

```
In [1]: #What is a String?
#Any sequence of character either in single quotes or double quotes
#Are known as String

#Example:

x="Python"
x="python"
x='Python'
x="10"
x="10.5"
x="True"
x="10+2j"
x='Hello'
x='python'

In [2]: #How to Define multiline literals?
x="""Good
    Morning
    India
    Python"""

print(x)

Good
    Morning
    India
    Python

In [3]: x= "It's my own book"
x

Out[3]: "It's my own book"

In [4]: x= 'It"s my own book'
x

Out[4]: 'It"s my own book'

In [5]: x="On 18th of August 'India Will Going to Play Zimbabwe'"
x

Out[5]: "On 18th of August 'India Will Going to Play Zimbabwe'"

In [6]: #How to access character of a string?
x="Python"
#1.By Indexing
#2.By Using Slicing

In [7]: #Python supports both positive and negative indexing
#positive indexing --> left to right (forward direction) --> first element will be 0
#Negative indexing --> right to left(Backward direction) --> last elementb will be -1

In [8]: #By Indexing--> accessing the character

x="This is our Python course"
print(len(x))
print(x[12])
print(x[20])
print(x[-2])
print(x[-12])
print(x[13])
#print(x[200])#index error:String index out of range
#print(x[25])

#Note: if we are trying to access chaaracter of the string within
#the index then you will get the character value else you will get the error
#Indexing last value -->len(string)-1

25
P
o
s
y
y

In [9]: #String Input from the user
#We need to print positive indexing and negative indexing
x="Python is a Programming language"
for i in range(len(x)):
    print("Forward index is "+str(i)+" Backward index "+str(i-len(x)),"Character is",x[i])

Forward index is 0 Backward index -33 Character is P
Forward index is 1 Backward index -32 Character is y
Forward index is 2 Backward index -31 Character is t
Forward index is 3 Backward index -30 Character is h
Forward index is 4 Backward index -29 Character is o
Forward index is 5 Backward index -28 Character is n
Forward index is 6 Backward index -27 Character is s
Forward index is 7 Backward index -26 Character is i
Forward index is 8 Backward index -25 Character is s
Forward index is 9 Backward index -24 Character is g
Forward index is 10 Backward index -23 Character is r
Forward index is 11 Backward index -22 Character is a
Forward index is 12 Backward index -21 Character is l
Forward index is 13 Backward index -20 Character is P
Forward index is 14 Backward index -19 Character is r
Forward index is 15 Backward index -18 Character is o
Forward index is 16 Backward index -17 Character is g
Forward index is 17 Backward index -16 Character is r
Forward index is 18 Backward index -15 Character is a
Forward index is 19 Backward index -14 Character is m
Forward index is 20 Backward index -13 Character is m
Forward index is 21 Backward index -12 Character is i
Forward index is 22 Backward index -11 Character is n
Forward index is 23 Backward index -10 Character is g
Forward index is 24 Backward index -9 Character is 
Forward index is 25 Backward index -8 Character is l
Forward index is 26 Backward index -7 Character is e
Forward index is 27 Backward index -6 Character is n
Forward index is 28 Backward index -5 Character is g
Forward index is 29 Backward index -4 Character is u
Forward index is 30 Backward index -3 Character is a
Forward index is 31 Backward index -2 Character is g
Forward index is 32 Backward index -1 Character is e

In [10]: #By Slicing --> access a piece of string
x="Python is good programming language"

In [11]: #Syntax of Slicing:
#x[begin_index : ending_index : Steps]
#Begin_index --> from where we have to consider the slicw(Substring)
#end_index --> we have to terminate the slice(substring) at end_index-1
#Step: Increemented value

In [12]: x="Python is good programming language"
x[: ]

Out[12]: 'Python is good programming language'

In [13]: x="Python is good programming language"
x[0:9:3]

Out[13]: 'Ph '

In [14]: #Note:
#If we are not specifiying the begin index then it will always consider begin index as 0 of the string
#If we are not specifying the ending index then python will consider the ending index as the length
#of the string.
#The default value for step is 1

In [15]: s="Learning python is very very easy!!!"
print(s[1:7:1])
print(s[1:7:2])

earnin
erl

In [16]: print(s[:7])

Learnin

In [17]: print(s[7:])

g python is very very easy!!!

In [18]: print(s[: :])

Learning python is very very easy!!!

In [19]: print(s[: :1])

Learning python is very very easy!!!

