

Python String Functions

Assume s, t, and t2 are string variables, and p and q are integer variables.

Basic operations	
len(s)	Returns the length of s.
s[p]	Returns the character at index p in string s. (Indices start at zero!)
s[p:q]	Returns the substring consisting of all characters in s starting at index p and ending at index q-1, inclusive. Note: if either p or q (or both) is left out, Python will assume p=0 (beginning of the string) and q=len(s) (the end of the string). Ex: s[1:] will return s with the first character left out. Using negative numbers for p and/or q counts from the end of the string: Ex: s[-1] returns the last character in s; s[-2:] returns the last two characters in s.
s + t	Returns the string concatenation of s and t (a new string consisting of all the characters in s, followed immediately by all the characters in t. Note: just doing s + t doesn't change s or t. You must store this new string somewhere if you want to use it later, by saying something like z = s + t (z will be a new string variable).
s += t	Same as s = s + t. In other words, concatenates s with t and stores the new string back in s.
Tests	
s in t	Returns True if s occurs as a substring somewhere in t, False otherwise.
s not in t	Returns False if s occurs as a substring somewhere in t, True otherwise.
s.isalpha()	Returns True if s contains only alphabetic characters and len(s) > 0.
s.isdigit()	Returns True if s contains only numeric characters and len(s) > 0.
s.islower()	Returns True if all of the alphabetic characters in s are lowercase and len(s) > 0.
s.isupper()	Returns True if all of the alphabetic characters in s are uppercase and len(s) > 0.
s.isspace()	Returns True if all of the characters in s are spaces, tabs, or newlines, and len(s) > 0.
s.startswith(t)	Returns True if t occurs as a substring at the beginning of s.
s.endswith(t)	Returns True if t occurs as a substring at the end of s.
Searching, replacing, and stripping	
s.find(t)	Returns the lowest index in s where t is found (searches left to right). Returns -1 if t is not in s.
s.find(t, p)	Same as s.find(t), but starts searching left to right starting at index p.
s.replace(t, t2)	Returns a copy of s with all occurrences of t replaced by t2.
s.rstrip()	Returns a copy of s with all whitespace removed from the right side of the string.
Transformations	
s.lower()	Returns a copy of s with all of the alphabetic characters converted to lowercase. Any non-alphabetic character (or those that are already lowercase) are copied unchanged.
s.upper()	Same as s.lower(), but converts to uppercase.
Splitting	
s.split(t)	Divides string s into pieces based on where the separator t occurs. Usually used in a program as s1, s2, ... = s.split(t) to capture the string pieces that are returned.

Notice that len() is the only function that is not "attached" to a string with a period.