TRAINING REPORT (TR-102)

DAY: -18 (2 JULY 2024)

JavaScript String Methods: -

JavaScript strings are primitive and immutable: All string methods produce a newstring without altering the original.

- String Length
- String CharAt ()
- String CharCodeAt ()
- String At ()
- String [ ]
- String slice ()
- String SubString ()
- String SubStr ()
- String ToUpperCase ()
- String ToLowerCase ()
- String ConCat ()
- String Trim ()
- String TrimStart ()
- String TrimEnd ()
- String PadStart ()
- String PadEnd ()
- String Repeat ()
- String Replace ()
- String ReplaceAll ()
- String Split ()
- String SearchMethods
- String Templates

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1. **String Length: -** The length property returns the length of a string.

➢ **Extracting String Characters:**

There are 4 methods for extracting string characters:

- The at(*position*) Method
- The charAt(*position*) Method
- The charCodeAt(*position*) Method
- Using property access [] like in arrays

2. **String charAt ():** - The CharAt () method returns the character at a specified index (position) in a string.

3. **String charCodeAt ():** - The CharCodeAt () method returns the character's code at a specified index in a string. The method returns a UTF-16 code(an integer between 0 and 65535).

4. **StringAt (): -** ES2022 introduced the string method at ().

Note: - The at () method is a new addition to JavaScript.

It allows the use of negative indexes while charAt () does not.

Now you can use myString.at (-2) instead of charAt (myString.length-2).

➢ **Extracting String Parts: -**

There are 3 methods for extracting a part of a string:

- Slice (*start*, *end*)
- SubString (*start*, *end*)
- SubStr (*start*, *length*)

5. **JavaScript String slice ():** slice () extracts a part of a string and returns the extracted part in a new string. The method takes 2 parameters: start position, and end position (end not included).

6. **JavaScript String substring ():** substring () is similar to slice (). The

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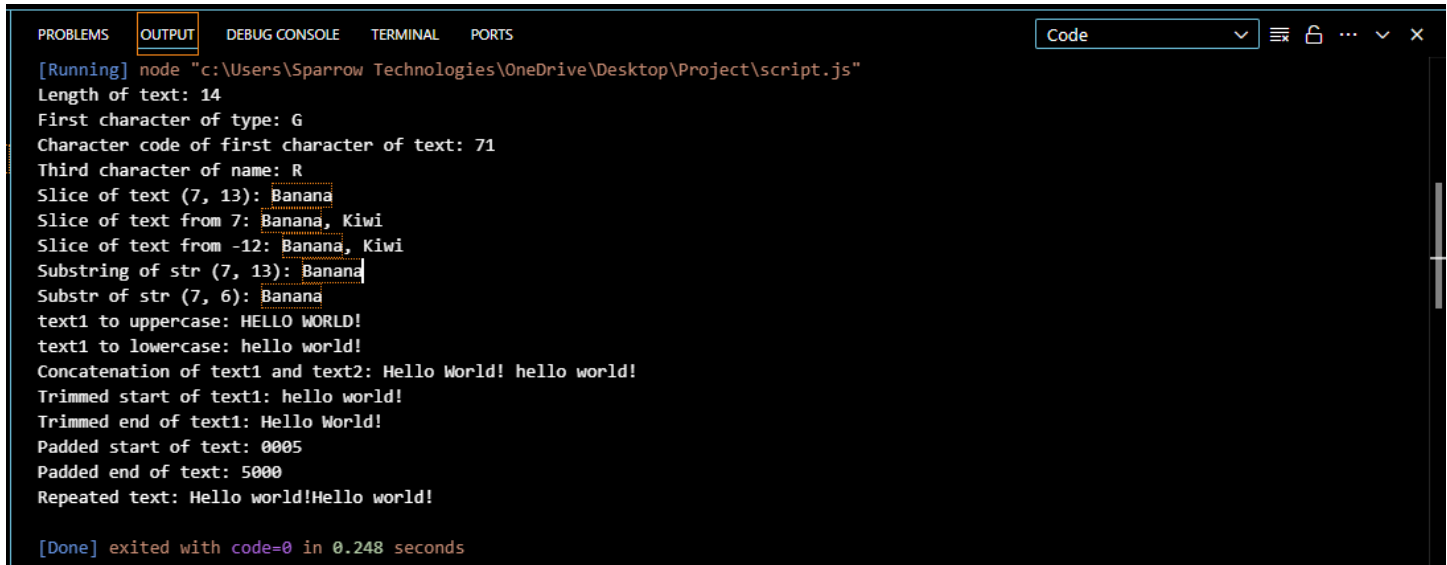difference is that start and end values less than 0 are treated as 0
in substring ().

