PW SKILLS

Sorted array

0	1	2	3	4	5	6
2	4	7	7	9	9	9

target = 7

Output = 2

target = 9

Output = 4

Lower Bound / first occurence in an array

Approach → Binary Search = O(log n)

time complexity

space complexity O(1)

low = 0, high = 6

target = 7

mid = (0+6)/2 = 3

while (low <= high){

if (arr[mid] == target)

result = ~~mid~~ 2;

high = mid - 1;

Left side of an array

low = 0, high = 2

mid = (0+2)/2 = 1

4 < 7

↳ Right side

else if (arr[mid] > target)

high = mid - 1;

else

low = mid + 1;

↳ right side of an array

mid = 2

low = 2, high = ~~2~~ 1

return result;

}

result = 2