**SOLUTION**

class Solution {

public:

int search(vector<int>& nums, int target) {

int start=0;

int end=nums.size()-1;

while(end>=start){

int mid=start+(end-start)/2;

if(nums[mid]==target)

return mid;

else if(nums[start]<=nums[mid]){

if(target>=nums[start] && target<=nums[mid]){

end=mid-1;

}

else{

start=mid+1;

}

}

else{

if(target>=nums[mid] && target<=nums[end]){

start=mid+1;

}

else

{

end=mid-1;

}

}

}

return -1;

}

};

**TIME COMPLEXITY: O(log N)**

**SPACE COMPLEXITY: O(1)**