LINEAR SEARCH

AIM:
To find a given target number using linear search from the list of numbers.

ALGORITHM:
Step 1: Initialize the integer variables
Step 2: Get the target number from user
Step 3: Get the list of numbers to be searched
Step 4: If the counter is equal to target the print the location
Step 5: If it is not equal to then print that the location is not found

INPUT:
Enter the number to be found: 25
Enter the number of elements in the list: 5
Enter the elements: 12 22 37 25 61

OUTPUT:
The number is found in location: 4

RESULT:
The target number is found using linear search successfully

BINARY SEARCH

AIM:
To find a given target number using Binary Search from the list of number.
ALGORITHM:
Step 1: Initialize the integer variables
Step 2: Get the values from the list
Step 3: Sorted List of numbers is got as input.
Step 4: Get the target number from the user.
Step 5: Initialize first value as zero and last as n-1;
Step 6: The mid value is found.
Step 7: If the target is greater than mid then first is mid + 1 if not last is mid -1.
Step 8: First is last +1
Step 9: The target is found, if its equal to a(mid) otherwise target is not found.

INPUT:
Enter the number of elements in the list: 5
Enter the sorted list: 11 22 33 44 55
Enter the target: 33

OUTPUT:
The target is found in location: 3

RESULT:
The target number is found using Binary Search successfully