3 Pillars – ASSIGNMENT

DAY - 2

Exercise: Level 1

1. Declare a variable named challenge and assign it to an initial value **'30 Days Of JavaScript'**.

```
let challenge = "30 Days Of JavaScript";
```

2. Print the string on the browser console using **console.log()**

```
console.log(challenge);
```

3. Print the **length** of the string on the browser console using *console.log()*

```
console.log(challenge.length);
```

4. Change all the string characters to capital letters
   using **toUpperCase()** method

```
console.log(challenge.toUpperCase());
```

5. Change all the string characters to lowercase letters
   using **toLowerCase()** method

```
console.log(challenge.toLowerCase());
```

6. Cut (slice) out the first word of the string
   using **substr()** or **substring()** method

```
console.log(challenge.substr(0,2));
```

7. Slice out the phrase *Days Of JavaScript* from *30 Days Of JavaScript*.

```
console.log(challenge.substr(3));
```

8. Check if the string contains a word **Script** using **includes()** method

```
challenge.includes("Script");
```

9. Split the **string** into an **array** using **split()** method

```
challenge.split();
```

10. Split the string 30 Days Of JavaScript at the space using **split()** method

```
challenge.split(" ");
```

11. 'Facebook, Google, Microsoft, Apple, IBM, Oracle, Amazon' **split** the string at the comma and change it to an array.

```
let string = ”Facebook,Google,Microsoft,Apple,IBM,Oracle,
Amazon";

string.split(",");
```

12. Change 30 Days Of JavaScript to 30 Days Of Python using **replace()** method.

```
challenge.replace(“JavaScript”,"Python");
```

13. What is character at index 15 in '30 Days Of JavaScript' string?
    Use **charAt()** method.

```
challenge.charAt(15);
```

14. What is the character code of J in '30 Days Of JavaScript' string
    using **charCodeAt()**

```
var x = challenge.indexOf('J');
challenge.charCodeAt(x);
```

15. Use **indexOf** to determine the position of the first occurrence of **a** in 30 Days Of JavaScript

```
challenge.indexOf('a');
```

16. Use **lastIndexOf** to determine the position of the last occurrence of **a** in 30 Days Of JavaScript.

```
challenge.lastIndexOf('a');
```

17. Use **indexOf** to find the position of the first occurrence of the word **because** in the following sentence:**'You cannot end a sentence with because because because is a conjunction'**

```
let newString = 'You cannot end a sentence with because
because because is a conjunction’;
newString.indexOf("because");
```

18. Use **lastIndexOf** to find the position of the last occurrence of the word **because** in the following sentence:**'You cannot end a sentence with because because because is a conjunction'**

```
var sentence = "You cannot end a sentence with because
because because is a conjunction";
sentence.lastIndexOf('because');
```

19. Use **search** to find the position of the first occurrence of the word **because** in the following sentence:**'You cannot end a sentence with because because because is a conjunction'**

```
sentence.search('because');
```

20. Use **trim()** to remove any trailing whitespace at the beginning and the end of a string.E.g ' 30 Days Of JavaScript '.

```
var string = ' 30 Days Of JavaScript ';
string.trim();
```

21. Use **startsWith()** method with the string *30 Days Of JavaScript* and make the result true

```
string.startsWith(" 3");
```

22. Use **endsWith()** method with the string *30 Days Of JavaScript* and make the result true

```
string.endsWith("t ");
```

23. Use **match()** method to find all the **a**'s in 30 Days Of JavaScript

```
string.match(/a/gi);
```

24. Use **concat()** and merge '30 Days of' and 'JavaScript' to a single string, '30 Days Of JavaScript'

```
var string1 = "30 Days of" ;
string1.concat(" JavaScript");
```

25. Use **repeat()** method to print 30 Days Of JavaScript 2 times

```
var word = '30 Days of JavaScript';
word.repeat(2);
```

Exercise: Level 2

1. Using console.log() print out the following statement:

   ```
   The quote 'There is no exercise better for the heart than reaching down and lifting people up.' by John Holmes teaches us to help one another.
   ```

```
console.log("The quote 'There is no exercise better for the heart than reaching down and lifting people up.' by\ John Holmes teaches us to help one another.");
```

