



Intro to JavaScript Week 3 Coding Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

Instructions: In VS Code, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your JavaScript project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

Coding Steps:

1. Create an array called `ages` that contains the following values: 3, 9, 23, 64, 2, 8, 28, 93.
 - a. Programmatically subtract the value of the first element in the array from the value in the last element of the array (do not use numbers to reference the last element, find it programmatically, `ages[7] - ages[0]` is not allowed). Print the result to the console.
 - b. Add a new age to your array and repeat the step above to ensure it is dynamic (works for arrays of different lengths).
 - c. Use a loop to iterate through the array and calculate the average age. Print the result to the console.
2. Create an array called `names` that contains the following values: 'Sam', 'Tommy', 'Tim', 'Sally', 'Buck', 'Bob'.
 - a. Use a loop to iterate through the array and calculate the average number of letters per name. Print the result to the console.



- b. Use a loop to iterate through the array again and concatenate all the names together, separated by spaces, and print the result to the console.
3. How do you access the last element of any array?
4. How do you access the first element of any array?
5. Create a new array called nameLengths. Write a loop to iterate over the previously created names array and add the length of each name to the nameLengths array.
For example:

```
namesArray = ["Kelly", "Sam", "Kate"] //given this array  
nameLengths = [5, 3, 4] //create this new array
```

6. Write a loop to iterate over the nameLengths array and calculate the sum of all the elements in the array. Print the result to the console.
7. Write a function that takes two parameters, word and n, as arguments and returns the word concatenated to itself n number of times. (i.e. if I pass in 'Hello' and 3, I would expect the function to return 'HelloHelloHello').
8. Write a function that takes two parameters, firstName and lastName, and returns a full name (the full name should be the first and the last name separated by a space).
9. Write a function that takes an array of numbers and returns true if the sum of all the numbers in the array is greater than 100.
10. Write a function that takes an array of numbers and returns the average of all the elements in the array.
11. Write a function that takes two arrays of numbers and returns true if the average of the elements in the first array is greater than the average of the elements in the second array.
12. Write a function called willBuyDrink that takes a boolean isHotOutside, and a number moneyInPocket, and returns true if it is hot outside and if moneyInPocket is greater than
Create a function of your own that solves a problem. In comments, write what the function does and why you created it.

Screenshots of Code:



```
1 // Write a function that takes a number and returns true if it is odd and false if it is even.
2
3 // Example:
4 // isOdd(1) // true
5 // isOdd(2) // false
6
7 // Write a function that takes a number and returns true if it is even and false if it is odd.
8
9 // Example:
10 // isEven(1) // false
11 // isEven(2) // true
12
13 // Write a function that takes a number and returns true if it is a prime number and false if it is not a prime number.
14
15 // Example:
16 // isPrime(1) // false
17 // isPrime(2) // true
18 // isPrime(3) // true
19 // isPrime(4) // false
20 // isPrime(5) // true
21
22 // Write a function that takes a string and returns true if it is a palindrome and false if it is not a palindrome.
23
24 // Example:
25 // isPalindrome('racecar') // true
26 // isPalindrome('hello') // false
27
28 // Write a function that takes two strings and returns true if they are anagrams and false if they are not.
29
30 // Example:
31 // isAnagram('listen', 'silent') // true
32 // isAnagram('hello', 'world') // false
33
34 // Write a function that takes a number and returns true if it is an Armstrong number and false if it is not.
35
36 // Example:
37 // isArmstrong(153) // true
38 // isArmstrong(123) // false
39
40 // Write a function that takes a number and returns true if it is a happy number and false if it is not.
41
42 // Example:
43 // isHappy(1) // true
44 // isHappy(2) // false
45
46 // Write a function that takes a year and returns true if it is a leap year and false if it is not.
47
48 // Example:
49 // isLeapYear(2020) // true
50 // isLeapYear(2021) // false
51
52 // Write a function that takes a string and returns true if it contains only vowels and false if it contains any consonants.
53
54 // Example:
55 // isVowel('aeiou') // true
56 // isVowel('bcdfghjklmnpqrstvwxyz') // false
57
58 // Write a function that takes a string and returns true if it contains only consonants and false if it contains any vowels.
59
60 // Example:
61 // isConsonant('bcdfghjklmnpqrstvwxyz') // true
62 // isConsonant('aeiou') // false
```



Identify your project's root folder to open source files in Visual Studio Code and sync changes. [Learn more >](#)

Set root folder

Don't show again

Welcome

Elements

Console

Sources

Network

+

+

1

⚙️

⋮

✖

top

Filter

Default levels

1

⚙️

Ages Array: 3,9,23,64,2,8,28,93

Week3CodingAssignment.js:3

First element of array: 3

Week3CodingAssignment.js:8

Last element of array: 93

Week3CodingAssignment.js:11

Subtraction solution (93 - 3 =): 90

Week3CodingAssignment.js:16

Array after adding new age: 3,9,23,64,2,8,28,93,42

Week3CodingAssignment.js:22

Subtraction solution after adding new age (42 - 3 =): 39

Week3CodingAssignment.js:28

4 elements in ages array: 3,9,23,64,2,8,28,93,42

Week3CodingAssignment.js:34

Calculated average of ages array (value of elements added together 272 / 9 number of elements): 30.222222222222222

Week3CodingAssignment.js:38

Names Array: Sam,Tommy,Tin,Sally,Buck,Bob

Week3CodingAssignment.js:45

Calculated average number of letters per name in the names array (total number of letters 23 / 6 number of names): 3.8333333333333335

Week3CodingAssignment.js:52

Names together: Sam Tommy Tin Sally Buck Bob

Week3CodingAssignment.js:57

Accessed and removed last name in ages array: 42

Week3CodingAssignment.js:60

Accessed and removed last name in names array: Bob

Week3CodingAssignment.js:63

Accessed and removed first name in ages array: 3

Week3CodingAssignment.js:64

Accessed and removed first name in names array: Sam

Week3CodingAssignment.js:65

Names Length Array: 3,5,3,5,4,3

Week3CodingAssignment.js:78

Calculated sum of all the elements in the nameslength array: 23

Week3CodingAssignment.js:77

HelloHelloHello

Week3CodingAssignment.js:84

Full name Function: Jacob Studer

Week3CodingAssignment.js:92

Total of ages array after removing the first and last elements used to determine if the sum of all numbers is greater than 100: 227

Week3CodingAssignment.js:99

true

Week3CodingAssignment.js:103

The total average of all elements in the nameslengths array: (avg): 3.8333333333333335

Week3CodingAssignment.js:116

ages array current average of total: (avg1) 32.42857142857143

Week3CodingAssignment.js:129

true

Week3CodingAssignment.js:136

true

Week3CodingAssignment.js:145

Set Alarm!

Week3CodingAssignment.js:153

URL to GitHub Repository: <https://github.com/JacobStuder/Promineo-Tech-Week-3-coding-Assignment.git>