Assignment1

A. Part 1: Coding Questions (7.5 Grade):

1. Convert the string "123" to a number and add 7. (0.5 Grade)
    - Output Example: 130
2. Check if the given variable is falsy and return "Invalid" if it is. (0.5 Grade)
    - Input Example: 0
    - Output Example**:** "Invalid"
3. Use for loop to print all numbers between 1 and 10, skipping even numbers using continue (0.5 Grade)
    - Output Example:1, 3, 5, 7, 9
4. Create an array of numbers and return only the even numbers using **filter** method. (0.5 Grade)
    - Input Example: [1, 2, 3, 4, 5]
    - Output Example: [2,4]
5. Use the spread operator to merge two arrays, then return the merged array. (0.5 Grade)
    - Input Example: [1, 2, 3], [4, 5, 6]
    - Output Example: [1, 2, 3, 4, 5, 6]
6. Use a switch statement to return the day of the week given a number (1 = Sunday …., 7 = Saturday). (0.5 Grade)
    - Input Example: 2
    - Output Example: “Monday”
7. Create an array of strings and return their lengths using **map** method (0.5 Grade)
    - Input**:** ["a", "ab", "abc"]
    - Output Example**:** [1, 2, 3]
8. Write a function that checks if a number is divisible by 3 and 5. (0.5 Grade)
    - Input Example: 15
    - Output Example: “Divisible by both”
9. Write a function using arrow syntax to return the square of a number (0.5 Grade)
    - Input Example: 5
    - Output Example: 25
10. Write a function that destructures an object to extract values and returns a formatted string. (0.5 Grade)
    - Input Example: const person = {name: 'John', age: 25}
    - Output Example: 'John is 25 years old'
11. Write a function that accepts multiple parameters (two or more) and returns their sum. (0.5 Grade)
    - Input Example: 1, 2, 3, 4, 5
    - Output Example: 15
12. Write a function that returns a promise which resolves after 3 seconds with a 'Success' message. (0.5 Grade)
    - Output Example: “Success”
13. Write a function to find the largest number in an array. (0.5 Grade)
    - Input Example: [1, 3, 7, 2, 4]
    - Output Example: 7
14. Write a function that takes an object and returns an array containing only its keys. (0.5 Grade)
    - Input Example: name: "John", age: 30}
    - Output Example: ["name", "age"]
15. Write a function that splits a string into an array of words based on spaces. (0.5 Grade)
    - Input: "The quick brown fox"
    - Output: ["The", "quick", "brown", "fox"]

B. Part 2: Essay Questions (2.5 Grade):

1. What is the difference between **forEach** and **for...of**? When would you use each? (0.5 Grade)
2. What is **hoisting** and what is the **Temporal Dead Zone** (TDZ)? Explain with examples. (0.5 Grade)
3. What are the main differences between **==** and **===**? (0.5 Grade)
4. Explain how **try-catch** works and why it is important in async operations. (0.5 Grade)
5. What’s the difference between type **conversion** and **coercion**? Provide examples of each. (0.5 Grade)

Assignment1

C. Part3: Bonus (2 Grades):

How to deliver the bonus?

1- Solve the problem Counter II on LeetCode

2- Inside your assignment folder, create a SEPARATE FILE and name it “bonus.js”

3- Copy the code that you have submitted on the website inside ”bonus.js” file