**CIS196-** Internet Programming II- **Test 1**

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**Date: \_\_\_\_\_2-18-22\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

For this exam, you need to code two JavaScript applications.

You need to submit a word or pdf document that includes:

1. Copy and paste the solution code from your VS Code for both applications
2. <!DOCTYPE html>
3. <html>
4. <head>
5. <meta charset="UTF-8">
6. <meta name="viewport" content="width-device-width, intitial-scale-1">
7. <title>Sum of Numers</title>
8. </head>
9. <body>
10. <main>
11. <h1>Grade Converter</h1>
12. <script>
13. const grades= [];
14. do {
15. let grade= o;
16. grade = parseInt(prompt("Enter a number grade from 0 through 100\n" +
17. "Or enter 999 to end entries"));
18. if (grade > 0 && grade >= 100 ) {
19. grades[grade.length] = grade;
20. }
21. else if (grade <= 0 && grade < 100) {
22. alert("Grade must be a valid number 0 through 100");
23. }
24. } while(grades != 999)
26. for(grades[i] in grades){
28. }
29. </script>
30. </main>
31. </body>
32. </html>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width-device-width, intitial-scale-1">

<title>Sum of Numers</title>

</head>

<body>

<main>

<h1>Sum of Numbers</h1>

<script>

const numbers = [];

do {

number = parseInt(prompt("Enter any top number to sum"));

} while(isNan(number) || number < 0 || number >= 100);

numbers[number.length] = number;

let sum = 0;

for( let i in numbers) {

sum = sum + numbers.length[i];

}

</script>

</main>

</body>

</html>

1. Captures for the solution codes, for the two applications.
2. Text

   Description automatically generated with low confidence
3. Timeline

   Description automatically generated with low confidence
4. Captures for the outputs of the two applications.
5. Graphical user interface, text, application

   Description automatically generated
6. Graphical user interface, text, application

   Description automatically generated
7. Remember to label the captures as well as the codes (copied and pasted) with the title of the application. I will deduct points for not labeling the captures.

***You also need to submit the exam document with your name and the date under the coursework.***

***Note: the applications’ specifications are on the next page.***

# First application: Convert number grades to letter grades

To start, this application should display a prompt dialog box like the one below that gets a number grade from 0 through 100:

Graphical user interface, application

Description automatically generated

Then, it should display in the page letter grades for the numbers the user entered:

Text

Description automatically generated

To derive the letter grade, you should use this table:

A 88-100  
B 80-87  
C 68-79  
D 60-67  
F < 60

1. Use this HTML code as the starting point

Graphical user interface, text, application, email

Description automatically generated

1. In the script element, add the JavaScript code for getting the user’s entry while the entry amount isn’t 999. This should provide for multiple entries and conversions.
2. Add the JavaScript code for deriving the letter grade from the table above and displaying it on the page.
3. If you haven’t already done so, add data validation to make sure the entry is a valid number from 0 through 100. If the entry is invalid, the application should just display the starting prompt dialog box. It doesn’t need to display a special error message.

# Question Two: Create a Sum of Numbers application

This application asks the user to enter a number from 1 through 100 with this prompt dialog box:

Graphical user interface, application

Description automatically generated

Then, to give the user a chance to do multiple entries, this dialog box is displayed:

Graphical user interface, application

Description automatically generated

Finally, it adds all the numbers from each of the user’s entries and displays the sum of the numbers in the page like this:

Text

Description automatically generated

1. Use this HTML code as the starting point

Graphical user interface, text, application, email

Description automatically generated

1. In the script element, add a do-while loop that prompts the user for an entry from 1 through 100. If the entry is invalid, display an alert box with this message: “Please enter a number between 1 and 100”. Then, continue the loop until the entry is valid.
2. After the do-while loop, code a for loop that sums the numbers, and then display the second dialog box above. For instance, the sum for an entry of 4 is 1 + 2 + 3 + 4.
3. Add a do-while loop around all of the code that uses the second dialog box above to determine whether the first dialog box should be displayed again so the user can enter another number. The application should end for any entry other than “y”.