

Lists and Tuples Operations Cheat Sheet

Lists and tuples are both sequences, so they share a number of sequence operations. But, because lists are mutable, there are also a number of methods specific just to lists. This cheat sheet gives you a run down of the common operations first, and the list-specific operations second.

Common sequence operations

- `len(sequence)` Returns the length of the sequence
- `for element in sequence` Iterates over each element in the sequence
- `if element in sequence` Checks whether the element is part of the sequence
- `sequence[i]` Accesses the element at index `i` of the sequence, starting at zero
- `sequence[i:j]` Accesses a slice starting at index `i`, ending at index `j-1`. If `i` is omitted, it's 0 by default. If `j` is omitted, it's `len(sequence)` by default.
- `for index, element in enumerate(sequence)` Iterates over both the indexes and the elements in the sequence at the same time

Check out the [official documentation for sequence operations](#).

List-specific operations and methods

- `list[i] = x` Replaces the element at index `i` with `x`
- `list.append(x)` Inserts `x` at the end of the list
- `list.insert(i, x)` Inserts `x` at index `i`
- `list.pop(i)` Returns the element at index `i`, also removing it from the list. If `i` is omitted, the last element is returned and removed.
- `list.remove(x)` Removes the first occurrence of `x` in the list
- `list.sort()` Sorts the items in the list
- `list.reverse()` Reverses the order of items of the list
- `list.clear()` Removes all the items of the list
- `list.copy()` Creates a copy of the list
- `list.extend(other_list)` Appends all the elements of `other_list` at the end of list

Most of these methods come from the fact that lists are mutable sequences. For more info, see the [official documentation for mutable sequences](#) and the [list specific documentation](#).

List comprehension

- `[expression for variable in sequence]` Creates a new list based on the given sequence. Each element is the result of the given expression.

- [expression for variable in sequence if condition] Creates a new list based on the given sequence. Each element is the result of the given expression; elements only get added if the condition is true.