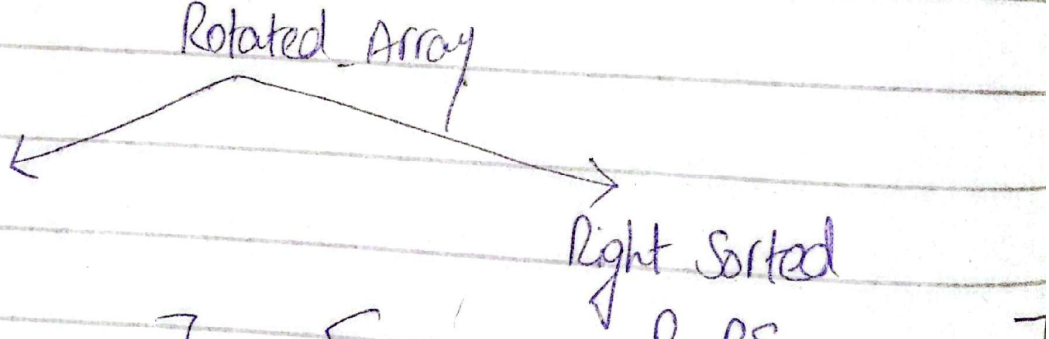
Search in Rotated Sorted Array

Suppose an array {0,1,2,3,4,5,6,7}
Rotated Sorted form would be like
{6,7,0,1,2,3,4,5}

① mid = (st + (end - start/2))

if A[mid] = target
return mid

else we have to find out which part is the sorted one :-



A[st] <= tar <= A[mid]
Left(st, mid-1)
else
Right(mid+1, end)

A[mid] <= tar <= A[end] → Right
else → left

Pseudocode

[3,4,5,6,7,0,1,2] tar = 0

while(st <= end){

mid = st + (end - st)/2

if (A[mid] = start) → mid

if (A[st] <= A[mid] — left sorted

if (A[st] <= tar <= A[mid]

→ left is sorted and we will

end = mid - 1

else Right → st = mid + 1

else Right sorted

if (A[mid] <= tar <= A[end])

Right is sorted

st = mid + 1

else left → end = mid - 1