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: 01

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 : 15/06/2022

Submission Date : 22/06/2022

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: Write a C Program to how to take input using array

Code:

```
//shariful islam emon 213902056
 #include<stdio.h>
int main()
 {
    int n, arr[50];
    int i;
    printf("\t\nEnter array size:");
    scanf("%d",&n);
    printf("\nEnter the values:");
    for(i=0; i<n; i++)
        scanf("%d",&arr[i]);
    for(i=0; i<n; i++)
       printf(" %d",arr[i]);
    return 0;
 }
```

Output:

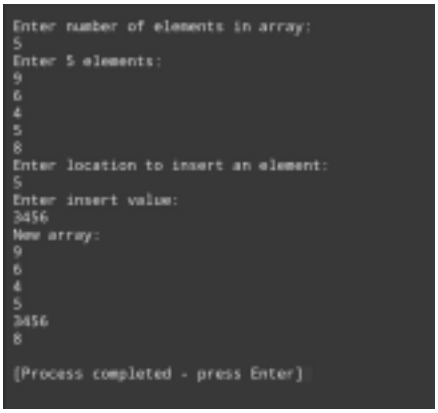
Answer to the problem no: 1.2

Problem Statement: Write a C program to insert an element in array

Code:

```
//shariful islam emon 213902056

#include <stdio.h>

int main()
{
    int array[100], position, c, n, value;

    printf("Enter number of elements in array:\n");
    scanf("%d", &n);

    printf("Enter %d elements:\n", n);

    for (c = 0; c < n; c++)
        scanf("%d", &array[c]);

    printf("Enter location to insert an element:\n");
    scanf("%d", &position);

    printf("Enter insert value:\n");
    scanf("%d", &value);

    for (c = n - 1; c >= position - 1; c--)
        array[c+1] = array[c];

    array[position-1] = value;

    printf("New array:\n");

    for (c = 0; c <= n; c++)
        printf("%d\n", array[c]);

    return 0;
}
```

Output:



Answer to the problem no: 1.3

Problem Statement: Write a C Program to delete an element from array

Code:

```
//shariful islam emon 213902056

#include <stdio.h>

int main()
 {
      int array[100], position, c, n;

      printf("Enter number of elements in array:\n");
      scanf("%d", &n);

      printf("Enter %d elements:\n", n);

      for (c = 0; c < n; c++)
            scanf("%d", &array[c]);

      printf("Enter the number of delete location:\n");
      scanf("%d", &position);

      if (position >= n+1)
            printf("Delete not possible.\n");
      else
           {
               for (c = position - 1; c < n - 1; c++)
                  array[c] = array[c+1];

               printf("New array:\n");

               for (c = 0;c<n-1;c++)
                     printf("%d\n", array[c]);

           }

             return 0;
}
```

Output: