

List Methods:

Modifying List Contents:

1. **append(x)**: Adds an element `x` to the end of the list.
2. **extend(iterable)**: Extends the list by appending elements from the iterable.
3. **insert(i, x)**: Inserts element `x` at the specified index `i`.
4. **remove(x)**: Removes the first occurrence of element `x` from the list.
5. **pop([i])**: Removes and returns the element at the specified index `i` (or the last element if no index is specified).
6. **clear()**: Removes all elements from the list.

Sorting and Reversing:

7. **sort(key=None, reverse=False)**: Sorts the list in ascending order. You can provide a custom key function and specify **reverse=True** for descending order.
8. **reverse()**: Reverses the order of elements in the list.

Tuple Methods:

Tuples are Immutable:

9. As tuples are immutable, there are no methods that directly modify their content.

Dictionary Methods:

Modifying Dictionary Contents:

10. **update(iterable)**: Updates the dictionary with elements from another dictionary or iterable.
11. **pop(key[, default])**: Removes and returns the value associated with the specified key. If the key is not found and a default value is provided, it returns the default value.
12. **popitem()**: Removes and returns an arbitrary (key, value) pair from the dictionary.

Modifying Keys and Values:

13. **clear()**: Removes all items from the dictionary.
14. **setdefault(key[, default])**: Returns the value for a given key. If the key is not present, inserts the key with the default value.

Retrieving and Removing Items:

15. **get(key[, default])**: Returns the value for a given key. If the key is not present, returns the default value.
16. **items()**: Returns a view of the dictionary's (key, value) pairs.
17. **keys()**: Returns a view of the dictionary's keys.

18. **values()**: Returns a view of the dictionary's values.

Other Methods:

19. **fromkeys(seq[, value])**: Creates a new dictionary with keys from the given iterable and values set to the specified value.

20. **copy()**: Returns a shallow copy of the dictionary.

These methods provide various ways to modify the content and structure of lists, tuples, and dictionaries in Python.