COP4813/5819 Internet Programming
Spring 2017
Assignment 2
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Due: February 6 (Monday)
Total points: 30

Question 1. Write a script that calculates the squares and cubes of the numbers from 0 to 5 and outputs HTML5 text that displays the resulting values in an HTML5 table format (including styles), as shown below (ex. different colors for odd/even rows). No points will be given if the table is built in html, not java script.

number	square	cube
0	0	0
1	1	1
2	4	8
3	9	27
4	16	64
5	25	125

Question 2. A company wants to transmit data over the telephone, but it's concerned that its phones may be tapped. All of its data is transmitted as four-digit integers. It has asked you to write a script that will encrypt its data so that the data may be transmitted more securely. Your script should read a four-digit integer entered by the user in a prompt dialog and encrypt it as follows: Replace each digit by (the sum of that digit plus 7) modulus 10. Then swap the first digit with the third, and swap the second digit with the fourth. Then output HTML5 text that displays the encrypted integer.

You can use this example to test your program: input = 1 2 3 4 and output = 0 1 8 9. It is possible that the input starts with zeros.

[**Graduate students only**] If the input consists of non-numeric digits, the program should pop up an alert window. If the input consists of more than four digits, the program should also pop up an alert window showing appropriate instruction or warnings.

Question 3. Write a script that simulates coin tossing. Let the program toss the coin each time the user clicks the **Toss** button. Count the number of times each side of the coin appears. Display the results in a table. The program should call a separate function **flip** that takes no arguments and returns **false** for tails and **true** for heads. [*Note*: If the program realistically simulates the coin tossing, each side of the coin should appear approximately half the time.]

Submission

Upload the files to your personal web space on osprey.unf.edu. Create an index page at the following url:

http://www.unf.edu/~your_n_number/ip/xxx_hw2.html

On the index page, display links pointing to your solution to each question.

Create a zip file consisting of all files related to your submission.

Submit the link and the zip file via Blackboard.