IT614

Lab Assignment 5

This assignment has two problems: Lab Assignment 5A and Lab Assignment 5B.
Grading policy: The Lab Assignment 5 is worth 15 points. You will receive 10 if you do only one (either one). The second one is 5 points.

Lab Assignment 5A

This was last week's 4B assignment: "Write a program to input a four digit integer from prompt dialog box, and display the sum of the digits of the integer number."

This week's 5A assignment is to make the input more general. The 5A assignment is to make the input "any number of digits" instead of "a four digit integer." Here is the problem:

Write a program to input an integer from prompt dialog box, and display the sum of the digits of the integer number. You don't know how many digits are in the input. When I test your program, as an example, I may input a 2-digit number or a 10-digit number. Any number of digits are possible in the input.

Details:
Don't input one digit at a time.
You will be using only one prompt dialog box.
When I test your program, I will type an integer (any number of digits)

Hint:
The basic idea is as before: "extracting each digit and adding it." Because you don't know how many digits are in the input, you should use a loop. You do this "extracting each digit and adding" within the loop. The loop terminates when the "remaining value" is zero.

Name this file **Lab5A***YourLastName*.html. Example: Lab5ASmith.html.

Lab Assignment 5B

Write a JavaScript program to randomly generate a single digit number (0,1,2,…9) one thousand times and output how many 0s,1s, 2s, 3s,….9s were generated.

Hint:
A code to randomly generate a single digit number is **Math.floor((Math.random()*10));**
Once you generate a digit, in the program check its value (0,1,2,…9) and increment the appropriate counter. One way of doing this is to have ten variables and using 10 if statements. But, there is a better way of accomplishing this. Let me give you more hint (study this well): You should think beyond the obvious. Create an array of size 10. Let us call the array digits[]. Let us use the variable num for the randomly generated digit. Without ten **if** statements, you can keep track of the 10 digits by doing this: ++digits[num].

You may want to read the hint again to appreciate the logic.

Expected output is similar to the following:

0	1	2	3	4	5	6	7	8	9
94	97	83	111	103	104	110	88	101	109

Obviously the numbers on the second row will be different (because of randomness).

What to submit:

1. Upload both HTML files on to Vulcan under your public_html. Test if the link works from your browser.
2. Send me an email to IT614Assignment@gmail.com. Include in the same email the two links to your HTML files on Vulcan.
3. I will open each of the HTML files in Chrome browser. If the links don't work, you will automatically receive 0 for the assignment(s).
4. Both pages must display (in the browser) the following information: (i) Your full name (ii) Course number and (iii) Assignment number.
5. Include your name and assignment # in the email subject area.

If any of the above items are missing, you will not receive full credit.

REQUIRED: After you submit your assignment this week post some comments on the Discussion Board about this week's work. Also include any interesting Web site you found on this week's material.

If you don't post your comments on the Discussion Board before the Lab due date/time, you will lose two points from your lab score.
