

CS-UY 1114 Lab 7, Spring 2018

In this lab, you will learn string manipulation, specifically:

- Looping over string with for-each loop
- Indexing string
- Slicing
- String methods

1. Ask user to input a string *s*. Create a string *s2* by converting all uppercase letters in *s* to lowercase, and lowercase letters to uppercase.

Example Output:

```
Please enter a string: Winter is Coming
New string is: wINTER IS cOMING
```

2. Given 2 strings, *a* and *b*, return a string of the form short + long + short, with the shorter string on the outside and the longer string on the inside. The strings will not be the same length, but they may be empty, meaning length of 0.

Example Output:

```
Please enter string a: hello
Please enter string b: hi
The output is: hihellohi
```

3. Ask the user for a string *s* and an integer *k*. Then, reverse the every other substring of length *k*.

Example Output:

```
Please enter string s: abcdefg
Please enter a number k: 2
The output is: bacdfeg
```

In the above example, 'ab' is reversed to be 'ba'. 'cd' is kept the same. 'ef' is flipped to be 'fe', and 'g' stayed the same.

4. Ask the user for a sentence. Then, reverse every word of the sentence.

Example Output:

```
Please enter string s: Let's do our best in CS1114!
Result: s'teL od ruo tseb ni !4111SC
```

5. Write a program that asks the user for a string s . Then, check to see if the entered string is made up of a repeating substring.

Example Output 1:

```
Please enter a string s: ababab  
The substring ab repeated 3 times in ababab
```

Example Output 2:

```
Please enter a string s: aba  
There are no repeating substrings in aba
```