

## String Methods

This is a list of common string methods. In it,  $S$  is the string to which the method is applied, and  $s$  and  $t$  are other strings.

| Operation                   | Description  |
|-----------------------------|--|
| <code>S.capitalize()</code> | If the first character of $S$ is a letter, capitalize it   |
| <code>S.count(s)</code>     | Count the number of times $s$ occurs in $S$  |
| <code>S.endswith(s)</code>  | <b>True</b> if $S$ ends with $s$ ; <b>False</b> otherwise  |
| <code>S.find(s)</code>      | Return the index of the first occurrence of $s$ in $S$ ; $-1$ if $s$ not in $S$                        |
| <code>S.index(s)</code>     | Return the index of the first occurrence of $s$ in $S$ ; <b>ValueError</b> exception if $s$ not in $S$ |
| <code>S.isalnum()</code>    | <b>True</b> if $S$ contains only alphanumerics (letters and digits); <b>False</b> otherwise            |
| <code>S.isalpha()</code>    | <b>True</b> if $S$ contains only alphabets (letters); <b>False</b> otherwise                           |
| <code>S.isdigit()</code>    | <b>True</b> if $S$ contains only digits; <b>False</b> otherwise  |
| <code>S.islower()</code>    | <b>True</b> if all letters in $S$ are lower case; <b>False</b> otherwise                               |
| <code>S.isspace()</code>    | <b>True</b> if $S$ contains only white space; <b>False</b> otherwise                                   |
| <code>S.isupper()</code>    | <b>True</b> if all letters in $S$ are upper case; <b>False</b> otherwise                               |
| <code>S.lower()</code>      | Change all upper case letters in $S$ to lower case   |
| <code>S.lstrip()</code>     | Delete all leading white space from $S$ and return the result  |
| <code>S.replace(s,t)</code> | Replace all occurrences of $s$ with $t$ in $S$   |
| <code>S.rfind(s)</code>     | Return the index of the last occurrence of $s$ in $S$ ; $-1$ if $s$ not in $S$                         |
| <code>S.rindex(s)</code>    | Return the index of the last occurrence of $s$ in $S$ ; <b>ValueError</b> exception if $s$ not in $S$  |
| <code>S.rstrip()</code>     | Delete all trailing white space from $S$   |
| <code>S.strip()</code>      | Delete all leading and trailing white space from $S$   |
| <code>S.swapcase()</code>   | Change all upper case letters in $S$ to lower case and all lower case letters to upper case            |
| <code>S.title()</code>      | Capitalize each word in $S$  |
| <code>S.upper()</code>      | Change all lower case letters in $S$ to upper case   |

## List Methods

This is a list of list methods. In it,  $L$  is the list to which the method is applied,  $M$  is a list,  $x$  is an element to be added to, looked for, or removed from, a list, and  $i$  is an index of a list element.

| Operation                  | Description  |
|----------------------------|--|
| <code>L.append(x)</code>   | Append element $x$ to $L$  |
| <code>L.count(x)</code>    | Count the number of times $x$ occurs in $L$  |
| <code>L.extend(M)</code>   | Extend $L$ by adding the elements of $M$ at the end  |
| <code>L.index(x)</code>    | Return the index of the first occurrence of $x$ in $L$ ; <b>ValueError</b> exception if $x$ not in $L$ |
| <code>L.insert(i,x)</code> | Insert $x$ at position $i$ in $L$  |
| <code>L.pop()</code>       | Remove and return the last element of $L$  |
| <code>L.pop(i)</code>      | Remove and return the element of $L$ at position $i$ ; <b>IndexError</b> exception if $i$ out of range |
| <code>L.remove(x)</code>   | Remove the first occurrence of $x$ from $L$ ; <b>ValueError</b> exception if $x$ not in $L$            |
| <code>L.reverse()</code>   | Reverse $L$ in place (does <i>not</i> make a copy)   |
| <code>L.sort()</code>      | Sort $L$ in place (does <i>not</i> make a copy)  |