

Finding Substrings:

In PYTHON programming to find sub strings we can use the following 4 methods:

Forward direction:

1 `find()` 2 `index()`

Backward direction:

1 `rfind()` 2 `rindex()`

find():

Returns index of first occurrence of the given substring. If it is not available then we will get -1

Syntax:

`String.find(substring,begin,end)`

Example:

```
PyStr="Learning Python is Simpler"  
print(PyStr.find("Python"))  
print(PyStr.find("Data"))  
print(PyStr.find("e"))
```

Example:

```
PyStr="Python is"  
#String.find(substring,begin,end)  
print(PyStr.find('i'))  
print(PyStr.find('s'))  
PyStr="Python is good one"  
print(PyStr.find('o'))  
print(PyStr.find('o', 4))  
print(PyStr.find('o', 5))  
print(PyStr.find('o', 12, 16))  
print(PyStr.find('o', 13, 16))  
print(PyStr.find('O', 13, 16))
```

Example:

```
PyStr="hellopythonisgreat"  
print(PyStr.find('a'))  
print(PyStr.find('b', 7, 15))  
print(PyStr.find('t', 7, 15))  
print(PyStr.find('t', 8, 15))
```

index() method:

It returns the index of a substring inside the string (if found). If the substring is not found, it raises an exception.

Syntax:

`str.index(sub[, start[, end]])`

Example:

```
PyStr='Python programming is fun'  
print(PyStr.index('is fun'))  
print(PyStr.index('ing', 10))  
print(PyStr.index('g is', 10, -4))
```

Backward direction:

```
1 rfind()           2 rindex()

rfind()
It returns the highest index of the substring (if found). If not
found, it returns -1.

Syntax:
str.rfind(sub[, start[, end]]) )

Example:
PyStr="Learning Python is Simpler"
print(PyStr.rfind("S"))
print(PyStr.rfind("e"))
print(PyStr.rfind("o",10))
print(PyStr.rfind("e",15,25))

rindex()
It returns the highest index of the substring inside the string (if
found). If the substring is not found, it raises an exception.

Syntax:
str.rindex(sub[, start[, end]]) )

Example:
PyStr='Do small things with great love'
print(PyStr.rindex('u'))
print(PyStr.rindex('t', 2))
print(PyStr.rindex('h', 6, 20))

count()
It returns the number of occurrences of a substring in the given
string.

Syntax:
string.count(sub[, start[, end]]) )

Example
PyStr = "Python is Awesome, Yes or Not"
print(PyStr.count('i'))
print(PyStr.count('o',1))
print(PyStr.count('s',10,25))

startswith()
It returns True if a string starts with the specified prefix(string).
If not, it returns False.

Syntax:
str.startswith(prefix[, start[, end]]) )

Example:
PyTxt="Python programming is easy."
print(PyTxt.startswith('programming is', 7))
print(PyTxt.startswith('programming is', 7, 18))
print(PyTxt.startswith('programming is', 7, 21))

split():
It splits a string into a list.
```

Syntax:

```
string.split(separator, max)
```

Example:

```
PyStr="hello my name is Raju"
```

```
print(PyStr.split(" "))
```

O/P:

```
['hello', 'my', 'name', 'is', 'Raju']
```

Example:

```
PyStr="hello#my#name is Raju"
```

```
print(PyStr.split("#"))
```

O/P:

```
['hello', 'my', 'name is Raju']
```

Example:

```
PyStr="hello#my#name is Raju"
```

```
print(PyStr.split("#",1))
```

O/P:

```
['hello', 'my'#'name is Raju']
```

Example:

```
PyStr="Hello-Welcome-To-PYTHON"
```

```
Str=PyStr.split('-')
```

```
for x in Str:
```

```
    print(x)
```

Example:Reading Multiple Inputs:

```
>>> x=input().split()
```

```
10 20 30
```

```
>>> x
```

```
['10', '20', '30']
```