Operators on Strings

- The operators that work on strings are

Concatenation
repetition
Indexing
Slicing
In
Not in

- Concatenation :

- In python we can join / concatenate 2 strings using **+**

- **Ex :**

  s1 =‘hello’ **s2** = ‘world’

  s3 = s1 + s2 = ‘helloworld’

- Because string is immutable it will not modify it . It will create a new string

- When concatenation the 2 strings must be of string datatype only, if one is string and the other is integer this will not work

- **Ex :**

  s1 =‘hello’ **s2** = 15 // error

To add a string and a number we must type case the integer value then add it

- **Ex :**

  s1 =‘hello’ **s2** = str(15) // (o/p)

- Repetition :

- We can multiply a string with integer numbers

- **Ex :**

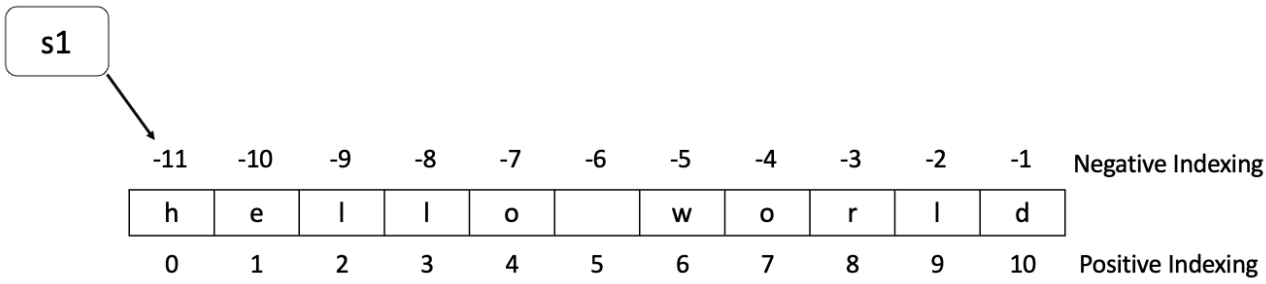
  s1 =‘hi’ * 3 // (o/p) hihihi

- Repetition only work with a string and integer value only
- Float numbers cannot be used here .
- **Ex :**

  ‘ hello ’ * 2.5 // error

- Indexing :

- Suppose we are having a string s1 =‘hello world ’, it looks like this with indexing



- It has both +ve and -ve indexing values
- You can access any character of the string using index values.

s1[o] —— h

s[-11] —— h

s1[4] —— o

s1[6] —— w

s1[—6] —— blank space

- Slicing :

- We can access values of strings using index
- Another way of accessing elements in a string is through slicing

- The syntax for slicing a string is

  s1[start : stop : step]

- Using slicing we can extract specific potion of a string

Ex :

```
>>> s1[0:len(s1):1]
'Hello World'
>>> s1[:len(s1):1]
'Hello World'
>>> s1[::1]
'Hello World'
>>> s1[3::]
'lo World'
>>> s1[6::]
'World'
>>> s1[6:8:]
'Wo'
>>> s1[::2]
'HloWrd'
>>> s1[::-1]
'dlroW olleH'
>>> s1[-1:-len(s1)-1:-1]
'dlroW olleH'
>>> s1[-1::-1]
'dlroW olleH'
>>> s1[-1::-2]
'drWolH'
```

- in :

- It will say if a character is present in the string or not .
- If it is present then it will return True or else False .

Ex :

s1 = ‘hello world ’

h in s1 —— True

world in s1 —— True

me in s1 —— False

- not in :

• It will say TRUE if the character is not present

Ex :

s1 = ‘hello world ’

me not in s1 —— True

world not in s1 —— False