

# JavaScript String Methods - Cheat Sheet

## 1. Character Access Methods

**charAt(index):** Returns the character at a specific index.

Example: `"Hello".charAt(1) → "e"`

**charCodeAt(index):** Returns UTF-16 code of character at index.

Example: `"A".charCodeAt(0) → 65`

**at(index):** Returns character at given index (supports negative index).

Example: `"Hello".at(-1) → "o"`

## 2. Search Methods

**indexOf(value):** Returns first index of value (or -1 if not found).

Example: `"Hello".indexOf("l") → 2`

**lastIndexOf(value):** Returns last index of value.

Example: `"Hello".lastIndexOf("l") → 3`

**includes(value):** Checks if string contains value (true/false).

Example: `"Hello".includes("He") → true`

**startsWith(value):** Checks if string starts with given value.

Example: `"JavaScript".startsWith("Java") → true`

**endsWith(value):** Checks if string ends with given value.

Example: `"JavaScript".endsWith("Script") → true`

## 3. Extracting Methods

**slice(start,end):** Extracts part of string (supports negative).

Example: `"Hello".slice(1,4) → "ello"`

**substring(start,end):** Extracts part of string (no negative).

Example: `"Hello".substring(1,4) → "ello"`

**substr(start,length):** Extracts part of string with length (deprecated but works).

Example: `"Hello".substr(1,3) → "ello"`

## 4. Case Conversion Methods

**toUpperCase():** Converts string to uppercase.

Example: `"Hello".toUpperCase() → "HELLO"`

**toLowerCase():** Converts string to lowercase.

Example: `"Hello".toLowerCase() → "hello"`

**toLocaleUpperCase():** Locale-sensitive uppercase conversion.

Example: `"ß".toLocaleUpperCase("de-DE") → "SS"`

**toLocaleLowerCase():** Locale-sensitive lowercase conversion.

Example: `"İ".toLocaleLowerCase("tr") → "i"`

## 5. Trimming & Padding Methods

**trim():** Removes whitespace from both ends.

**Example:** `" JS ".trim() → "JS"`

**trimStart():** Removes whitespace from start.

**Example:** `" JS".trimStart() → "JS"`

**trimEnd():** Removes whitespace from end.

**Example:** `"JS ".trimEnd() → "JS"`

**padStart(targetLength, padStr):** Pads string at start.

**Example:** `"5".padStart(3, "0") → "005"`

**padEnd(targetLength, padStr):** Pads string at end.

**Example:** `"5".padEnd(3, "0") → "500"`

## 6. Replace Methods

**replace(old,new):** Replaces first match with new value.

**Example:** `"Hello".replace("H", "Y") → "Yello"`

**replaceAll(old,new):** Replaces all matches with new value.

**Example:** `"Hello Hello".replaceAll("Hello", "Hi") → "Hi Hi"`

## 7. Splitting & Joining

**split(separator):** Splits string into array by separator.

**Example:** `"a,b,c".split(",") → ["a","b","c"]`

## 8. Concatenation

**concat(str1,str2,...):** Joins multiple strings.

**Example:** `"Hello".concat(" ", "World") → "Hello World"`

## 9. Other Useful Methods

**repeat(count):** Repeats string count times.

**Example:** `"Hi ".repeat(3) → "Hi Hi Hi "`

**valueOf():** Returns primitive value of string.

**Example:** `"Hello".valueOf() → "Hello"`

**toString():** Converts object to string.

**Example:** `(123).toString() → "123"`

**match(regex):** Matches regex pattern.

**Example:** `"Hello123".match(/\d+/) → ["123"]`

**matchAll(regex):** Returns all matches (iterator).

**Example:** `[... "Hello123".matchAll(/\d/g)] → [{"1"}, {"2"}, {"3"}]`

**search(regex):** Returns index of regex match.

**Example:** `"Hello123".search(/\d/) → 5`

**localeCompare(str):** Compares two strings (lexicographically).

**Example:** `"a".localeCompare("b") → -1`

**normalize():** Returns Unicode normalized form.

**Example:** `"\u00E9".normalize("NFC")` → `"é"`

**fromCharCode():** Converts Unicode to char (static).

**Example:** `String.fromCharCode(65)` → `"A"`

**fromCodePoint():** Converts code point to char (static).

**Example:** `String.fromCodePoint(9731)` → `"■"`

**codePointAt(index):** Returns Unicode code point at index.

**Example:** `"■".codePointAt(0)` → `9731`