

```
In [1]: #String Functions:-
```

```
In [2]: # A.Finding length of a string:-
```

```
In [3]: #Example-01:
```

```
In [4]: my_str = "I like exploring the world."
```

```
In [5]: my_str
```

```
Out[5]: 'I like exploring the world.'
```

```
In [6]: len(my_str)
```

```
Out[6]: 27
```

```
In [7]: #Example-02:-
```

```
In [8]: my_str2 = "Washington D.C. is the capital city of the United State."  
my_str2
```

```
Out[8]: 'Washington D.C. is the capital city of the United State.'
```

```
In [9]: len(my_str2)
```

```
Out[9]: 56
```

```
In [10]: #Example-03:-
```

```
In [11]: my_str3 = "Ram is the incarnation of the Lord Vishnu."  
my_str3
```

```
Out[11]: 'Ram is the incarnation of the Lord Vishnu.'
```

```
In [12]: len(my_str3)
```

```
Out[12]: 42
```

```
In [13]: # B.Converting string in to lower-case:-
```

```
In [14]: #Example-01:-
```

```
In [15]: str1 = "Dolphin is the most intelligent water animal."  
str1
```

```
Out[15]: 'Dolphin is the most intelligent water animal.'
```

```
In [16]: str1.lower()
```

```
Out[16]: 'dolphin is the most intelligent water animal.'
```

```
In [17]: #Example-02:-
```

```
In [18]: str2 = "THE SUN IS THE LUMUNOUS SOURCE OF LIGHT."  
str2
```

```
Out[18]: 'THE SUN IS THE LUMUNOUS SOURCE OF LIGHT.'
```

```
In [19]: str2.lower()
```

```
Out[19]: 'the sun is the lumunous source of light.'
```

```
In [20]: #Example-03:-
```

```
In [21]: str3 = "THE LION IS THE KING OF THE FOREST."  
str3
```

```
Out[21]: 'THE LION IS THE KING OF THE FOREST.'
```

```
In [22]: str3.lower()
```

```
Out[22]: 'the lion is the king of the forest.'
```

```
In [23]: # C.Converting string in to upper-case:-
```

```
In [24]: #Example-01:-
```

```
In [25]: s1 = 'We should show love and affection to each others.'
```

```
In [26]: s1
```

```
Out[26]: 'We should show love and affection to each others.'
```

```
In [27]: s1.upper()
```

```
Out[27]: 'WE SHOULD SHOW LOVE AND AFFECTION TO EACH OTHERS.'
```

```
In [28]: #Example-03:-
```

```
In [29]: s2 = "eagles fly high in the sky."  
s2
```

```
Out[29]: 'eagles fly high in the sky.'
```

```
In [30]: s2.upper()
```

```
Out[30]: 'EAGLES FLY HIGH IN THE SKY.'
```

```
In [31]: #Example-03:
```

```
In [32]: s3 = "" saving is the first earning of the life.""  
s3
```

```
Out[32]: ' saving is the first earning of the life.'
```

```
In [33]: s3.upper()
```

```
Out[33]: ' SAVING IS THE FIRST EARNING OF THE LIFE.'
```

```
In [34]: # D.Replacing substitute(s) in a string:-
```

```
In [35]: #Example-01:-
```

```
In [36]: x1 = "They love New York."
```

```
In [37]: x1
```

```
Out[37]: 'They love New York.'
```

```
In [38]: x1.replace('They', 'We')
```

```
Out[38]: 'We love New York.'
```

```
In [39]: #Example-02:-
```

```
In [40]: x2 = 'Jason is a good boy.'  
x2
```

```
Out[40]: 'Jason is a good boy.'
```

```
In [41]: x2.replace('good', "gentle")
```

```
Out[41]: 'Jason is a gentle boy.'
```

```
In [42]: #Example-03:-
```

```
In [43]: x3 = ''' John is a good programmer.'''  
x3
```

```
Out[43]: ' John is a good programmer.'
```

```
In [44]: x3.replace('John','Kelly')
```

```
Out[44]: ' Kelly is a good programmer.'
```

```
In [45]: # E.Counting of the number of occurrences of a substring in a string (s):-
```

```
In [46]: #Example-01:-
```

```
In [47]: y1 = """ Peter is a boy. Peter is a good student. Peter loves eating an apple. There is a saying,'An apple a day keeps a doctor away'. An apple is a very tasty and juicy fruit. Peter is very good in dancing. peter dances very well. Peter also sings very well. Peter also makes painting very good. Everyone praises by saying, 'What a good painting'.Last year,Peter won the first prize in the handwriting competiton. I hope and expect th at he will also win the first prize in drawing competition which is going to held this year."""