7. **JavaScript String substr (): substr** () is similar to slice().The difference isthat the second parameter specifies the **length** of the extracted part.

8. **Converting to Upper and Lower Case:** A string is converted to upper case with toUpperCase (). A string is converted to lowercase with toLowerCase ().

9. **JavaScript String concat ():** ConCat () joins two or more strings. The concat() method can be used instead of the plus operator.

10. **JavaScript String trim ():** The trim () method removes whitespace from both sides of a string.

11. **JavaScript String trimStart ():** ECMAScript 2019 added the String method trimStart () to JavaScript.The trimStart() method works like trim(), butremoves whitespace only from the start of a string.

12. **JavaScript String trimEnd ():** ECMAScript 2019 added the string method trimEnd() to JavaScript.The trimEnd() method works like trim(), but removes whitespace only from the end of a string.

13. **JavaScript String padStart ():** The padStart() method pads a string from the start.It pads a string with another string (multiple times) until it reaches a given length.

14. **JavaScript String PadEnd ():** The PadEnd() method pads a string from the end.It pads a string with another string (multiple times) until it reaches a given length.

15. **JavaScript String repeat():** The repeat() method returns a string with several copies of a string.The repeat() method returns a new string.The repeat() method does not change the original string.

PROGRAM: -

```javascript
let text = "GURSHARAN KAUR";
let length = text.length; console.log("Length of text:", length);

let type = "GURSHARAN "; let char1 = type.charAt(0);
console.log("First character of type:", char1);

text = "GURSHARAN";
let char2 = text.charCodeAt(0);
console.log("Character code of first character of text:", char2);

const name = "GURSHARAN "; let letter = name.at(2);
console.log("Third character of name:", letter);

text = "Apple, Banana, Kiwi"; let part1 = text.slice(7, 13);
console.log("Slice of text (7, 13):", part1);

part1 = text.slice(7);
console.log("Slice of text from 7:", part1);

part1 = text.slice(-12);
console.log("Slice of text from -12:", part1);

let str = "Apple, Banana, Kiwi"; let part2 = str.substring(7, 13);
console.log("Substring of str (7, 13):", part2);

part2 = str.substr(7, 6); console.log("Substr of str (7, 6):", part2);

let text1 = "Hello World!";
let text2 = text1.toUpperCase(); console.log("text1 to uppercase:", text2);

text2 = text1.toLowerCase(); console.log("text1 to lowercase:", text2);
```

```javascript
let text3 = text1.concat(" ", text2); console.log("Concatenation of text1 and text2:", text3);
ext2 = text1.trimStart();
console.log("Trimmed start of text1:", text2);

text2 = text1.trimEnd(); console.log("Trimmed end of text1:", text2);

text = "5";
let padded1 = text.padStart(4, "0"); console.log("Padded start of text:", padded1);

let padded2 = text.padEnd(4, "0"); console.log("Padded end of text:", padded2);

text = "Hello world!";
let result = text.repeat(2); console.log("Repeated text:", result);
```

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OUTPUT: -

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS                    Code

[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
Length of text: 14
First character of type: G
Character code of first character of text: 71
Third character of name: R
Slice of text (7, 13): Banana
Slice of text from 7: Banana, Kiwi
Slice of text from -12: Banana, Kiwi
Substring of str (7, 13): Banana
Substr of str (7, 6): Banana
text1 to uppercase: HELLO WORLD!
text1 to lowercase: hello world!
Concatenation of text1 and text2: Hello World! hello world!
Trimmed start of text1: hello world!
Trimmed end of text1: Hello World!
Padded start of text: 0005
Padded end of text: 5000
Repeated text: Hello world!Hello world!

[Done] exited with code=0 in 0.248 seconds
```

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