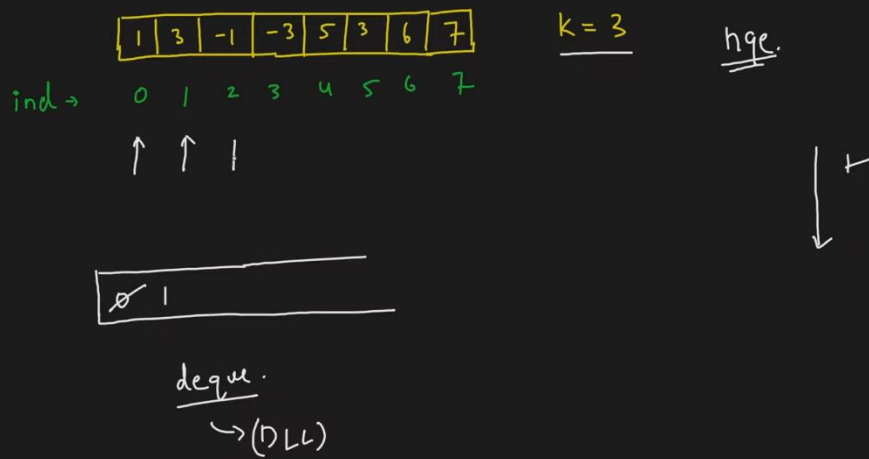


TUF



TUF

1	3	-1	-3	5	3	6	7
---	---	----	----	---	---	---	---

ind →    0   1   2   3   4   5   6   7

↑   ↑   ↑

k = 3

hge.

$\begin{array}{c} 3 \\ -1 \end{array} \downarrow$

~~0~~ | 2.

deque.  
→ (DLL)

TUF

1	3	-1	-3	5	3	6	7
---	---	----	----	---	---	---	---

ind →    0   1   2   3   4   5   6   7

↑   ↑   ↑   ↑

k = 3

hge.

$\begin{array}{c} 3 \\ -1 \end{array} \downarrow$

~~0~~ | 2

deque.  
→ (DLL)

3

TUF

ind → 

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

↑   ↑   ↑   ↑

0	1	2	3
---	---	---	---

deque.  
→ (DLL)

k = 3

hge.

3  
-1  
-3

3

TUF

Suggested: Striver's Graph Series | Graphs | Data Structures and A...



ind → 

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

↑   ↑   ↑   ↑

0	1	2	3
---	---	---	---

deque.  
→ (DLL)

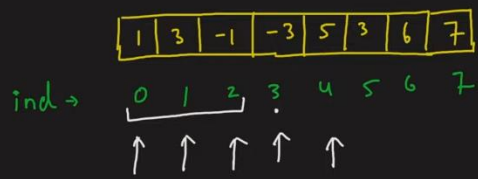
k = 3

hge.

3  
-1  
-3

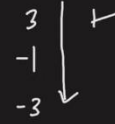
3 3

TUF



k = 3

hqe.

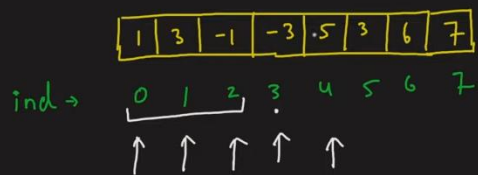


~~0~~ 1 2 3

deque.  
→ (DLL)

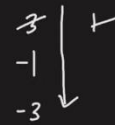
3 3

TUF



k = 3

hqe.

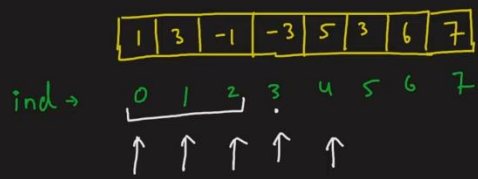


~~0~~ 1 2 3

deque.  
→ (DLL)

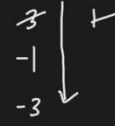
3 3

TUF



k = 3

hqe.

