STUDENT REPORT

DETAILS

Name

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Roll Number

KUB23CSE018

EXPERIMENT

Title

PEAK ELEMENT FINDER

Description

Description: You are given an N- dimensional array arr[]. A peak element in the array is defined as an element whose value is greater than or equal to its neighboring elements (if they exist). Your task is to find the index of any peak element in the given array

Note: use 0-based indexing

Input:

An integer representing the number of elements in the array. N space-separated integers, denoting the elements of the array.

N space-separated integers ,denoting the elements of the array arr[]

Sample Input:

5

1 3 20 4 1

Sample Output:

2

Source Code:

```
def find_peak(arr):
    n = len(arr)

    if n == 0:
        return "NOT FOUND"

    for i in range(n):
        # Check if the current element is a peak
        if (i == 0 or arr[i] >= arr[i - 1]) and (i == n - 1 or arr[i] >= arr[i + 1]):
            return i  # Return the index of the peak element

    return "NOT FOUND"  # In case there is no peak (though there should be one as per problem statement)

# Example usage
n = int(input().strip())
arr = list(map(int, input().strip().split()))

result = find_peak(arr)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %