

About Strings

Module1 – JS - Handout 6

Strings are useful for holding data that can be represented in text form.

Some of the most-used operations on strings are to check their length, to build and concatenate them using the + and += string operators, checking for the existence or location of substrings with the indexOf() method, or extracting substrings with the substring() method

Creating Strings

Strings can be created as primitives, from string literals, or as objects, using the String() constructor:

```
const string1 = "A string primitive";  
const string2 = 'Also a string primitive';  
const string3 = `Yet another string primitive`;  
const string4 = new String("A String object");
```

```
//strings example  
const name = 'Peter';  
const name1 = "Jack";  
const result = `The names are ${name} and ${name1}`;
```

Accessing String Characters

```
const a = 'hello';  
console.log(a[1]); // "e"  
console.log(a.charAt(1)); // "e"
```

Immutability of Strings

Javascript String is immutable, which means once a String object is assigned to String reference the object value cannot be changed. However, we can still assign a new object to a String reference.

```
var myVar = "Hello World";  
myVar.toUpperCase(); // does not change the value of myVar
```

```
var myVarUpperCase = myVar.toUpperCase(); // this is one way
```

```
myVar = myVar.toUpperCase(); // better way
```

String properties and methods

- *length*
Returns the number of characters in a string
- *replace()*
replace a substring/pattern in the string
- *indexOf()*
Returns the first index of occurrence of a value
- *lastIndexOf()*
Returns the last index of occurrence of a value
- *startsWith()*
Checks if a string begins with a specified string
- *endsWith()*
Checks if a string ends with a specified string
- *toUpperCase()*
Returns uppercase of a string

- `toLowerCase()`
Returns lowercase representation of a string
- `includes()`
Checks if given string is found inside a string
- `repeat()`
Returns a string by repeating it given times
- `charAt()`
Returns character at a specified index in string
- `charCodeAt()`
Returns Unicode of the character at given index
- `fromCharCode()`
Returns a string from the given UTF-16 code units
- `substring()`
Returns a specified part of the string
- `search()`
Searches for specified value in the string
- `replaceAll()`
Returns string by replacing all matching patterns
- `concat()`
Concatenates the arguments to the calling string
- `split()`
Returns the string divided into list of substring
- `trim()`
Removes whitespace from both ends of a string

- `slice()`
Extracts and returns a section of the string