<u>Tanish Mittal</u>
<u>IT–C</u>
<u>2000290130174</u>

Problem 4: Given an array of integers arr, there is a sliding window ofsize k which is moving from the very left of the array to the very right. You can only see the k numbers in the window. Each time the sliding window moves right byone position. Return *the **max sliding window***

from collections import deque

```
def max_sliding_window(arr, k):result = []

    window = deque()


    for i in range(len(arr)):
        if window and window[0] <= i - k:
            window.popleft()


        while window and arr[window[-1]] <= arr[i]:
            window.pop()



        window.append(i) if i



        >= k - 1:
            result.append(arr[window[0]])


    return result
arr = [4, 0, -1, 3, 5, 3, 6, 8]

k = 3
```
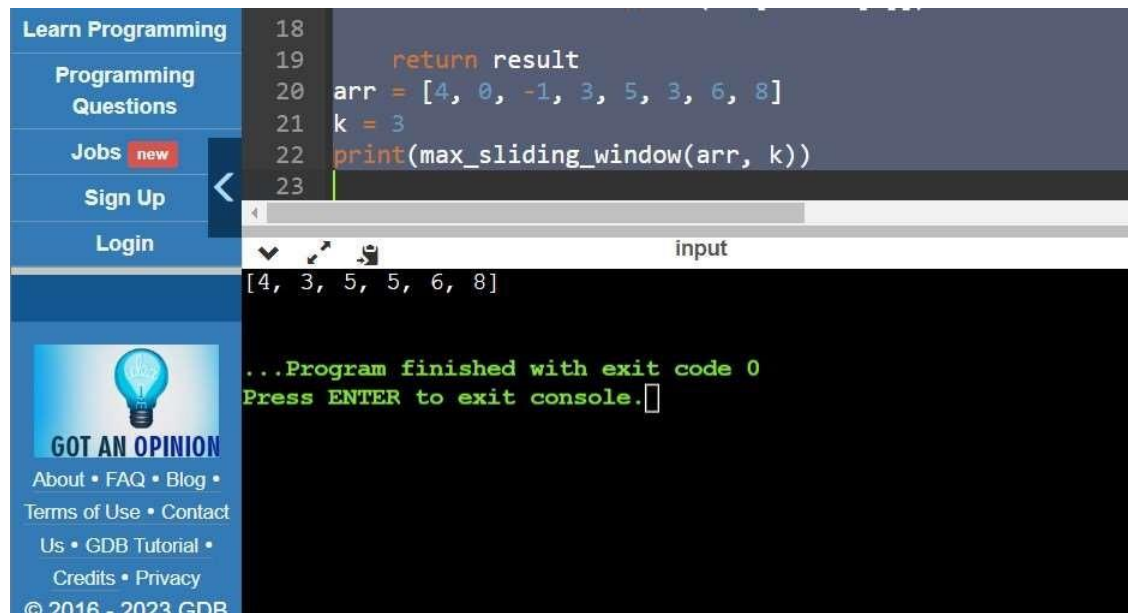
print(max_sliding_window(arr, k))

```
18
19        return result
20   arr = [4, 0, -1, 3, 5, 3, 6, 8]
21   k = 3
22   print(max_sliding_window(arr, k))
23
```

input

```
[4, 3, 5, 5, 6, 8]

...Program finished with exit code 0
Press ENTER to exit console.
```