Strings

String can be treated by typing words between single quotes or double quotes.

Python treats both single and double quotes as same.

Methods and built in functions

Indexing:

Indexing is nothing but getting the value of the particular position of the sequence (string or list or tuples)

For example assume a variable which is having string in it.

var = ‘Hello World’

0	1	2	3	4	5	6	7	8	9	10
H	**e**	**l**	**l**	**o**		**W**	**o**	**r**	**l**	**d**
-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

Indexing always starts with 0

Example:

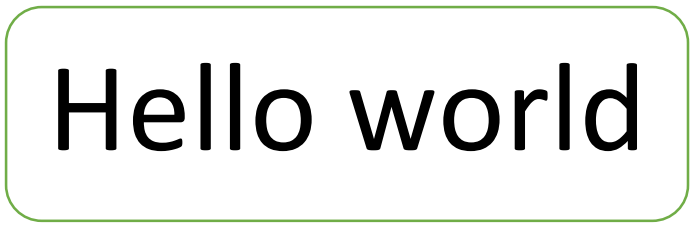
```
>>> var = 'Hello world'
>>> var[1]
'e'
```

```
>>> var[10]
'd'
>>> var[-2]
'l'
>>> var[-11]
'H'
```

Slicing:

Assume that string is like a bread. It can be cut like we want.

consider a variable var which has string ‘Hello world’



Now if I want to cut out only hello we can do it with respected to the positions of the string

Syntax : Variable_name[start_index: (end_index + 1)]

```
>>> var = 'Hello world'
>>> var[:]
'Hello world'
```

If you did not give start_index or end_index it will take the default values **i.e start_index = 0 and end_index = len(variable) - 1**

```
>>> var[:5]
'Hello'
>>> var[0:5]
'Hello'
>>> var[6:]
'world'
>>> var[6:11]
'world'
```

For all the following examples variable value will be same .

var = ‘Hello World’	
>>>len(var) 11	It will give the length of the string stored in the variable

>>> ord('w')
119
>>> ord('W')
87
>>> ord('r')
114
	Prints the ASCII value of the string

>>> max(var) 'r'	It will print the maximum value present in the string (you can wonder why it did not print W. It is because it gets the maximum considering the ASCII value of letters.

>>> min(var) ' '	It will print the minimum value present in the string
>>> var.capitalize() 'Hello world'	It will convert the first letter of the string to capital and remaining letters to small letters
>>> var.lower() 'hello world'	It will convert the string to lowercase.
>>> var.upper() 'HELLO WORLD'	It will convert the string to uppercase

You can also assign values to the variables by multiplying the string value

```
>>> var = 'hello'
>>> var = var * 3
>>> var
'hellohellohello'
```

The operation var = var * 3 can also be replaced like the following

```
>>> var = 'hello'
>>> var *= 3
>>> var
'hellohellohello'
```

>>> var = 'hello world'
>>> var.islower()
True
>>> var = 'Hello world'
>>> var.islower()
False
	It will return True if all the letters in the string are LOWERCASE else it will return False.

>>> var = 'Hello world'
>>> var.isupper()
False
>>> var = 'HELLO WORLD'
>>> var.isupper()
True
	It will return True if all the letters in the string are UPPERCASE else it will return False.

>>> var = 'five'
>>> var.isalpha()
True
>>> var = '5'
>>> var.isalpha()
False
	It will return True if the string contains only alphabets else it will return False

>>> var = '5'
>>> var.isdigit()
True
>>> var = 'five'
>>> var.isdigit()
False
	It will return True if the string contains only digits else it will return False