List, Set, Tuple, and Dictionary Methods in Python

List Methods Visualization

append(x): Adds x to the end of the list.

Example: After append(6): [1, 2, 3, 4, 5, 6]

extend(iterable): Extends list with iterable elements.

Example: After extend([7, 8]): [1, 2, 3, 4, 5, 6, 7, 8]

insert(i, x): Inserts x at position i.

Example: After insert(2, 99): [1, 2, 99, 3, 4, 5, 6]

remove(x): Removes the first occurrence of x.

Example: After remove(2): [1, 99, 3, 4, 5, 6]

pop(i): Removes and returns the element at index i.

Example: After pop(3): [1, 99, 3, 5, 6]

reverse(): Reverses the list.

Example: After reverse: [6, 5, 3, 99, 1]

sort(): Sorts the list in ascending order.

Example: After sort: [1, 3, 5, 6, 99]

Set Methods Visualization

add(x): Adds x to the set.

Example: {1, 2, 3, 4} -> add(5): {1, 2, 3, 4, 5}

update(iterable): Updates set with iterable.

Example: {1, 2, 3} -> update([4, 5]): {1, 2, 3, 4, 5}

remove(x): Removes x; raises error if absent.

Example: {1, 2, 3} -> remove(2): {1, 3}

discard(x): Removes x if it exists.

Example: {1, 2, 3} -> discard(4): {1, 2, 3}

union(set): Returns union of sets.

Example: {1, 2} union {2, 3}: {1, 2, 3}

intersection(set): Returns intersection of sets.

Example: {1, 2} intersection {2, 3}: {2}

Tuple Methods Visualization

count(x): Returns the count of x in tuple. Example: (1, 2, 3, 2).count(2) -> 2

index(x): Returns index of first x. Example: (1, 2, 3).index(3) -> 2

Dictionary Methods Visualization

keys(): Returns all keys.

Example: {'a': 1, 'b': 2}.keys(): ['a', 'b']

values(): Returns all values.

Example: {'a': 1, 'b': 2}.values(): [1, 2]

items(): Returns key-value pairs.

Example: {'a': 1}.items(): [('a', 1)]

get(k): Gets value of key k.

Example: {'a': 1}.get('a'): 1

update(): Updates with key-value pairs.

Example: {'a': 1}.update({'b': 2}): {'a': 1, 'b': 2}

pop(k): Removes and returns value.

Example: {'a': 1}.pop('a'): {}

clear(): Clears all entries.

Example: {'a': 1}.clear(): {}