

**CS 8 – Introduction to Computer Science**  
**HOMEWORK 4**  
**Print this form and write your answers on it.**

**SCORE: (out of 40)**

**Submit this homework (hardcopy) to class. DUE DATE is 02/21/18.**

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**Perm ID Number:** \_\_\_\_\_

**Lab Time** Circle one: 1 PM 2 PM 3 PM 4 PM

Based on Ch. 3 material. If you need more space to write your answers, feel free to use an extra blank page and attach it to this homework.

To answer some of the questions on this homework, it will be very helpful to have a computer system running Python version 3.x (e.g., 3.4.3) available to you. To find such a system, you can either:

- Log on to one of the computers in the CSIL computer lab, and access Python 3 there - see posted Lab00 for instructions.
- Download Python 3 to your PC or Mac, and access Python 3 there.

1. (15 pts) Write a Python function, called `NoSpaces ( )`, that takes in a string as a parameter and returns the string re-written without any space characters. For example:

`NoSpaces("I still haven't found what I'm looking for")`

returns the string:

`"Istillhaven'tfoundwhatI'mlookingfor"`

Hint: use a **for** loop to go through each character in the sentence, like in the example of Listing 3.2 in the book (p. 95)

2. (15 pts) Write a generalizable Python function based on `NoSpaces( )` from the previous question, called `NoChar( )`, that takes in 2 parameters: a string and a character. It returns the string without any of the character in it. For example:  
`NoChar("I'd rather be a hammer than a nail", "a")`  
returns the string:  
`"I'd rther be hmmaer thn nil"`

3. (10 pts) The following question refers to the `scramble2Encrypt( )` function that's described in Listing 3.2 (p. 95) in the textbook. Consider a string `s = "hello"` and the statement `s = scramble2Encrypt(s)`.
- What is the value of `s` after you run that statement?
  - If you repeat the statement `s = scramble2Encrypt(s)` multiple times, does `s` ever become `"hello"` again? If yes, how many times? The best way to answer this question is to actually try it out in Python.