

Intro to JavaScript Week 3 Coding Assignment

Points possible: 75

URL to Your GitHub Repository:

<https://github.com/angelcruz9/promineotech/commit/80634300991c23b3deb61ab110b4ca68fb53b177>

URL to Your Coding Assignment Video:

I'm currently out of the country and i do not have access to good internet to download a screen recorder or upload the video sorry will update my assignment once its done

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:

- Create an array called `ages` that contains the following values: 3, 9, 23, 64, 2, 8, 28, 93.
 - 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.
 - Add a new age to your array and repeat the step above to ensure it is dynamic (works for arrays of different lengths).
 - Use a loop to iterate through the array and calculate the average age. Print the result to the console.
- Create an array called `names` that contains the following values: 'Sam', 'Tommy', 'Tim', 'Sally', 'Buck', 'Bob'.
 - Use a loop to iterate through the array and calculate the average number of letters per name. Print the result to the console.
 - 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.
- How do you access the last element of any array?
- How do you access the first element of any array?
- 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
```

- 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.
- 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').

- 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).
- 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.
- Write a function that takes an array of numbers and returns the average of all the elements in the array.
- 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.
- 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 10.50.
- 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:

The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left shows a project named 'PROJECT2' with files 'index.html' and 'index.js'. The main editor area displays the content of 'index.js'. The code in 'index.js' includes comments and JavaScript logic for creating an array, calculating differences, and finding averages. Below the code editor, the 'PROBLEMS' panel shows three SonarLint issues for 'index.html': missing 'lang' attributes, missing title tag, and missing DOCTYPE declaration. The status bar at the bottom indicates the current file is 'index.html' at line 161, column 72, with 3 issues.

```
1 // Create an array called ages that contains the following values: 3, 9, 23, 64, 2, 8, 28, 93.
2 let numbers = [3, 9, 23, 64, 2, 8, 28, 93];
3
4 //• Programmatically subtract the value of the first element in the array from the value in the
5 //last element of the array
6 //do not use numbers to reference the last element, find it programmatically,
7 //ages[7] - ages[0] is not allowed. Print the result to the console.
8 let lengthOfArr = numbers.length;
9 const num1 = numbers[lengthOfArr - numbers.length];
10 const num2 = numbers[lengthOfArr - 1];
11 let differenceOf = num1 - num2;
12 console.log(differenceOf);
13 //• Add a new age to your array
14 //and repeat the step above to ensure it is dynamic (works for arrays of different lengths).
15 let newAge = numbers.push(67);
16 let num3 = numbers[newAge - 1];
17 let num4 = numbers[newAge - numbers.length];
18 console.log(num4 - num3);
19 //Use a loop to iterate through the array and calculate the average age.
20 //Print the result to the console.
21 let count = 0;
22 let total = 0;
23 for (const element of numbers){
