

CP Problem Statement: 3

A Job Ready Bootcamp in C++, DSA and IOT

MySirG

3. Peak Index in a Mountain Array

Problem Statement:

An array `arr` is a **mountain** if the following properties hold:

- `arr.length >= 3`
- There exists some `i` with `0 < i < arr.length - 1` such that:
 - `arr[0] < arr[1] < ... < arr[i - 1] < arr[i]`
 - `arr[i] > arr[i + 1] > ... > arr[arr.length - 1]`

Given a mountain array `arr`, return the index `i` such that `arr[0] < arr[1] < ... < arr[i - 1] < arr[i] > arr[i + 1] > ... > arr[arr.length - 1]`.

You must solve it in $O(\log(\text{arr.length}))$ time complexity.

Example 1:

```
Input: arr = [0,1,0]
Output: 1
```

Example 2:

```
Input: arr = [0,10,5,2]
Output: 1
```

Facing Issues 😓

If you are facing any issues, please reach out to us at adityachaudhary@ineuron.ai, prateek@ineuron.ai

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