

String Methods

String is immutable collection, after creating string changes cannot do. The string methods are immutable, after operation these methods return new string object.

Case Conversion methods

These methods are used for converting string one case to another

1. upper()
2. lower()
3. capitalize()
4. title()
5. swapcase()

Example: # Write a program to convert string into uppercase str1=input("Enter any string ") # using predefined method str2=str1.upper() print(str1,str2,sep="\n") # without using predefined method str2="" for ch in str1: if ch>='a' and ch<='z': str2=str2+chr(ord(ch)-32) else: str2=str2+ch print(str2)	Output Enter any string AbCd123 AbCd123 ABCD123 ABCD123
Example # Write a program to convert string into lowercase	Output Enter any string ABC ABC abc

<pre> str1=input("Enter any string ") print(str1) # using predefine method str2=str1.lower() print(str2) # without using predefine method str2="" for ch in str1: if ch>='A' and ch<='Z': str2=str2+chr(ord(ch)+32) else: str2=str2+ch print(str2) </pre>	<p>abc</p>
<p>Example</p> <p># Write a program to capitalize string (first character of string is capital letter # remaining or lowercase)</p> <pre> str1=input("Enter any string ") print(str1) # using predefine method str2=str1.capitalize() print(str2) # without using predefine method str2="" for i in range(len(str1)): if i==0: if str1[i]>'a' and str1[i]<='z': str2=str2+chr(ord(str1[i])-32) else: str2=str2+str1[i] </pre>	<p>Output</p> <p>Enter any string python python Python Python</p> <p>Enter any string pYthON pYthON Python Python</p> <p>Enter any string 1python 1python 1python 1python</p>

<pre> elif str1[i]>='A' and str1[i]<='Z': str2=str2+chr(ord(str1[i])+32) else: str2=str2+str1[i] print(str2) </pre>	
<p>Example</p> <p># Write a program to titlecase string</p> <p># titlecase is nothing every word first letter is capitalized and remaining are lowercase</p> <pre> str1=input("Enter any string ") print(str1) # predefined methods list1=str1.split() list1=[s.capitalize() for s in list1] str2=' '.join(list1) print(str2) # without using predefined methods str2="" i,l=0,len(str1) while i<l: if i==0: if str1[i]>='a' and str1[i]<='z': str2=str2+chr(ord(str1[i])-32) else: str2=str2+str1[i] elif str1[i]==' ': if str1[i+1]>='a' and str1[i+1]<='z': str2=str2+" </pre>	<p>Output</p> <p>Enter any string python language</p> <p>python language</p> <p>Python Language</p> <p>Python Language</p>

<pre> "+chr(ord(str1[i+1])-32) else: str2=str2+" "+str1[i+1] i=i+1 elif str1[i]>='A' and str1[i]<='Z': str2=str2+chr(ord(str1[i])+32) else: str2=str2+str1[i] i=i+1 print(str2) </pre>	
<p>Example</p> <p># Write a program to swapcase string</p> <p># swapcase is nothing lowercase letters to uppercase and uppercase letters to lowercase</p> <pre> str1=input("Enter any string ") print(str1) # using predefined method str2=str1.swapcase() print(str2) # without using predefined method str2="" for ch in str1: if ch>='a' and ch<='z': str2=str2+chr(ord(ch)-32) elif ch>='A' and ch<='Z': str2=str2+chr(ord(ch)+32) else: str2=str2+ch print(str2) </pre>	<p>Output</p> <p>Enter any string PyThON</p> <p>PyThON</p> <p>pYtHon</p> <p>pYtHon</p>

String examine methods

These methods are used for comparing strings or examine strings.
These methods return Boolean value (True/False)

1. isalpha()
2. isalnum()
3. isdigit()
4. isspace()
5. isupper()
6. islower()

isalpha() : This method returns True, if all characters inside string are alphabets else return False.

Example	Output
<pre># Write a program to find input string alphabetic string or not str1=input("Enter any string ") # using predefined method res=str1.isalpha() print(res) # without using predefined method res=True for ch in str1: if (ch>='a' and ch<='z') or (ch>='A' and ch<='Z'): pass else: res=False break</pre>	<pre>Enter any string PYTHON True True Enter any string P123 False False</pre>

print(res)	
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isalnum() : this method returns True, if string contain alphabet or digits else return False

"abc" → True

"123" → True

"ab123" → True

"ab\$" → False

Example	Output
<pre># Write a program to find input string alpha numeric string or not str1=input("Enter any string ") # predefined method res=str1.isalnum() print(res) # without using predefined method res=True for ch in str1: if (ch>='a' and ch<='z') or (ch>='A' and ch<='Z') or (ch>='0' and ch<='9'): pass else: res=False break print(res)</pre>	<pre>Enter any string python True True Enter any string 123 True True Enter any string p123 True True Enter any string p 123 False False</pre>

isdigit() : This method returns True, if string contains only digits else False

<p>Example:</p> <pre># Write a program to find input string contains only digits or not str1=input("Enter any string ") # predefined method res=str1.isdigit() print(res) # without using predefined method res=True for ch in str1: if ch>='0' and ch<='9': pass else: res=False break print(res)</pre>	<p>Output</p> <pre>Enter any string 123 True True Enter any string A123 False False Enter any string 1.2 False False</pre>
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isspace(): this method returns True, if string contains only spaces else False

Example:

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>>> str1="      "
>>> str1.isspace()
True
>>> str2="a b c d"
>>> str2.isspace()
False
>>> str3=""
>>> str3.isspace()
False
```