24   if (numbers !== undefined){
25     count++;
26     total += element;
```

PROBLEMS 3 OUTPUT DEBUG CONSOLE TERMINAL Filter (e.g. text, **/*.ts, !**/node_modules/**)

- ⚠ Add "lang" and/or "xml:lang" attributes to this "<html>" element. sonarlint(Web:S5254) [Ln 1, Col 1]
- ⚠ Add a <title> tag to this page. sonarlint(Web:PageWithoutTitleCheck) [Ln 1, Col 1]
- ⚠ Insert a <!DOCTYPE> declaration to before this <html> tag. sonarlint(Web:DoctypePresenceCheck) [Ln 1, Col 1]

master* 0 3 Ln 161, Col 72 Tab Size: 4 UTF-8 LF JavaScript

EXPLORER

PROJECT2

index.html

index.js

3, U

U

JS index.js > ...

26 total += element;

27 }

28 }

29 let avg = total / count;

30 console.log(avg);

31 //Create an array called names that contains the following values:

32 // 'Sam', 'Tommy', 'Tim', 'Sally', 'Buck', 'Bob'.

33 let names = ['Sam', 'Tommy', 'Tim', 'Sally', 'Buck', 'Bob'];

34 //Use a loop to iterate through the array and calculate the average number of letters per name.

35 //Print the result to the console.

36 let count2 = 0 ;

37 for (const element of names){

38 if (element.length != 0) {

39 count2 += element.length;

40 }

41 }

42 let avg2 = count2 / names.length;

43 console.log('The average is ' + avg2);

44 console.log(count2);

45 //concatenate all the names together, separated by spaces,

46 //and print the result to the console

47 let allNames=" ";

48 for (const element of names) {

49 allNames += element + " ";

50 }

51 console.log('All names together with space ' + allNames);

PROBLEMS 3

OUTPUT

DEBUG CONSOLE

TERMINAL

Filter (e.g. text, **/*.ts, !**/node_modules/**)

index.html 3

Add "lang" and/or "xml:lang" attributes to this "<html>" element sonarlint(Web:S5254) [Ln 1, Col 1]

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OUTLINE

TIMELINE

SONARLINT RULES

SONARLINT ISSUE LOCATIONS

SONARLINT CONNECTED MODE

master* 0 3

Ln 161, Col 72 Tab Size: 4 UTF-8 LF () JavaScript

EXPLORER

PROJECT2

index.html

index.js

3, U

U

JS index.js > ...

51 console.log('All names together with space ' + allNames);

52 //How do you access the last element of any array?

53 console.log('To access the last element in the array we use ' + names[names.length - 1]);

54 //How do you access the first element of any array?

55 console.log('the zero index is always the first ' + names[0]);

56 //Create a new array called nameLengths. Write a loop to iterate over the

57 //previously created names array and add the length of each name to the nameLengths array

58 let nameLength = [names.length];

59 for (let i = 0; i < names.length; i++) {

60 nameLength[i] = names[i].length;

61 }

62 console.log(nameLength);

63 //Write a loop to iterate over the nameLengths array and calculate the sum

64 //of all the elements in the array. Print the result to the console.

65 let sum = 0;

66 for(const element of nameLength){

67 sum += element;

68 }

69 console.log(sum);

70 //Write a function that takes two parameters, word and n,

71 //as arguments and returns the word concatenated to itself n number of times.

72 //(i.e. if I pass in 'Hello' and 3, I would expect the function to return 'HelloHelloHello')

73 function repeatString(str, num) {

74 return str.repeat(num);

75 }

76 console.log(repeatString("hello", 3));

PROBLEMS 3

OUTPUT

DEBUG CONSOLE

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Filter (e.g. text, **/*.ts, !**/node_modules/**)

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EXPLORER

PROJECT2

- index.html
- index.js

3, U

U

JS index.js > ...

