Bootcamp: Javascript development Boot Camp
Project: Simple Exercises
Project Type: Easy
Requirement : Javascript

Note to mentors: Please ask campers to create a separate folder and file. Each challenge should have an index.html and script.js file.

Note to Campers: Only Git URLs are accepted. You cannot solve the problem, please do not hesitate to ask from your colleagues and mentors. Some of the exercises might be challenging but give your best to get as close as possible.

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1. Write a function that simply repeats the string based on given number of times. The function accepts two argument: a string and a number.
   repeatString('Ha', 2) // returns 'HaHa'

   Make sure your function checks second number is a number. For example if a second entry is “5”, your function has to change it to 5.
   Also try to write it with Arrow function syntax.
   Hints:
   - You need a loop.
   - Create a variable to hold the string you're going to return, create a loop that repeats the given number of times and add the given string to the result on each loop.
   - Have you heard of concatenation?

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2. Implement a function that takes 2 integers and returns the sum of every number between(and including) them. For example if user enters 20 and 25, our function needs to calculate 20+21+22+23+24+25 and return the result.
   You can use loop. You can also use recursive calls too.
   Hints:
   Think about how you would do this on pen and paper (Desk checking) and then turn it to code.
   - Make sure you pay attention to the function parameters
   - Create a variable to hold the final sum and initialize to zero.
   - loop through the given numbers
   - On each iteration add the number to the sum variable.

- return the sum after finishing the loop

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3. Write a function to detect palindrome. A palindrome is a string that is spelled the same both forwards and backwards, usually without considering punctuation or word breaks and return true or false. For example:

```
palindromes('racecar') // true
palindromes('jungle') // false
```

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4. You are given an array of objects that represent events with a performer and an event title that looks like this:

```
const events = [
  {
       performer: 'Joe kelly',
       title: 'Nirvana of 21'
  },
  {
       performer: 'Misa Ro',
       tile: 'Days Go By'
  }
]
```

Your job is to write two functions that takes the array and returns an array of performers and titles:

```
getThePreformers(events) // ['Joe kelly','Misa Ro']
getTheTitles(events) // ['Nirvana of 21','Days Go By']
```

Hints: You can use built-in Javascript to do the work!

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5. Write function to Implement the legendary Caesar cipher.
   What is Caesar cipher?

   In cryptography, a Caesar cipher, also known as Caesar's cipher, the shift cipher, Caesar's code or Caesar shift, is

one of the simplest and most widely known encryption techniques. It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions down the alphabet. For example, with a left shift of 3, D would be replaced by A, E would become B, and so on. The method is named after Julius Caesar, who used it in his private correspondence.(https://en.wikipedia.org/wiki/Caesar_cipher)

Write a function that takes a string to be encoded and a shift factor and then returns the encoded string. See examples blow:

```
caesar('A', 1) // simply shifts the letter by 1: returns 'B'

caesar('Hello, World!', 5) //returns 'Mjqqt, Btwqi!'

caesar('Z', 1) // returns 'A'
```

Hints:

- Use charCodeAt and fromCharCode to work with alphabets.
- You don not need to work on punctuations.

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6. Write decoder for the Caesar cipher above. For example:
caesar('Mjqqt, Btwqi!', 5) //returns 'Hello, World!'