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Chapter 3
Strings

String is a data type in Python. String is a sequence of characters enclosed in quotes.

We can primarily, write a string in these three ways:

1. Single quoted strings → a = 'Manisha'
2. Double quoted Strings → b = "Madhuri"
3. Triple quoted Strings → c = """Amitesh"""

String Slicing

A string in python can be sliced for getting a part of the String.
Consider the following String:

name = "Abhi" ⇒ length = 4

	A	b	h	i
	0	1	2	3
	(-4)	(-3)	(-2)	(-1)

The index in a string start from 0 to (length-1) in Python. In order to slice a string, we use the following syntax:

sl = name [ind_start : ind_end]

first index included

last index is not included

sl [0:3] returns "Abh" → characters from 0 to 3.

sl [1:3] return "bh" → characters from 1 to 3

Negative Indices:

Negative Indices can also be used as shown in the figure above. -1 corresponds to the (length-1) index, -2 to (length-2).

Slicing with skip value

We can provide a skip value as a part of our slice like this:

```
tilak = "suman"
tilak[
```

```
word = "amazing"
word [1:6:2]  → 'mzn'
```

Other advanced slicing techniques

```
word = "amazing"
word[ :7]  → word [0:7] → 'amazing'
word[0:]  → word [0:7] → 'amazing'
```

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String functions

Some of mostly used functions to perform operations on or manipulate strings are:

1. len() function → This function returns the length of the strings.

   len("Chary") → return 5
   len("Miri") → return 4

2. String.endswith("rry") → This function tells whether the variable string ends with the string "ary" or not. if string is "Chary", it returns true for "are" since Chary ends with ary.

3. String.count("c") → Counts the total number of occurence of any character.

4. String.capitalize() → This function capitalizes the first character of a given string.

5. String.find(word) → This function find a word and returns the index of first occurence of that word in the string.

6. String.replace(old word, new word) → This function replace the oldword with newword in the entire string.

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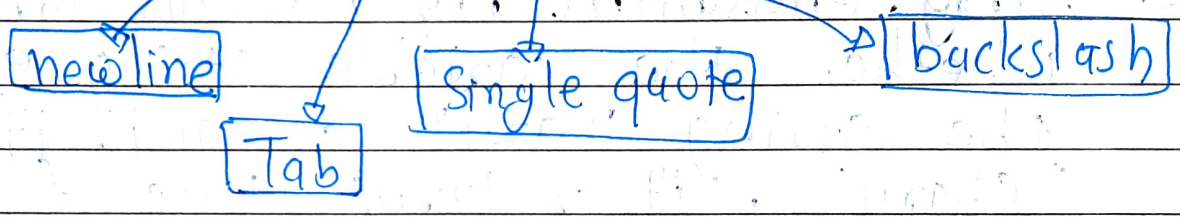
Escape Sequence Characters

Sequence of characters after backslash '\'

Escape Sequence character

Escape sequence character comprises of more than one characters but represents one characters when used within the strings.

Examples : \n , \t , \' , \\ etc.



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Chapter 3
Practice Set

Q.1 Write a Python program to display a user entered name followed by Good Afternoon using input() function.

Q.2 Write a program to fill in a letter template given below with name and date.

Q.3 Write a program to detect double spaces in a string.

Q.4 Replace the double spaces from problem 3 with single spaces.

Q.5 Write a program to format the following letter using escape sequence characters.

letter = "Dear Abhinay, This Python course is nice. Thanks!"