

56. Longest continuous subarray with absolute diff less than or equal to limit

Code:

```
from collections import deque

def longestSubarray(nums, limit):
    max_deque = deque()
    min_deque = deque()
    left = 0
    max_len = 0

    for right in range(len(nums)):
        while max_deque and nums[max_deque[-1]] < nums[right]:
            max_deque.pop()
        while min_deque and nums[min_deque[-1]] > nums[right]:
            min_deque.pop()

        max_deque.append(right)
        min_deque.append(right)

        while nums[max_deque[0]] - nums[min_deque[0]] > limit:
            left += 1
            if max_deque[0] < left:
                max_deque.popleft()
            if min_deque[0] < left:
                min_deque.popleft()

        max_len = max(max_len, right - left + 1)

    return max_len

nums = [8, 2, 4, 7]
limit = 4
print(longestSubarray(nums, limit))

nums = [10, 1, 2, 4, 7, 2]
limit = 5
print(longestSubarray(nums, limit))
```

Output:



```
2
4
```

Time Complexity:

- $T(n) = O(n)$