In [20]: #Bahviour of slicing
#1.x[begin_index:end_index:]
#2.Step value either be +ve or -ve
#If step value is -ve --> slicing will be done in backward direction
#If step valye is +ve --> slicing will be done in forward direction

In [21]: s="Learning python is very very easy!!!"
print(s[-3 :-8:-2])

!se

In [22]: s="abcdefghij"
print(s[1:6:1])
print(s[1:6:2])

bcdef
bdf

In [23]: s="abcdefghij"
print(s[: :1])

abcdefghij

In [24]: s="abcdefghij"
print(s[: :-1])

jihgfedcba

In [25]: s="abcdefghij"
print(s[0:20000:1])

abcdefghij

In [26]: #Note: if you are trying to access index that is not present in the string then slicing will
#never give you an error it will simply print the whole string.

In [27]: #Concatenation operation over string(Addition)
s="Rohit"
x1="Sharma"
#If we are using + operator between the two string then you will get answer as concatenation of
#both the string
s*x1

Out[27]: 'RohitSharma'

In [28]: #Repetation operationr(Multiplication)
x=" Rohit is a good cricket player/n"
x*7

Out[28]: ' Rohit is a good cricket player/n Rohit is a good cricket player/n Rohit is a good cricket player/n Rohit is a good cricket player/n Rohit is a go
od cricket player/n Rohit is a good cricket player/n Rohit is a good cricket player/n'

In [29]: #Membership Operator-->in and not in
s=input("Enter the Main string")
substring =input("Enter the substring")
if substring in s:
    print("Present")
else:
    print("Not present")

Enter the Main stringpython
Enter the substringpython
Present

In [30]: #Removing space from the string
#strip() --> remove the spaces from both sides

In [31]: x=" Python is a very good language "
x.strip()

Out[31]: 'Python is a very good language'

In [32]: #Finding substring
#find() --> return the index of first occurance of the given string.
#If element is not rpesneent then it will return -1

#index()--Exactly same to find(). if element is not present then it will give you an error

In [33]: x="Learning Python is very Easy"
print(x.find("Python")) #9
print(x.find("Java")) #-1
print(x.find("r")) #

9
-1
3

In [34]: #s.find(substring , begin_index , end_index).
x="Learning Python is very Easy"
print(x.find("Python", 10 , 15)) #9
print(x.find("Java")) #-1
print(x.find("r")) #

-1
-1
3

In [35]: x="Learning Python is very Easy"
print(x.index("Python")) #9
#print(x.index("Java")) #error
print(x.index("r")) #

9
3

In [36]: #Uppercase
x="pratyush"
x.upper()

Out[36]: 'PRATYUSH'

In [37]: #Lowercase
x="PRATYUSH"
x.lower()

Out[37]: 'pratyush'

In [38]: #Capitalize --> change first character into the upper case
x="python is very easy to learn"
x.capitalize()

Out[38]: 'Python is very easy to learn'

In [39]: #Title --> change first character of each word
x="pratyush srivastava"
x.title()

Out[39]: 'Pratyush Srivastava'

In [40]: x="Python is a good programming lanaguage"
x.islower()

Out[40]: False

In [41]: x="Python is a good programming lanaguage"
x.isupper()

Out[41]: False

In [42]: x="PYTHON IS A GOOD PROGRAMMING LANGUAGE"
x.isupper()

Out[42]: True

In [43]: x="python is a good programming lanaguage"
x.islower()

Out[43]: True

In [44]: #Count
s="abcbcabcbcabcb"
print(s.count("ab"))

5

In [45]: #Count
s="abcbcabcbcabcb"
print(s.count("ac",0,10))

0

In [46]: #Count
s="abcbcabcbcabcb"
print(s.count("ab",5,10))

1

In [47]: #Replace
#syntax of replace --> string.replace(old_string,new_string)
s="Learning python is very difficult"
s1=s.replace("difficult","easy")
s1

Out[47]: 'Learning python is very easy'

In [48]: #Split function --> convert string into list
s="Learning is very easy"
s.split()

Out[48]: ['Learning', 'is', 'very', 'easy']

In [49]: #Join -->Convert list into string
x=['Learning', 'is', 'very', 'easy']
y=" ".join(x)
y

Out[49]: 'Learning is very easy'

In [50]: #x=input() #->return string only
#print()->print the things that are insdie that function

In [ ]:
```