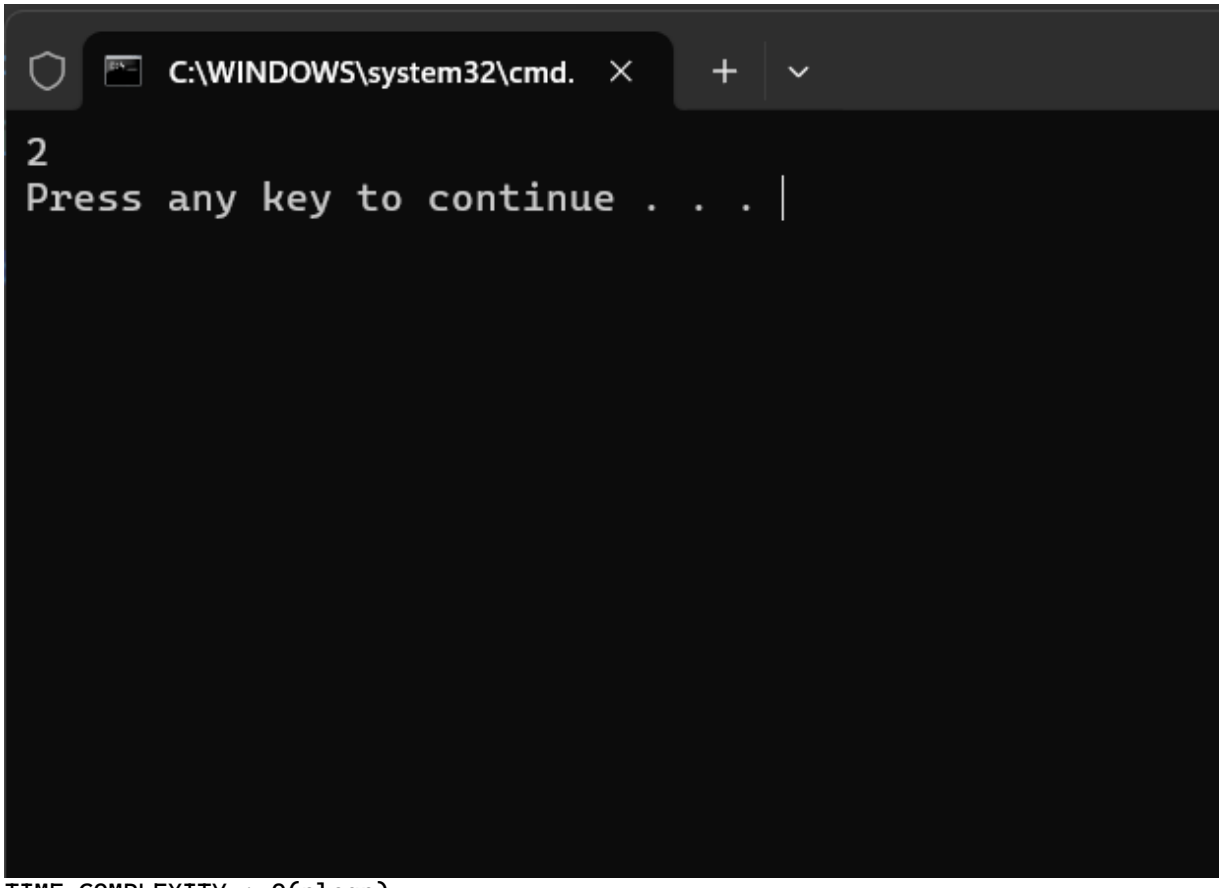
56) . Longest Continuous Subarray With Absolute Diff Less Than or Equal to Limit
Given an array of integers nums and an integer limit, return the size of the longest non-empty subarray such that the absolute difference between any two elements of this subarray is less than or equal to limit.

CODE:

```
from collections import deque
import heapq

def longest_subarray(nums, limit):
    max_heap, min_heap = [], []
    left = 0

    for right, num in enumerate(nums):
        heapq.heappush(max_heap, (-num, right))
        heapq.heappush(min_heap, (num, right))

        while -max_heap[0][0] - min_heap[0][0] > limit:
            left = min(max_heap[0][1], min_heap[0][1]) + 1
            while max_heap[0][1] < left:
                heapq.heappop(max_heap)
            while min_heap[0][1] < left:
                heapq.heappop(min_heap)

        yield right - left + 1
nums=[8,2,4,7]
limit=4
result = max(longest_subarray(nums, limit))
print(result)
```

OUTPUT :



TIME COMPLEXITY : O(nlogn)