Green University of Bangladesh
Department of Computer Science and Engineering(CSE)

Faculty of Sciences and Engineering

Semester: (Summer, Year:2022), B.Sc. in CSE (Day)

LAB REPORT NO: 02

Course Title: Data Structure Lab

Course Code: CSE 106 Section: DB

Lab Experiment Name: Implement Linear Search Algorithm

Student Details

	Name ID
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Lab Date : 22/06/2022

Submission Date : 28/06/2022

Course Teacher's Name : Farhana Akter Sunny

[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status

Marks: …… Signature:.....

Comments:..... Date:.....

1. TITLE OF THE LAB EXPERIMENT

Implement Linear Search Algorithm

2. IMPLEMENTATION

Answer to the problem no: 1.1

Problem Statement: Implement a program of binary search with recursion

Code:

```
//Shariful islam emon 213902056

#include <stdio.h>
#include <stdlib.h>
void BinarySearch(int arr[],int num,int first,int last)
 {
   int mid;
   if(first > last) {
      printf("Number is not found");
   } else
   {
      mid = (first + last)/2;
      if(arr[mid]==num) {
         printf("Element found at index %d ",mid);
         exit(0);
      }
      else if(arr[mid] > num) {
         BinarySearch(arr, num, first, mid-1);
      }
      else {
         BinarySearch(arr, num, mid+1, last);
      }
   }
```

```
}
main()
{
   int arr[100],beg,mid,end,i,n,num;
   printf("Enter the size of an array: ");
   scanf("%d",&n);
   printf("Enter the values: \n");
   for(i=0; i<n; i++)
   {
      scanf("%d",&arr[i]);
   }
   beg=0;
   end=n-1;
   printf("Enter a value to search: ");
   scanf("%d",&num);

   BinarySearch(arr,num,beg,end);
}
```

Output: