Bootcamp: Javascript development Boot Camp
Project: Small coding practices
Project Type: Warm up
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 can not 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.

1- Write a loop that makes calls to console.log to output the following triangle where N should be less than 10:

1
12
123
1234
12345
123456
1234567
12345678
123456789

2- Write a function to that accepts a number and change it to integer.
For example:

```
convertToInt(6.0);  // Output to console: 6
convertToInt(NaN);  // Output to console: 0
convertToInt(null);  // Output to console: 0
convertToInt(12);  // Output to console: 12
convertToInt(-1);  // Output to console: -1
convertToInt("23") // Output to console: 23
convertToInt(false) // Output to console: 23
```

In addition if Boolean value given as input your function should throw and exception (**Please refer to documentation**).

3- Create a function to accept a string and return the string with all characters in small. In addition use arrow function syntax to write it.

4- Create a function to accept a string and convert it to an array without using any built-in function.

5- Create a function to accept a string and return the size of it.

6- Create a function to accept a string and return the size of its smallest word. Use loops and arrays to save the problem.

7- Interview Question: What is Call Stack? Show it with a small example.

8- Write a function to accept a n integer and check it is even (Hint: use % operator). Function should only accept integer.

9- Write a program to check if given year is a leap year or not and it should return false if not and true otherwise.

10- write a function increase() and decrease() which increase variable product_count variable by one and decrease it by one. product_count can not be greater than equal given argument to increase. For example increase(12) can increase product_count to 12 and not more than that. Also product_count can not be less than 0.

11- Define a function to accept a javascript object literal as follow and create a log message to the console with date and time of the print (Hints:
1- **Object**
2- **Date and time**).

```
let messageBag = {
exceptions:
    1: {
        num: 1009
        message: "Network Connection Error!"
    },
    2: {
        num: 1002
        message: "User is not logged-in."
    }
}
```

The output should be:

```
prettyPrintMessageLog(messageBag)
// Output in console will be:
//2020-12-01 12:10:34 Error Number 1009 : Network
Connection Error!

//2020-12-01 12:10:34 Error Number 1002 : User is not
logged-in.
```

12- Given the following json:

```
[
    {
        "id": "0175d1f0-a8c6-41bf-8d02-df5734d829a4",
        "title": "ocean at dusk",
        "color": "#00c4e2",
        "rating": 5
    },
    {
        "id": "83c7ba2f-7392-4d7d-9e23-35adbe186046",
        "title": "lawn",
        "color": "#26ac56",
        "rating": 3
    },
    {
        "id": "a11e3995-b0bd-4d58-8c48-5e49ae7f7f23",
        "title": "bright red",
```

```
      "color": "#ff0000",
      "rating": 0
   }
]
```

Read the json and print the values in console. Please note that you need to store above json in a string first and then convert it to an iterable. (Hint: Json and Json methods)