

Strings

Summary:

- Strings in python are surrounded by single or double quotation marks.
- A string is assigned to a variable using the variable name followed by an equal sign and the string: a = "Name"
- You can assign a multiline string to a variable by using three quotes:

```
var = """a  
c  
b"""
```
- A string is an array, with each character, simply another string of length 1. Square brackets can be used to access elements of the string.
- We can loop through the characters in a string, using a **for** loop.
- For the length of a string, use the **len()** function.
- For checking if a certain character is present in a string, use the keyword **in**.
- For checking if a certain character is not present in a string, use the keyword **not in**.
- You can return a range of characters by using the slice syntax: Specify the start index, end index, and steps, separated by colons. Default step is 1.
- Python has a set of built-in methods that you can use on strings: upper(), lower(), format(), capitalize(), split(), strip(), replace(), etc.
- Two strings can be concatenated, or combined, using the + operator.
- An escape character is a backslash \ followed by the character you want to insert: used to insert illegal characters. (eg: \n : New line)

Exercises

Exercise 1:

a = "This is the first strings exercise!"

Print the following:

- First character
- Third character
- Every alternate character
- The last character

Exercise 2:

Swap the commas and the dots in the following string:

b = "14, 625, 498.002"

Exercise 3:

Print even length words (words with even number of letters) in the string:

c = "The name of the dogs are Myloe and Ruby."

Exercise 4:

Capitalize the first and last letter of every word in the string:

d = "this is exercise number four."

Exercise 5:

Count the number of vowels in a string.

Exercise 6:

Get a string made of the first 2 and the last 2 chars from a string. If the string length is less than 2, return the empty string.

(example: string = "My name is xyz". Output = "Myyz")

(Hint: Use string concatenation)

Exercise 7:

Input a word from the user and check if it is a palindrome- after checking that it does not contain spaces.

Exercise 8:

Write a paragraph, with each sentence starting on a new line:

- Using an escape character
- By assigning the multiline string to a variable