```

```
In [48]: y1
```

```
Out[48]: " Peter is a boy. Peter is a good student. Peter loves eating an apple. There is a saying,'An apple a day keeps a\ndoctor away'. An apple is a very tasty and juicy fruit. Peter is very good in dancing. peter dances very well. Peter also\nsings very well. Peter also makes painting very good. Everyone praises by saying, 'What a good painting'.Last year,Pete r\nwon the first prize in the handwriting competiton. I hope and expect that he will also win the first prize in drawing \ncompetition which is going to held this year."
```

```
In [49]: y1.count("Peter")
```

```
Out[49]: 7
```

```
In [50]: y1.count("apple")
```

```
Out[50]: 3
```

```
In [51]: y1.count('An')
```

```
Out[51]: 2
```

```
In [52]: y1.count('an')
```

```
Out[52]: 6
```

```
In [53]: y1.count("also")
```

```
Out[53]: 3
```

```
In [54]: y1.count('The')
```

```
Out[54]: 1
```

```
In [55]: y1.count('good')
```

```
Out[55]: 4
```

```
In [56]: #Example-02:-
```

```
In [57]: y2 = '900,200,300,100,900,200,900,200,100,300,300,900,100,200,500,400,600,600,600,700,800,900,700,500,300,900,900,100,300,900'  
y2
```

```
Out[57]: '900,200,300,100,900,200,900,200,100,300,300,900,100,200,500,400,600,600,600,700,800,900,700,500,300,900,900,100,300,900'
```

```
In [58]: y2.count('900')
```

```
Out[58]: 8
```

```
In [59]: y2.count("100")
```

```
Out[59]: 4
```

```
In [60]: y2.count("300")
```

```
Out[60]: 5
```

```
In [61]: y2.count("500")
```

```
Out[61]: 2
```

```
In [62]: y2.count("700")
```

```
Out[62]: 2
```

```
In [63]: y2.count('600')
```

```
Out[63]: 3
```

```
In [64]: y2.count("800")
```

```
Out[64]: 1
```

```
In [65]: #Example-03:-
```

```
In [66]: y3 = '''Monica is an employee in a software company. She earns $90000 p
er annum. Monica invests the whole sum i.e.$90000 in real
state business. Last year Monica didnt invest her sum i.e.$90000 in re
al state business but in trading business. The company
notified her that her salary from $90000 will be increased to $100000 t
his year. Monica has 3 brothers, 3 sisters, 3 cousins,
3 nieces, 3 uncles and 3 aunties too.'''
y3
```

```
Out[66]: 'Monica is an employee in a software company. She earns $90000 per annu
m. Monica invests the whole sum i.e.$90000 in real\state business. Las
t year Monica didnt invest her sum i.e.$90000 in real state business b
ut in trading business. The company\nnotified her that her salary from
$90000 will be increased to $100000 this year. Monica has 3 brothers, 3
sisters, 3 cousins,\n3 nieces, 3 uncles and 3 aunties too.'
```

```
In [67]: y3.count("Monica")
```

```
Out[67]: 4
```

```
In [68]: y3.count("year")
```

```
Out[68]: 2
```

```
In [69]: y3.count("annum")
```

```
Out[69]: 1
```

```
In [70]: y3.count("business")
```

```
Out[70]: 3
```

```
In [71]: y3.count("$90000")
```

```
Out[71]: 4
```

```
In [72]: y3.count("$")
```

```
Out[72]: 5
```

```
In [73]: y3.count("3")
```

```
Out[73]: 6
```

```
In [74]: # F.Finding of the index value of a substring in a string(s):-
```

```
In [75]: #Example-01:-
```

```
In [76]: z1 = "We drink clean water."  
z1
```

```
Out[76]: 'We drink clean water.'
```



```
In [77]: len(z1)
```

```
Out[77]: 21
```

```
In [78]: z1.find('c')
```

```
Out[78]: 9
```

```
In [79]: z1.find('drink')
```

```
Out[79]: 3
```

```
In [80]: z1.find('.')
```

```
Out[80]: 20
```

```
In [81]: #Example-02:-
```

```
In [82]: z2 = "I have $1000000 in my account. I spent $265 from it."  
z2
```

```
Out[82]: 'I have $1000000 in my account. I spent $265 from it.'
```

```
In [83]: len(z2)
```

```
Out[83]: 52
```

```
In [84]: z2.find('m')
```

```
Out[84]: 19
```

```
In [85]: z2.find('a')
```

```
Out[85]: 3
```

```
In [86]: z2.find('$')
```

