Practice Problem Set 1

Exercise on Strings - Level 1

Problem Statement 1

Description:

Write a Python program that prints the length of a string `s`.

Expected Output:

Input	Output
""	0
"H"	1
"hello"	5
"Amazing"	7

Problem Statement 2

Description:

- Write a Python program that prints the character at index `i` in the string `s`.
- If the index is out of range, the program should print `"i is out of range"`
- If the string is empty, the program should print `"Empty String"`

Expected Output:

String	i	Output
"Hello"	2	"l"
"Pizza"	4	"a"
""	3	"Empty String"
"World"	15	"i is out of range"

Problem Statement 3

Description:

- Write a Python Program that prints the reversed version of a string.
- The program must preserve uppercase and lowercase letters.
- If the string is empty, print it intact.

Expected Output:

Input	Output
"Hello"	"olleH"
"Wo"	"oW"
""	""

Problem Statement 4

Description:

- Write a Python program that prints the first and last three characters of the string `s` as a single string.
- If the string has less than six characters, print an empty string (blank output).

Expected Output:

Input	Output
"Blue"	""
"Wonderful"	"Wonful"
"Amazing"	"Amaing"

Problem Statement 5

Description:

- Write a Python program that prints the string `s` without the characters located at even indices.
- If the string is empty or only has one character, print it intact.

Expected Output:

Input	Output
"Coding"	"oig"
"Pizza"	"iz"
"Python"	"yhn"
"A"	"A"
""	""

Problem Statement 6

Description:

- Write a Python program that check if a string only contains numbers.
- If it does, print `True`. Else, print `False`.

Expected Output:

String	Output
"Hello"	False
"4567"	True
"Hello59"	False
""	False

Hints:

- The `.isdigit()` method returns True if all the characters in the string are digits.

Problem Statement 7

Description:

- Write a Python program that prints the string s without the character at index n.
- If the index n is out of range, print the string s intact.
- If the string s is empty, print the string s intact.

Expected Output:

String	n	Output
"Hello"	1	"Hllo"
"World"	3	"Word"
"Dog"	15	"Dog"
""	2	""

Problem Statement 8

Description:

- Write a Python program that prints the string s with the character `curr_char` replaced by the character `new_char`.
- `curr_char` and `new_char` are variables that contain strings with a single character.
- You may assume that `new_char` will not be an empty string.
- The match must be case-sensitive (do not replace lowercase letters if `curr_char` is uppercase).
- If no match is found, print the initial string.

Expected Output:

String	`curr_char`	`new_char`	Output
"Hello"	"l"	"s"	"Hesso"
"World"	"W"	"A"	"Aorld"
"Pyhton"	"P"	"x"	"xython"
"Pyhton"	"p"	"a"	"Python"