

Chapter 3 - Strings.

DATE / /

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 $\rightarrow a = \text{"Kaif"}$

2) Double quoted strings $\rightarrow b = \text{"Kaif"}$

3) Triple quoted strings $\rightarrow c = \text{"Kaif"}$

String Slicing

A string in Python can be sliced for getting a part of the string.

Consider the following string.

name =

K	a	i	F
---	---	---	---

 \Rightarrow Length = 4

0 1 2 3

↓ ↓ ↓ ↓

(-4) (-3) (-2) (-1)

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

`SL = name[ind-start: int-end]`

First index \swarrow include \searrow Last index is not include.

`SL[0:3]` returns "Hax" \rightarrow characters from 0 to 3
`SL[1:3]` returns "ax" \rightarrow 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)

String with skip value.

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

`word = "amazing!"`
`word = [1:6:2]` \rightarrow 'mzn'

other advanced slicing techniques.

word = "amazing"

word = [:7] → word[0:7] → 'amaz²¹⁴ing'

word = [0:] → word[0:7] → 'amazing'

String Function

Some of the mostly used function to perform operations on or manipulate string are:

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

len("Kaif") → ~~returns 4~~ returns 4

2) string.endswith("qif") → This function tells whether the variable string ends with the string "qif" or if string is "Kaif", it returns true for "qif" since Kaif ends with qif.

- 3) `String.Count("c")` → Counts the total numbers of occurrence of any character.
- 4) `String.Capitalize(C)` → This function capitalizes the first character of a given string.
- 5) `String.Find(word)` - This function finds a word and returns the index of first occurrence of that word in the string.
- 6) `String.Replace(Oldword, newword)` - This function replaces the oldword with newword in the entire string.

Escape sequence characters.

Sequence of characters of tex backslash '\'. → Escape seq. characters.

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

Examples $\backslash n$, $\backslash t$, $\backslash ' , \backslash \backslash$ etc.
newline \nwarrow Tab \swarrow Single quote \downarrow backspace \searrow

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