Python List

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# Python List

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| * Lists are used to store multiple items in a single variable. * Lists are created using square brackets * The list is changeable, meaning that we can change, add, and remove items in a list after it has been created. * From Python's perspective, lists are defined as objects with the data type 'list' |  |
| **Example Create a List:**  >>> thislist = ["apple", "banana", "cherry"]  >>> print(thislist)  **Lists allow duplicate values:**  >>> thislist = ["apple", "banana", "cherry", "apple", "cherry"]  >>> print(thislist)  **Print the number of items in the list:**  >>> thislist = ["apple", "banana", "cherry"]  >>> print(len(thislist))  **String, int and boolean data types:**  >>> list1 = ["apple", "banana", "cherry"]  >>> list2 = [1, 5, 7, 9, 3]  >>> list3 = [True, False, False]  >>>list4 = ["abc", 34, True, 40, "male"]  **What is the data type of a list?**  >>> mylist = ["apple", "banana", "cherry"]  >>> print(type(mylist))  Using the list() constructor to make a List:  >>> thislist = list(("apple", "banana", "cherry")) # note the double round-brackets  >>> print(thislist) | List items are ordered, changeable, and allow duplicate values.  List items are indexed, the first item has index [0], the second item has index [1] etc. |

List Methods

Python has a set of built-in methods that you can use on lists.

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| **Method** | **Description** |
| [append()](https://www.w3schools.com/python/ref_list_append.asp) | Adds an element at the end of the list |
| [clear()](https://www.w3schools.com/python/ref_list_clear.asp) | Removes all the elements from the list |
| [copy()](https://www.w3schools.com/python/ref_list_copy.asp) | Returns a copy of the list |
| [count()](https://www.w3schools.com/python/ref_list_count.asp) | Returns the number of elements with the specified value |
| [extend()](https://www.w3schools.com/python/ref_list_extend.asp) | Add the elements of a list (or any iterable), to the end of the current list |
| [index()](https://www.w3schools.com/python/ref_list_index.asp) | Returns the index of the first element with the specified value |
| [insert()](https://www.w3schools.com/python/ref_list_insert.asp) | Adds an element at the specified position |
| [pop()](https://www.w3schools.com/python/ref_list_pop.asp) | Removes the element at the specified position |
| [remove()](https://www.w3schools.com/python/ref_list_remove.asp) | Removes the item with the specified value |
| [reverse()](https://www.w3schools.com/python/ref_list_reverse.asp) | Reverses the order of the list |
| [sort()](https://www.w3schools.com/python/ref_list_sort.asp) | Sorts the list |