<https://nebulaacademy.sharepoint.com/sites/SoftwareEngineeringBootcampV1/Shared%20Documents/Resources/strings.js>

// String Summary

// A set of characters surrounded by quotes " ", ' ', ` `

// String are immutable, which means they cannot be changed.

// Use variables to create new strings

// Backticks (template literals) vs Single or Double Quotes:

// - You can include JavaScript within backticks by using ${}, which is called interpolation

// - Backticks are very literal, until you close them out everything (included new lines will be included)

// - Backticks are very literal, they include new line characters

// var string = `

// `

// //Single or double quotes will see a new line as a statement finisher

// var string2 = '

// '

// Concatenation

// - Joining together of multiple strings

// - Examples:

// - str1 + str2

// - 'Hello' + 'World' = 'Hello World'

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// Indices

// - Each character in a string has an index

// - Index starts at 0 and counts upwards until the end of the string

// - Note: .indexOf() is a method, see methods below

// Getting Specific Characters

// - We can get specific characters by using square brackets

// - Example

// - 'Hello World'[0] = 'H'

// - 'Hello World'[3] = 'l'

// - 'Hello World'[5] = ' '

// - Note: Empty quotes and quots with a space are completely different

// - '' ≠ ' '

// - A common thing is to look for the last character the code for that looks like this:

// - var str = 'Hello World'

// - str[str.length - 1] will equal 'd'

// - We can search for a substring and we will get where it starts as a value

// - Example: 'Hello World'.indexOf('llo') = 2

// Methods

// - Length

// - All strings have a length

// - We can find the length with the length method.

// - Example:

// - 'Hello World'.length = 11

// - Length is usually 1 more than the highest index (because index starts at 0 and length starts at 1)

// - Think, what is the length of "h"?

// - Case

// - We have two methods for changing case

// - 'Hello World'.toUpperCase() equals 'HELLO WORLD'

// - 'Hello World'.toLowerCase() equals 'hello world'

// - Slice

// - We can grab a substring starting from index #1 (inclusive) to index #2 (exclusive)

// - Example:

// - 'Hello World'.slice(6, 11) = World

// - Replace

// - We can replace a substring by using .replace()

// - Example:

// - 'Hello World'.replace('H', 'J') = 'Jello World'

// - 🔥IMPORTANT🔥 the string 'Hello World' has not been changed, it is immutable

// - IndexOf

// - We can find this index using the method .indexOf()

// - For example: 'Hello World'.indexOf('e') will be equal to 1

// - If we search for a character that doesn't exist we will get -1

// - For example: 'Hello World'.indexOf('x') will be equal to -1

// - If we search for a character that appears multiple times we'll get the first instance

// - For example: 'llama'.indexOf('l') will be equal to 0, which is the first instance of the l

// - Capitals and lowercase letters are not the same

// - For example:

// - 'Bobby'.indexOf('B') will be equal to 0

// - 'Bobby'.indexOf('b') will be equal to 2