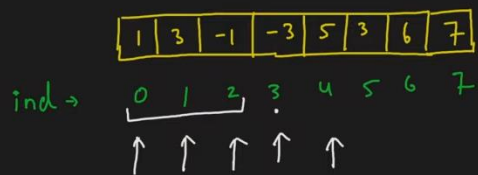


~~0~~ ~~1~~ 2 ~~3~~

deque.  
→ (DLL)

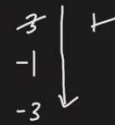
3 3

TUF



k = 3

hqe.



~~0~~ ~~1~~ ~~2~~ ~~3~~

deque.  
→ (DLL)

3 3

TUF

ind → 

1	3	-1	-3	5	3	6	7
---	---	----	----	---	---	---	---

0	1	2	3	4	5	6	7
↑	↑	↑	↑	↑			

k = 3

hge.

5 3 | 1  
+  
-3

<del>0</del>	<del>1</del>	<del>2</del>	<del>3</del>	4
--------------	--------------	--------------	--------------	---

deque.  
→ (DLL)

3 3

TUF

ind → 

1	3	-1	-3	5	3	6	7
---	---	----	----	---	---	---	---

0	1	2	3	4	5	6	7
↑	↑	↑	↑	↑			

k = 3

hge.

5 3 | 1  
+  
-3

↪  

<del>0</del>	<del>1</del>	<del>2</del>	<del>3</del>	4
--------------	--------------	--------------	--------------	---

deque.  
→ (DLL)

3 3 5

TUF

ind → 

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

<del>0</del>	<del>1</del>	<del>2</del>	<del>3</del>	4	5
--------------	--------------	--------------	--------------	---	---

deque.  
→ (DLL)

k = 3

hqe.

5	3	+	1
3	+	+	
	-3	↓	

3 3 5

TUF

ind → 

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

<del>0</del>	<del>1</del>	<del>2</del>	<del>3</del>	4	5
--------------	--------------	--------------	--------------	---	---

deque.  
→ (DLL)

k = 3

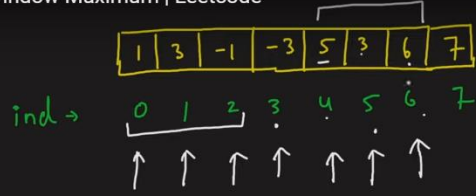
hqe.

5	3	+	1
3	+	+	
	-3	↓	

3 3 5 5

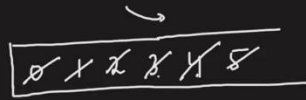
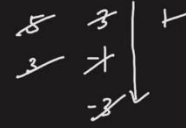
TUF

# Sliding Window Maximum | Leetcode



k = 3

hqe.



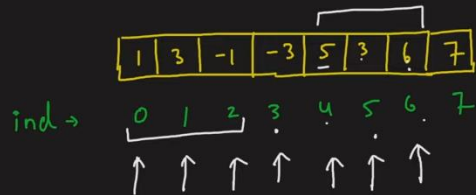
deque.  
→ (DLL)

3 3 5 5

TUF

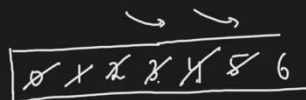
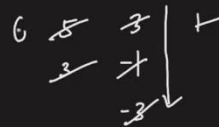
11:03 / 20:15

Scroll for details



k = 3

hqe.

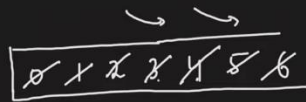
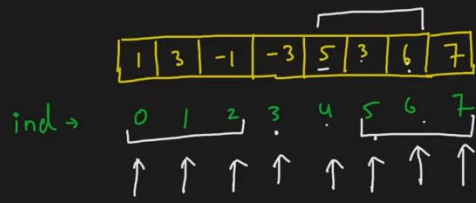


deque.  
→ (DLL)

3 3 5 5 6

TUF

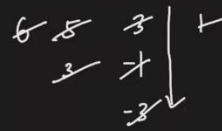




deque.  
→ (DLL)

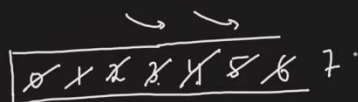
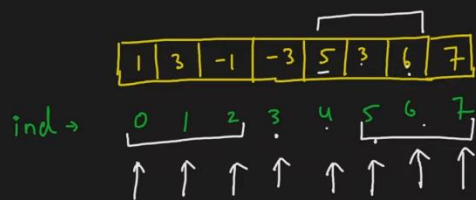
k = 3

hge.



