wrapping them in curly braces (\${ })

```
let firstName = "John";
let lastName = "Doe";
let fullName = `${firstName} ${lastName}`;
```

Regex

For text manipulation and complex search & replace operations

Enclosed in forward slashes (/)

- **/hello/**: Matches the string "hello".
- **/[a-z]/**: Matches any lowercase letter from "a" to "z".
- **/[A-Z]/**: Matches any uppercase letter from "A" to "Z".
- **/[0-9]/**: Matches any digit from 0 to 9.
- **/[a-zA-Z0-9]/**: Matches any alphanumeric character.
- **\d**: Matches any digit.
- **\w**: Matches any word character (alphanumeric character or underscore).
- **\s**: Matches any whitespace character.

Date object

ECMAScript/UNIX epoch

Both use a common reference point (epoch - midnight on January 1, 1970, in Coordinated Universal Time or UTC) to measure time.

The JS Date constructor returns the number of milliseconds since UNIX epoch.

UTC

Coordinated Universal Time: the international standard for timekeeping and the basis for the time zones used around the world. Date objects in JS use UTC.

ISO 8601 format

International standard for representing dates and times used with both UTC and local time. "2023-03-08T03:21:30.689Z"

Creating a new Date Object

```
let currentDate = new Date();
```

Formatting dates

- **toLocaleString()** - local date and time

```
let myDate = new Date();
console.log(myDate.toLocaleString());
console.log(myDate.toLocaleString('en-US'));
console.log(myDate.toLocaleString('en-US', {timeZone:
  'America/Los_Angeles'}));
```

- **toLocaleDateString()** - local date
- **toLocaleTimeString()** - local time

More options

```
let myDate = new Date();
let options = { weekday: 'long', year: 'numeric', month: 'long', day:
  'numeric' };
console.log(myDate.toLocaleDateString('en-US', options));
```