String Formatting

Exercises

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Level - Easy

Exercise 1-1

1. Create a string with the value "Hello, World!" and assign it to a variable. Print the string.
2. Convert the entire string to uppercase and print the result.
3. Convert the entire string to lowercase and print the result.
4. Print the first character of the string.
5. Print the last character of the string.

Exercise 1-2

1. Create a string named sentence with the value "Learning Python is exciting."
2. Extract the word "Python" from the string using slicing and print it.
3. Extract the last word of the sentence using slicing and print it.

Exercise 1-3

1. Create two variables, name with the value "John" and age with the value 25.
2. Use string formatting to construct and print the sentence: "My name is John and I am 25 years old."

Exercise 1-4

1. Ask the user for their first name and assign it to a variable first_name.
2. Ask the user for their last name and assign it to a variable last_name.
3. Print a message that says "Hello [first_name] [last_name]! Welcome aboard!" using string formatting.

Exercise 1-5

1. Create a string "Apples,Bananas,Cherries,Dates".
2. Split the string into a list of fruits using the comma as a delimiter.
3. Join the list of fruits back into a string, but this time separate them with a hyphen (-) and print the result.

Level - Moderate

Exercise 2-1

1. Create a string named var_string with the value "gibberishabc".
2. Truncate the string to remove the last three letters using a string format method.

Exercise 2-2

1. Create a string with the value "UnIvErSiTy".
2. Convert the string such that only the first letter is uppercase and the rest are lowercase. Print the result.
3. Check if the string ends with "ity". If yes, print "The string ends with 'ity'." Otherwise, print a different appropriate message.

Exercise 2-3

1. Take the string "I like cats. Cats are cute."
2. Replace the word "cats" with "dogs" and "Cats" with "Dogs" so that the capitalization remains consistent.
3. Print the result.

Exercise 2-4

1. Prompt the user to enter an email address.
2. Check if the entered email contains the "@" symbol and ends with ".com".
   a. If both conditions are met, print "Valid email."
   b. Otherwise, print an appropriate error message.

Exercise 2-5

1. Create a multi-line string with the value:

   Roses are red,
   Violets are blue,
   Sugar is sweet,
   And so are you.

2. Count and print the number of words in the poem.
3. Replace the word "blue" with "green" and "you" with "me" in the poem.
4. Print the modified poem.

Exercise 2-6

1. Given the string "interior", extract and print the word "terror" using slicing.
2. Using slicing, reverse the string "abcdef" to "fedcba".

Exercise 2-7

1. Create three float numbers: 12.34567, 89.12345, and 67.89123.
2. Format and print each number to retain only two decimal places.
3. Print these numbers in a column, right-aligned, with a width of 10 characters.

Exercise 2-8

Given a string "Title Of The Book", convert it into a format suitable for a URL slug, resulting in "title-of-the-book".

Level - Hard

Exercise 3-1

1. Print the number 1, 10, 100, 1000 and 10000 using a format method.
   The result should look like :

   ```
   +       1
   +      10
   +     100
   +    1000
   + 10000
   ```

2. Modify your code to get:

   ```
   + 00001
   + 00010
   + 00100
   + 01000
   + 10000
   ```

Exercise 3-2

1. Given the string:

   "I am studying at the University in the year 2023".

2. Without using the replace() method, transform the string to:

   "You were studying at a College in 1999".

3. Try to use the least amount of operations possible.
4. Print the modified string.

Exercise 3-3

Given a string like "A:B:C:D:E:F", swap the first three items with the last three items. The result for this example would be "D:E:F:A:B:C".

Exercise 3-4

Take the sentence "The quick brown fox". Reverse the order of words but not the characters in the words. The resulting sentence should be: "fox brown quick The".

Exercise 3-5

Determine if the string "racecar" can be constructed using only characters from the string "cartracerace", without reusing characters.

Exercise 3-6

1. Ask the user for a word.
2. Checks if the string contains digits.
3. If so, print "Your string is not a correct word."
4. If not:
   a. if the string starts with a vowel, then add "way" to the end of the string .
      ex : "air" becomes "airway" and "eat" becomes "eatway."
   b. if the string starts with any other letter, then take the first letter, put it on the end of the string, and then add "ay" at the end.
      ex : "python" becomes "ythonpay" and "computer" becomes "omputercay"
   c. Print the modified string.