**Laboratory Activity #2**

**Linear Search**

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*Suggested Time:* **60 minutes**

Individual work will be evaluated manually using the following criteria:

- Functionality (30%)

- Accuracy (30%)

- Code Efficiency (30%)

- User Interface (10%)

\*\*\* *for complete details,* *please refer to the provided rubric.*

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**Create a program that the asks the user to enter a student name and search it from the existing records. The program must display the location (*index*) of the student’s name if found, otherwise display a message “Sorry, record is not found!”.**

(*Individual work – unique source code*)

Sample Output:

Enter student name to be searched: Joed

Sorry, record is not found!

The name Joed does not exist…

List of Existing students:

Jewel

Sam

Cha

Cloud

Shine

Enter student name to be searched: Sam

Sam is found at index 1

List of Existing students:

Jewel

Sam

Cha

Cloud

Shine

**Required to Submit:**

***Save*** this document with the following content:

1. source code (text) - “copy-pasted C# code”
2. screenshot of sample output
3. Source Code

using System;

namespace ConsoleApp1

{

class Program

{

static int binarySearch(String[] array, String Student)

{

int l = 0, r = array.Length - 2;

while (l <= r)

{

int m = l + (r - l) / 2;

int res = Student.CompareTo(array[m]);

if (res == 0)

return m;

if (res > 0)

l = m + 1;

else

r = m - 1;

}

return -1;

}

public static void Main(String[] args)

{

String[] array = { "Jewel", "Sam", "Cha", "Cloud", "Shine"};

Console.Write("Enter student name to be searched:");

String Student = Console.ReadLine();

int result = binarySearch(array, Student);

if (result == -1)

{

Console.WriteLine("The name {0} Does Not Exist", Student);

}

else

{

Console.WriteLine("{0} is found at " + "index " + result, Student);

}

Console.WriteLine("List Of Existing Students: ");

foreach (var data in array)

{

Console.WriteLine(data);

}

Console.ReadKey();

}

}

}

1. Screenshot of Sample Output

<Change this with your sample screenshots>