2. console.log("The quote 'There is no exercise better for the heart than reaching down and lifting people up.' by\ John Holmes teaches us to help one another.") Using console.log() print out the following quote by Mother Teresa:

   ```
   "Love is not patronizing and charity isn't about pity, it is about love. Charity and love are the same -- with charity you give love, so don't just give money but reach out your hand instead."
   ```

```
console.log("Love is not patronizing and charity isn't about pity, it is about love. Charity and love are the same -- with charity you give love, so don't just give money but reach out your hand instead.");
```

3. Check if typeof '10' is exactly equal to 10. If not make it exactly equal.

```
var x  = 10 ;
if (typeof x == typeof '10')   console.log("Equal") ;
else   console.log(parseInt('10'));
```

4. Check if parseFloat('9.8') is equal to 10 if not make it exactly equal with 10.

```
if(parseFloat('9.8') == 10)  console.log("Equal");
 else   Math.round(parseFloat('9.8'));
```

5. Check if 'on' is found in both python and jargon

```
"python".search('on') ;
 "jargon".search('on');
```

6. *I hope this course is not full of jargon*. Check if *jargon* is in the sentence.

```
var string = "I hope this course is not full of jargon.";
string.search("jargon");
```

7. Generate a random number between 0 and 100 inclusively.

```
Math.random() *100;
```

8. Generate a random number between 50 and 100 inclusively.

```
function getRandomInt (min, max) {
    return Math.floor(Math.random() * (max - min + 1)) + min;
}
getRandomInt(50,100);
```

9. Generate a random number between 0 and 255 inclusively.

```
getRandomInt(0,255);
```

10. Access the 'JavaScript' string characters using a random number.

```
var str = "JavaScript";
 str[getRandomInt(0,9)];
```

11. Use console.log() and escape characters to print the following pattern.

```
1 1 1 1 1
2 1 2 4 8
3 1 3 9 27
4 1 4 16 64
5 1 5 25 125
```

```
console.log("1\t 1\t 1\t 1\t 1\n2\t 1\t 2\t 4\t 8\n3\t 1\t
3\t 9\t 27\n4\t 1\t 4\t 16\t 64\n5\t 1\t 5\t 25\t 125\n");
```

12. Use **substr** to slice out the phrase **because because because** from the following sentence:**'You cannot end a sentence with because because because is a conjunction'**

```
var str = 'You cannot end a sentence with because because
because is a conjunction';
str.substr(31,23);
```

Exercises: Level 3

1. 'Love is the best thing in this world. Some found their love and some are still looking for their love.' Count the number of word **love** in this sentence.

```
let str = "Love is the best thing in this world. Some found
their love and some are still looking for their love.";
const arr = str.match(/love/gi);
console.log(arr.length);
```

2. Use **match()** to count the number of all **because** in the following sentence:'**You cannot end a sentence with because because because is a conjunction**'

```
var str = 'You cannot end a sentence with because because
because is a conjunction';
var arr = str.match(/because/gi);
arr.length;
```

3. Clean the following text and find the most frequent word (hint, use replace and regular expressions).

```
    const sentence = '%I $am@% a %tea@cher%, &and& I lo%#ve %te@a@ching%;.
The@re $is no@th@ing; &as& mo@re rewarding as educa@ting &and&
@emp%o@weri@ng peo@ple. ;I found tea@ching m%o@re interesting tha@n any
ot#her %jo@bs. %Do@es thi%s mo@tiv#ate yo@u to be a tea@cher!? %Th#is
30#Days&OfJavaScript &is al@so $the $resu@lt of &love& of tea&ching'
```

```
sentence.replace(/%|@|#|&|\$|;/g,"");
```

4. Calculate the total annual income of the person by extracting the numbers from the following text. 'He earns 5000 euro from salary per month, 10000 euro annual bonus, 15000 euro online courses per month.'

```
let txt = 'He earns 5000 euro from salary per month, 10000
euro annual bonus, 15000 euro online courses per month.';
let numbers = txt.match(/\d+/g);
let sum = 0; numbers.forEach( (num) => {
                    sum =sum+parseInt(num);
});
console.log(sum);
```