CSCI 220L

Lab 6

Learning Objectives

- Practice using string operations and methods.

Activities

Create a Python file `lab6.py` containing the following functions. Make sure to use meaningful variable names, input prompts, and output messages.

1. String processing warmup

   Write a function `warmup()` that asks the user to enter a string of text, and then displays each of the following:

   (a) The first and last characters of the string
   (b) The characters in positions 3–6 of the string (inclusive)
   (c) The number of characters in the string
   (d) The first three characters repeated 10 times
   (e) The string with a comma between each character (Hint: use a loop)

2. Writing your own `len()`

   Write a function `my_len()` to replace the built-in `len()`. It should ask the user to enter a string and then output its length. Your solution shouldn't use the built-in `len()`. Hint: Use an accumulator.

3. Removing a character from a string

   Write a function `remove()` that asks the user to enter a string and an index, and displays the string with the character at that index removed. You may assume the given index is within the string. For example, removing the character at index 2 in `"hello"` should produce `"helo"`. Hint: Use slicing.

4. Adding up a number's digits

   Write a function `add()` that asks the user to enter a number and displays the sum of its digits. For example, the sum of the digits in 123450 is 15. Hint: Convert the number to a string.

5. Reversing a name

   Write a function `reverse()` that asks the user to enter a full name (first and last) and displays it in last-comma-first order. For example, `"Ben Kenobi"` should be changed to `"Kenobi, Ben"`.

6. Capitalizing a string

   Write a function `caps()` that asks the user to enter some text and displays it in all uppercase. For example, `"Hello there!"` should be changed to `"HELLO THERE!"`.

7. Evens and odds

   Write a function `evens()` that asks the user to enter a word and displays it with only the characters at even indices. For example, `"ABCDEF"` should change to `"ACE"`.

Upload `lab6.py` to the OAKS dropbox before the deadline. Make sure you have most of the exercises completed before your lab meeting.