3 3 5 5 6

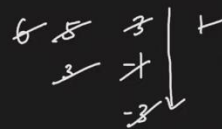
TUF



deque.  
→ (DLL)

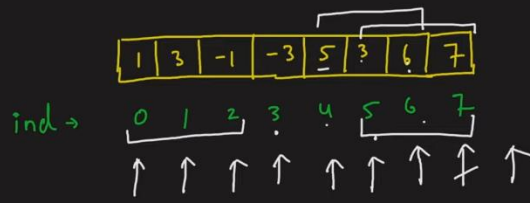
k = 3

hge.



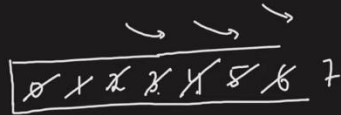
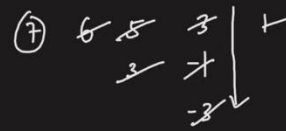
3 3 5 5 6

TUF



k = 3

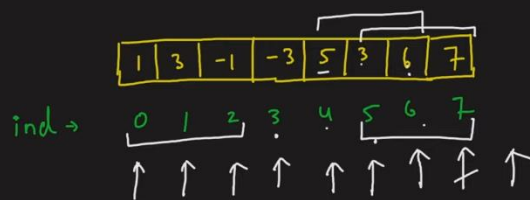
hqe.



deque.  
→ (DLL)

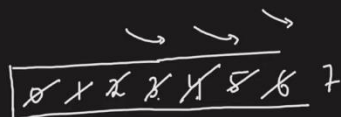
3 3 5 5 6 7

TUF



k = 3

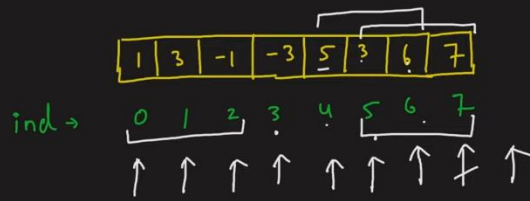
hqe.



deque.  
→ (DLL)

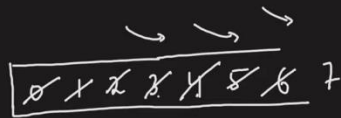


TUF



k = 3

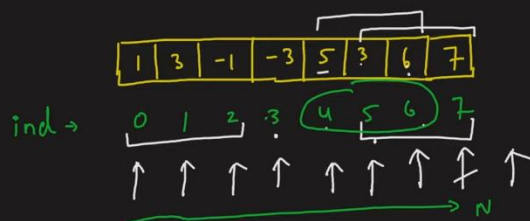
hge.



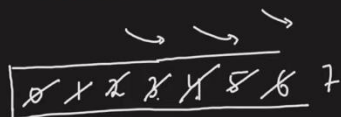
deque.  
→ (DLL)



TUF



k = 3

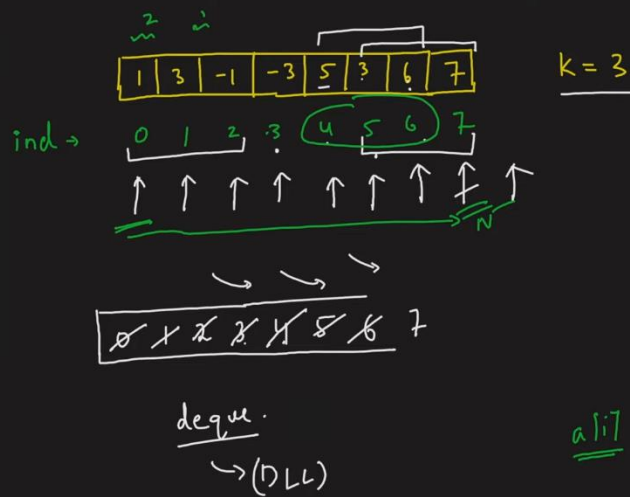


deque.  
→ (DLL)

