Linear and Binary Search (Optional)

If you're curious about how linear and binary search look in code, here are a couple of implementations in Python:

def linear\_search(list, key):

"""If key is in the list returns its position in the list,

otherwise returns -1."""

for i, item in enumerate(list):

if item == key:

return i

return -1

def binary\_search(list, key):

"""Returns the position of key in the list if found, -1 otherwise.

List must be sorted.

"""

left = 0

right = len(list) - 1

while left <= right:

middle = (left + right) // 2

if list[middle] == key:

return middle

if list[middle] > key:

right = middle - 1

if list[middle] < key:

left = middle + 1

return -1

Don't worry if this seems complex! Understanding this code isn’t required for understanding how to use binary search in troubleshooting.