Out[86]: 7

```
In [87]: z2.find('1')
```

Out[87]: 8

```
In [88]: z2.find("1000000")
```

Out[88]: 8

```
In [89]: z2.find("0")
```

Out[89]: 9

```
In [90]: z2.find('5')
```

Out[90]: 42

```
In [91]: z2.find('.')
```

Out[91]: 29

```
In [92]: #Example-03:-
```

```
In [93]: z3 = "Pen was invented by the Waterman.The pen is used for writing purpose."
z3
```

Out[93]: 'Pen was invented by the Waterman.The pen is used for writing purpose.'

```
In [94]: z3.find('e')
```

Out[94]: 1

```
In [95]: z3.find('t')
```

Out[95]: 13

```
In [96]: z3.find('T')
```

```
Out[96]: 33
```

```
In [97]: z3.find("P")
```

```
Out[97]: 0
```

```
In [98]: z3.find("p")
```

```
Out[98]: 37
```

```
In [99]: # G.Splitting of a string:-
```

```
In [100]: #Example-01:-
```

```
In [101]: ch = "I love the beauty of the nature. Nature is an open book to study.  
We can find everything in the nature."  
ch
```

```
Out[101]: 'I love the beauty of the nature. Nature is an open book to study. We c  
an find everything in the nature.'
```

```
In [102]: ch.split('.')
```

```
Out[102]: ['I love the beauty of the nature',  
           ' Nature is an open book to study',  
           ' We can find everything in the nature',  
           '']
```

```
In [103]: ch.split(' ')
```

```
Out[103]: ['I',  
           'love',  
           'the',  
           'beauty',
```

```
'of',  
'the',  
'nature.',  
'Nature',  
'is',  
'an',  
'open',  
'book',  
'to',  
'study.',  
'We',  
'can',  
'find',  
'everything',  
'in',  
'the',  
'nature.']
```

```
In [104]: ch.split('b')
```

```
Out[104]: ['I love the ',  
          'eauty of the nature. Nature is an open ',  
          'ook to study. We can find everything in the nature.']
```

```
In [105]: ch.split("book")
```

```
Out[105]: ['I love the beauty of the nature. Nature is an open ',  
          ' to study. We can find everything in the nature.']
```

```
In [106]: ch.split('Nature')
```

```
Out[106]: ['I love the beauty of the nature. ',  
          ' is an open book to study. We can find everything in the nature.']
```

```
In [107]: ch.split('nature')
```

```
Out[107]: ['I love the beauty of the ',  
          '. Nature is an open book to study. We can find everything in the ',
```

```
['.']
```

```
In [108]: #Example-02:-
```

```
In [109]: ch2 = 'There are six seasons. They are: Spring, Summer, Rainy, Autumn,  
            Winter and Fall '  
ch2
```

```
Out[109]: 'There are six seasons. They are: Spring, Summer, Rainy, Autumn, Winter  
and Fall '
```

```
In [110]: ch2.split(',')
```

```
Out[110]: ['There are six seasons. They are: Spring',  
           ' Summer',  
           ' Rainy',  
           ' Autumn',  
           ' Winter and Fall ']
```

```
In [111]: ch2.split("are")
```

```
Out[111]: ['There ',  
           ' six seasons. They ',  
           ': Spring, Summer, Rainy, Autumn, Winter and Fall ']
```

```
In [112]: ch2.split(":")
```

```
Out[112]: ['There are six seasons. They are',  
           ' Spring, Summer, Rainy, Autumn, Winter and Fall ']
```

```
In [113]: #Example-03:
```

```
In [114]: ch3 = '10,15,21,25,30,49,59,79,80,81,85,92,99'  
ch3
```

```
Out[114]: '10,15,21,25,30,49,59,79,80,81,85,92,99'
```

```
In [115]: ch3.split('10')
```

```
Out[115]: ['', ' ', 15, 21, 25, 30, 49, 59, 79, 80, 81, 85, 92, 99]
```

```
In [116]: ch3.split('9')
```

```
Out[116]: ['10,15,21,25,30,4', ' ', 5, ' ', 7, ' ', 80, 81, 85, ' ', 2, ' ', ' ', ' ']
```

```
In [117]: ch3.split('2')
```

```
Out[117]: ['10,15,', ' ', 1, ' ', 5, 30, 49, 59, 79, 80, 81, 85, 9, ' ', 99]
```

```
In [118]: ch3.split('0')
```

```
Out[118]: ['1', ' ', 15, 21, 25, 3, ' ', 49, 59, 79, 8, ' ', 81, 85, 92, 99]
```

```
In [119]: ch3.split("30")
```

```
Out[119]: ['10,15,21,25,', ' ', 49, 59, 79, 80, 81, 85, 92, 99]
```

```
In [120]: ch3.split(",")
```

```
Out[120]: ['10', '15', '21', '25', '30', '49', '59', '79', '80', '81', '85', '92', '99']
```