75 Days of Code
Day 55
Problem no : 162.
Problem Title :Find Peak Element
Problem type : Binary Search

A peak element is an element that is strictly greater than its neighbors.

Given a 0-indexed integer array nums, find a peak element, and return its index. If the array contains multiple peaks, return the index to any of the peaks.

You may imagine that nums[-1] = nums[n] = -∞. In other words, an element is always considered to be strictly greater than a neighbor that is outside the array.

You must write an algorithm that runs in O(log n) time.

Example 1:

Input: nums = [1,2,3,1]
Output: 2
Explanation: 3 is a peak element and your function should return the index number 2.
Example 2:

Input: nums = [1,2,1,3,5,6,4]
Output: 5

Explanation: Your function can return either index number 1 where the peak element is 2, or index number 5 where the peak element is 6.

```
34
35  function findPeakElement(nums: number[]): number {
36
37      let start = 0;
38      let end = nums.length-1;
39      while(start<end){
40        let    mid = Math.floor(start+ (end-start)/2) ;
41          if(nums[mid]>nums[mid+1]){
42                end = mid;
43      }else{
44              start = mid+1
45          }
46      }
47      return end;
48  };
```

Accepted

Runtime	Details	Memory
55 ms		43.51 MB
Beats 60.53% of users with TypeScript		Beats 65.20% of users with TypeScript

Shubham Agrahari

Shubham Agrahari