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1. a sorted array of the integers containing few duplicate  
nts, find whether key is present or not.

ithm

binary search to get index of the 1<sup>st</sup> occurrence of key  
ment in arr[].

index of 1<sup>st</sup> occurrence =  $i$

binary search to get index of last occurrence of key element.

index of last occurrence =  $j$

return  $(j - i + 1)$

2

Given a sorted array of +ve integers, design an algo to find indices  $i, j, k$  such that  $arr[i] + arr[j] = arr[k]$ .

Algo

is an sorted array.

for a for loop ( $i=0; i < n; i++$ )

$= 1$  and for every  $j > i$

then increment  $k$  until  $A[k] \geq A[i] + A[j]$

& increment count if equality achieved.

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