PROMINEO TECH

Intro to JavaScript Week 2 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. What do each of the following Boolean expressions evaluate to?

Boolean Expression	Answer
true && false	FALSE
true || false	TRUE
false && false	FALSE
true && (false || true)	TRUE
false || (true && false)	FALSE
false || 1 < 5	TRUE
5 >= 4 && 1 > 3	FALSE
10 < 4 || 1 > 4	FALSE
12 >= 2 && 1 < 24	TRUE
'Hello'.charAt(0) == 'h'	FALSE

2.

2. In your editor, create a new directory for this project. Create an index.html and index.js file. Link the JavaScript file to the HTML file. In the JavaScript file create the following Boolean variables and choose what values they hold:
   a. isHotOutside
   b. isWeekday
   c. hasMoneyInPocket
3. Create the following variables and assign them values (the assigned values should not be Boolean):
   a. costOfMilk
   b. moneyInWallet
   c. thirstLevel (how thirsty you are on a scale of 1-10)
4. Using the variables you created above and Boolean operators, create variables for the following scenarios:
   a. shouldByIcecream – this should be true if it is hot outside and there is money in your pocket
   b. willGoSwimming – this should be true if it is hot outside and it is not a weekday
   c. isAGoodDay – this should be true if it is hot outside, there is money in your pocket, and it is not a weekday

       d. willBuyMilk – this should be true if it is hot outside, and thirstLevel is greater than or equal to 3, and moneyInWallet is greater than or equal to 2 times the cost of milk.

Example: If I had the variables isWeekday and isSummer and I was going to create a variable isSchoolDay, I would do something like the following:

var isSchoolDay = isWeekday && !isSummer;

    5. Log the values to the console.
    6. Create a new file called loops.js and link it to your HTML file. Create the following loops with any variables you feel are needed:
       a. A while loop that prints all even numbers from 0 to 100
       b. A while loop that prints every 3rd number going backwards from 100 until we reach 0
       c. A for loop that prints every other number from 1 to 100
       d. A for loop that prints every number from 0 to 100, but if the number is divisible by 3, it prints "Hello" instead of the number, and if the number is divisible by 5, it prints "World" instead of the number, and if it is divisible by both 3 and 5, it prints "HelloWorld" instead of the number.

Screenshots of Code:

```javascript
1    let isHotOutside = true;
2    let isWeekday = true;
3    let hasMoneyInPocket = true;
4
5    let costOfMilk = 1.99;
6    let moneyInWallet = 5;
7    let thristLevel = 5;
8
9    let shouldBuyIceCream = isHotOutside && hasMoneyInPocket;
10   console.log("Should I buy ice cream? " + shouldBuyIceCream);
11
12   let willGoSwimming = isHotOutside && !isWeekday;
13   console.log("Should I go swimming? " + willGoSwimming);
14
15   let isAGoodDay = isHotOutside && moneyInWallet && !isWeekday;
16   console.log("Is it a good day? " +isAGoodDay)
17
18   let willBuyMilk = (isHotOutside && thristLevel >= 3) &&
19       (moneyInWallet >= costOfMilk*2);
20   console.log("Can I buy milk? "+ willBuyMilk);
21
```

```javascript
//LOOPS
console.log("LOOPS");

console.log("6A");
let i = 0;
while (i < 101 ) {
    console.log(i);
    i+=2;
}

console.log("6B");
let a = 100;
while (a >= 0) {
    console.log(a);
    a-=3;
}

console.log("6C");
for (let i = 1; i <= 100; i+=2) {
    console.log(i);
}

console.log("6D");
for (let i = 0; i<=100; i++) {
    if (i % 3 == 0 && i % 5 == 0) {
        console.log("HelloWorld");
    } else if (i % 5 == 0) {
        console.log("World");
    } else if (i % 3 == 0) {
        console.log("Hello");
    } else {
        console.log(i);
    }
}
```

Screenshots of Running Application:

```
6A                6B        6C    6D
0      64         100       1     HelloWorld    32    World
2      66         97        3     1             Hello Hello
4      68         94        5     2             34    67
6      70         91        7     Hello         World 68
8      72         88        9     4             Hello Hello
10     74         85        11    World         37    World
12     76         82        13    Hello         38    71
14     78         79        15    7             Hello Hello
16     80         76        17    8             World 73
18     82         73        19    Hello         41    74
20     84         70        21    World         Hello HelloWorld
22     86         67        23    11            43    76
24     88         64        25    Hello         44    77
26     90         61        27    13            HelloWorld Hello
28     92         58        29    14            46    79
30     94         55        31    HelloWorld    47    World
32     96         52        33    16            Hello Hello
34     98         49        35    17            49    82
36     100        46        37    Hello         World 83
38                43        39    19            Hello Hello
40                40        41    World         52    World
42                37        43    Hello         53    86
44                34        45    22            Hello Hello
46                31        47    23            World 88
48                28        49    Hello         56    89
50                25        51    World         Hello HelloWorld
52                22        53    26            58    91
54                19        55    Hello         59    92
56                16        57    28            HelloWorld Hello
58                13        59    29            61    94
60                10        61    HelloWorld    62    World
62                7         63    31            Hello Hello
                  4         65                  64    97
                  1         67                        98
                            69                        Hello
                            71                        World
                            73
                            75
                            77
                            79
                            81
                            83
                            85
                            87
                            89
                            91
                            93
                            95
                            97
                            99
```

URL to GitHub Repository:

https://github.com/Christinalytle/JavaScriptWeek2Homework.git