TC →  $O(N) + O(N) \approx O(N)$

a[i] → out of bound  
→ ≤ a[i]

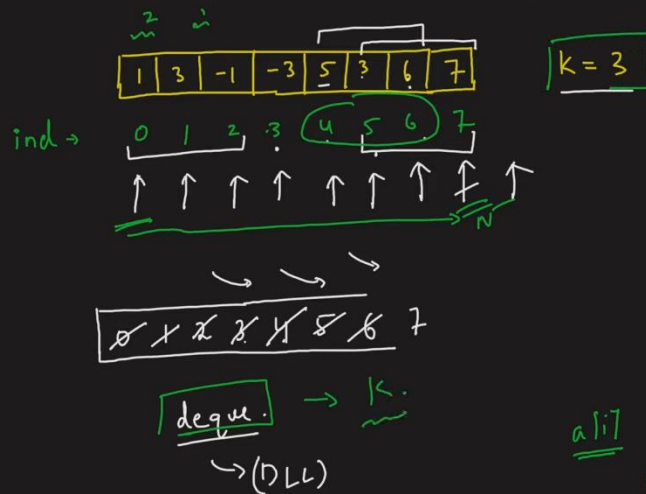
TUF



$$TC \rightarrow \boxed{O(N) + O(N)} \approx O(N)$$

a[i]  $\rightarrow$  out of bound  
 $\rightarrow \leq \underline{a[i]}$

TUF



$$TC \rightarrow \boxed{O(N) + O(N)} \approx O(N)$$

$$SC \rightarrow O(k)$$

a[i]  $\rightarrow$  out of bound  
 $\rightarrow \leq \underline{a[i]}$

TUF

```
i C++ Autocomplete i {} ↺
1 class Solution {
2 public:
3     vector<int> maxSlidingWindow(vector<int>& nums, int k) {
4         deque<int> dq;
5         vector<int> ans;
6         for (int i=0; i<nums.size(); i++) {
7             if (!dq.empty() && dq.front() == i-k) dq.pop_front();
8
9             while (!dq.empty() && nums[dq.back()] < nums[i])
10                 dq.pop_back();
11
12             dq.push_back(i);
13             if (i>=k-1) ans.push_back(nums[dq.front()]);
14         }
15         return ans;
16     }
17 };
```

Your previous code was restored from your local storage. [Reset to default](#)

TUF

```
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1 class Solution {
2 public:
3     vector<int> maxSlidingWindow(vector<int>& nums, int k) {
4         ✓ deque<int> dq;
5         ✓ vector<int> ans;
6         for (int i=0; i<nums.size(); i++) {
7             { if (!dq.empty() && dq.front() == i-k) dq.pop_front(); } → 0 out of bound ?
8
9             while (!dq.empty() && nums[dq.back()] < nums[i])
10                 dq.pop_back();
11
12             dq.push_back(i);
13             if (i>=k-1) ans.push_back(nums[dq.front()]);
14         }
15         return ans;
16     }
17 };
```

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TUF

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6         for (int i=0; i<nums.size(); i++) {
7             if (!dq.empty() && dq.front() == i-k) dq.pop_front(); } → out of bound
8
9             while (!dq.empty() && nums[dq.back()] < nums[i])
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11
12             dq.push_back(i);
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```

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TUF

```
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7             if (!dq.empty() && dq.front() == i-k) dq.pop_front(); } → out of bound
8
9             while (!dq.empty() && nums[dq.back()] <= nums[i]) } → num < a[i]
10                 dq.pop_back();
11
12             dq.push_back(i);
13             if (i>=k-1) ans.push_back(nums[dq.front()]);
14         }
15         return ans;
16     }
17 };

```

Your previous code was restored from your local storage. [Reset to default](#)

TUF