

```
In [5]: s = "this is a test string"
len(s)
```

Out[5]: 21

```
In [6]: s = "this is a test string"
print(s)
length = len(s)
print("The string is " + str(length) + " characters long")
```

this is a test string
The string is 21 characters long

```
In [7]: s = "this is a test string"
s.capitalize()
```

Out[7]: 'This is a test string'

```
In [10]: s = "this is a test string"
s.upper()
```

Out[10]: 'THIS IS A TEST STRING'

```
In [12]: s = "this is a test string"
s[2] #access 3rd character in string s
```

Out[12]: 'i'

```
In [15]: s = "this is a test string"
s[len(s)-2] #access 2nd last character in string
```

Out[15]: 'n'

```
In [20]: s = "this is a test string"
s[-2] #access 2nd last character in string - NEGATIVE INDEX
```

Out[20]: 'n'

```
In [14]: s = "this is a test string"
secondndlast = s[len(s)-2] #access 2nd last character in string
print(secondndlast) #nicer with print function
```

n

```
In [21]: s = "this is a test string"
secondndlast = s[-2] #access 2nd last character in string
print(secondndlast) #nicer with print function
```

n

```
In [16]: list = ["Red", "Green", "Blue"]  
         "Purple" in list
```

Out[16]: False

```
In [17]: list = ["Red", "Green", "Blue"]  
         "Red" in list
```

Out[17]: True

```
In [22]: list = ["Red", "Green", "Blue"]  
         list[-1] #access last in list
```

Out[22]: 'Blue'

```
In [23]: list = ["Red", "Green", "Blue"]  
         last = list[-1] #access last in list  
         print(last)
```

Blue

```
In [26]: list = ["Red", "Green", "Blue"]  
         list.sort() #sorts in ascending order  
         print(list)
```

['Blue', 'Green', 'Red']

```
In [30]: list = ["Red", "Green", "Blue"]  
         list.sort(reverse = True) #sorts in DESCENDING order  
         print(list)
```

['Red', 'Green', 'Blue']

```
In [31]: list = ["Red", "Green", "Blue"]  
         list.sort(key = len) #sorts by string length  
         print(list)
```

['Red', 'Blue', 'Green']

```
In [32]: list = ["Red", "Green", "Blue"]  
         list[0]
```

Out[32]: 'Red'

```
In [34]: list = ["Red", "Green", "Blue"]  
         list[1:] #starting listing after the 1st element
```

Out[34]: ['Green', 'Blue']

```
In [35]: list = ["Red", "Green", "Blue"]  
         list[2:] #starting listing after the 2nd element
```

Out[35]: ['Blue']

```
In [36]: list = ["Red", "Green", "Blue"]  
list[:2] #listing only first 2 elements
```

```
Out[36]: ['Red', 'Green']
```

```
In [38]: list = ["Red", "Green", "Blue"]  
list[:-1] #listing all but the last element
```

```
Out[38]: ['Red', 'Green']
```

```
In [43]: list = ["Red", "Green", "Blue"]  
list.append("Yellow")  
print(list)
```

```
['Red', 'Green', 'Blue', 'Yellow']
```

```
In [44]: list = ["Red", "Green", "Blue", "Yellow"]  
list[0] = "Purple" #replaces element at position 0  
print(list)
```

```
['Purple', 'Green', 'Blue', 'Yellow']
```

```
In [49]: list = ["Red", "Green", "Blue", "Yellow"]  
list[1:1] = ["Purple"] #puts new element at position 1 and moves others further  
print(list)
```

```
['Red', 'Purple', 'Green', 'Blue', 'Yellow']
```

```
In [50]: list = ["Red", "Green", "Blue", "Yellow"]  
list[0:2] = ["Purple"] #puts new element at position 0 and keeps only those at 2 and onwards  
print(list)
```

```
['Purple', 'Blue', 'Yellow']
```