

Problem 3: Given a sorted array of N integers, where every element except one appears exactly twice and one element appears only once. Search Single Element in a sorted array.

```
def find_single_element(arr):  
    left, right = 0, len(arr) - 1  
  
    while left < right:  
        mid = left + (right - left) // 2  
  
        if mid % 2 == 1:  
            mid -= 1  
  
        if arr[mid] == arr[mid + 1]:  
            left = mid + 2  
        else:  
            right = mid  
  
    return arr[left]  
  
arr = [1, 1, 2, 3, 3, 4, 4, 8, 8]  
print(find_single_element(arr))
```



```
input  
2  
...Program finished with exit code 0  
Press ENTER to exit console.█
```