Use divide and conquer method to recursively implement and to find the maximum and minimum in a given list of n elements.

// Recursive C++ program

// to search x in array

#include<bits/stdc++.h>

using namespace std;

// The recursive function to

// search x in arr[l..r]

int linearSearch(int arr[], int l,

              int r, int x)

{

    if (r < l)

        return -1;

    if (arr[l] == x)

        return l;

    if (arr[r] == x)

        return r;

    return linearSearch(arr, l + 1,

                          r - 1, x);

}

// Main Code

int main()

{

    int arr[] = {12, 34, 54, 2, 3}, i;

    int n = sizeof(arr) / sizeof(arr[0]);

    int x = 3;

    int index = linearSearch(arr, 0, n - 1, x);

    if (index != -1)

    cout << "Element " << x

         << " is present at index "

         << index;

    else

        cout << "Element" << x

             << " is not present" ;

    return 0;

}