Ch 3: Strings

String is a datatype in Python which is enclosed within double quotes.

Some methods to create string:

p = 'string' ⇒ allows double quotes q = "string" (allows single quotes)
r = '''string''' s = """string
string2"""

print("Python" * 10) → python will get printed 10 times

P	r	o	g	r	a	m
0	1	2	3	4	5	6
-7	-6	-5	-4	-3	-2	-1

⇒ length = 7
print(len("Program"))
↳ returns the length of string

* Indexing starts from 0.

var = "Program"
print(var[0]) → 'P'
print(var[7]) → error (index out of range)

String slicing

This is used to get some part of a string

Syntax: str[first index : last index]

first index → included last index → unincluded

print("Program"[0:6]) → Progra

var = "Program"
print(var[0:99]) →[no error]

print(var[1:7]) → rogram

Negative slicing can also be done according to index in the figure.

- Slicing with skip values:
We use this to skip few characters while slicing.

word = "Programming"
print(word[0 : len(word) : 2]) → Pormng

skip value

The set of words will be skipped at an interval of (skip value - 1).

For example, skip value = 2 → jumps every (2-1) = 1st character

(P) r (o) g (r) a (m) m (i) n (g)

Some slicing tips :-

word = "Aluminium"
print(word[0:]) → "Aluminium"
↳ second parameter is by defaut length of string.

print(word[:9]) → "Aluminium"
↳ First parameter is by default = 0.

print(word[::]) → "Aluminium"
↳ Third parameter is by default = 1.

print(word[::-1]) → muinimulA
↳ string gets reversed.

□ String functions:

i. len() → returns the length of string
ii. string.isalnum() → Returns True if string doesn't have spaces.
iii. string.endswith("some Text") → True if few last characters are "some Text"
iv. string.count('p') → Counts the number of times 'c' occurs.
v. string.capitalize() → Capitalize first letter
vi. string.find("lost") → Returns the index where "lost" is present.
vii. string.lower() → Convert string to lowercase completely.
viii. string.upper() → Convert entire string to uppercase.
ix. string.replace("old", "new") → This function changes a word to another.