```
76 console.log(repeatString("hello", 3));
77 //Write a function that takes two parameters, firstName and lastName,
78 // and returns a full name (the full name should be the first and the last name separated by a space)
79 function fullName (firstName , lastName){
80     return firstName + " " + lastName;
81 }
82 console.log(fullName('Pablo', 'Cabrera'));
83 //Write a function that takes an array of numbers and
84 //returns true if the sum of all the numbers in the array is greater than 100.
85 function arrOfNum (array){
86     let sum2 = 0;
87     for (const element of array){
88         sum2 += element;
89         if(sum2 >= 100){
90             return 'True';
91         }else {
92             return 'False';
93         }
94     }
95 }
96
97 }
98 console.log(arrOfNum(numbers));
99 //Write a function that takes an array of numbers and returns
100 //the average of all the elements in the array.
101 function avoArrfarravlf
```

PROBLEMS 3 OUTPUT DEBUG CONSOLE TERMINAL

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EXPLORER

PROJECT2

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3, U

U

JS index.js > ...

```
101 function avgArr(array){
102     let count3 = 0;
103     let total3 = 0;
104     for (const element of array){
105         if (array != undefined){
106             count3++;
107             total3 += element;
108         }
109     }
110     return total3 / count3;
111 }
112 console.log(avgArr(numbers));
113
114 //Write a function that takes two arrays of numbers and
115 //returns true if the average of the elements in the first array
116 //is greater than the average of the elements in the second array.
117
118 function compareArrays (array1 , array2){
119     let count4 = 0;
120     let total4 = 0;
121     for (const element of array1){
122         if (array1 != undefined){
123             count4++;
124             total4 += element;
125         }
126     }
```

PROBLEMS 3 OUTPUT DEBUG CONSOLE TERMINAL

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OUTLINE

TIMELINE

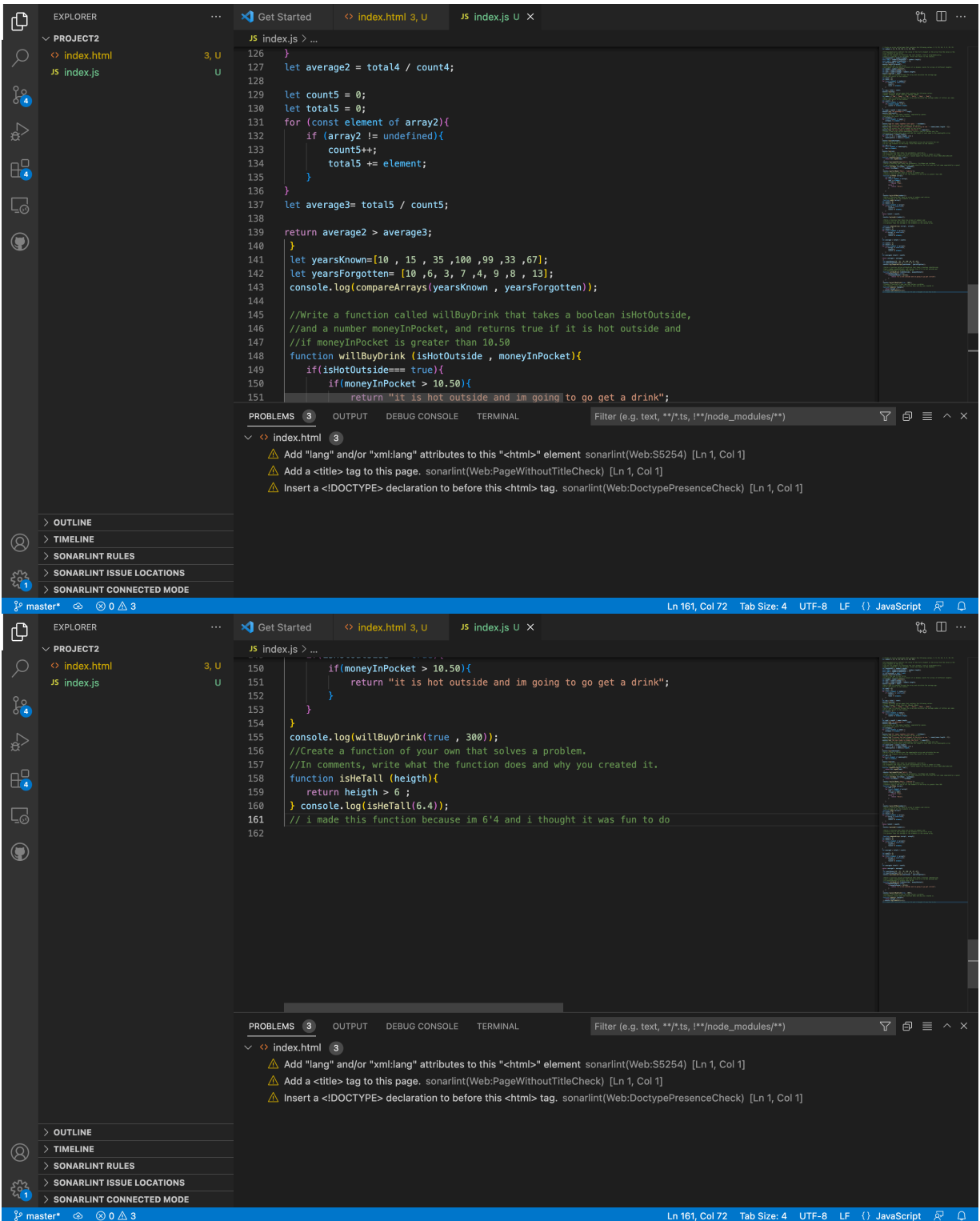
SONARLINT RULES

SONARLINT ISSUE LOCATIONS

SONARLINT CONNECTED MODE

master* 0 3

Ln 161, Col 72 Tab Size: 4 UTF-8 LF () JavaScript



Screenshots of Running Application:

