Problem statement Send feedback

You are given an integer array ***'A'*** of size ***'N'***, sorted in non-decreasing order. You are also given an integer ***'target'***.

Your task is to write a function to search for ***'target'*** in the array ***'A'***. If it exists, return its index in 0-based indexing. If ***'target'*** is not present in the array ***'A'***, return -1.

Note:

You must write an algorithm whose time complexity is O(LogN)

Example:

```
Input: ‘N’ = 7 ‘target’ = 3
‘A’ = [1, 3, 7, 9, 11, 12, 45]

Output: 1

Explanation: A = [1, 3, 7, 9, 11, 12, 45],
The index of element '3' is 1.
Hence, the answer is '1'.
```

Detailed explanation (Input/output format, Notes, Images)

Constraints :

```
1 <= N <= 10^5
1 <= A[i] <= 10^9
1 <= target <= 10^9
Time Limit: 1 sec
```

Sample Input 1:

```
7
1 3 7 9 11 12 45
3
```

Sample Output 1:

```
1
```

Explanation of sample output 1:

```
nums = [1, 3, 7, 9, 11, 12, 45],
The index of element '3' is 1.
Hence, the answer is '1'.
```

Sample Input 2:

```
7
1 2 3 4 5 6 7
9
```

Sample Output 2:

```
-1
```

Explanation of sample output 2:

```
nums = [1, 2, 3, 4, 5, 6, 7],
Element '9' doesn't exist.
Hence, the answer is '-1'.
```