DHAKA UNIVERSITY OF ENGINEERING & TECHNOLOGY, GAZIPUR

Department of Computer Science and Engineering

Course No.: **CSE-2112**

Course Title: **Object Oriented Programming Language Sessional**

Exercise No: **01**

Experiment Date: **02-03-2021**

Submission Date: **12-03-2021**

Submitted To:

Mr.Md. Omor Farque

Associative Professor, Department of CSE

Antu Shaha

Lecturer, Department of CSE

Submitted By-

Name: **Mehedi Hasan Shuvo**

Student Id.: 194016

Year: 2nd

Semester: 1st

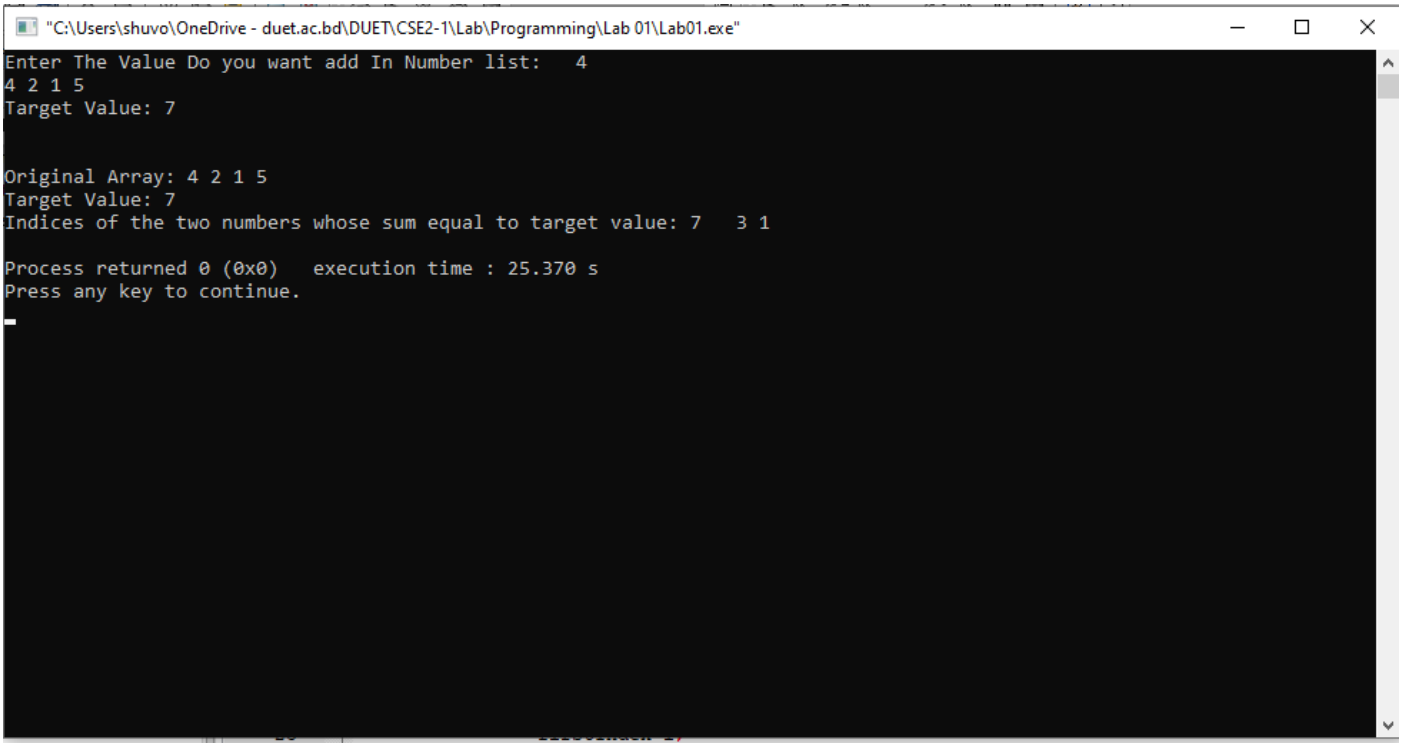
Session: 2019 - 2020

Problem 01: Write a CPP program to get the indices of the two numbers of a given array of integers, such that the sum of the two numbers equal to a specific target.

Solution:

```
#include <iostream>
using namespace std;

int main()
{

   int number[10];
   int targetValue;
   int n;
   int firstIndex=0;
   int lastIndex=0;
   cout<<"Enter The Value Do you want add In Number list:   ";
   cin>>n;
   for(int i=0; i<n; i++) cin>>number[i];
   cout<<"Target Value: ";
   cin>>targetValue;

   for(int i=0; i<n; i++)
   {
      for(int j=0; j<n; j++)
      {
         if((number[i]+number[j])==targetValue)
         {
            firstIndex=i;
            lastIndex=j;
            break;
         }
      }
   }

   cout<<"\n\nOriginal Array: ";
   for(int i=0; i<n; i++) cout<<number[i]<<" ";
   cout<<"\nTarget Value: "<<targetValue<<endl;

   if(firstIndex!=lastIndex)
cout<<"Indices of the two numbers whose sum equal to target value: "<<targetValue<<"   "<<firstIndex<<"
“<<lastIndex<<endl;
   else cout<<"Indices of the two numbers whose not sum equal to target value: "<<targetValue<<endl;

   return 0;
}
```

Output:

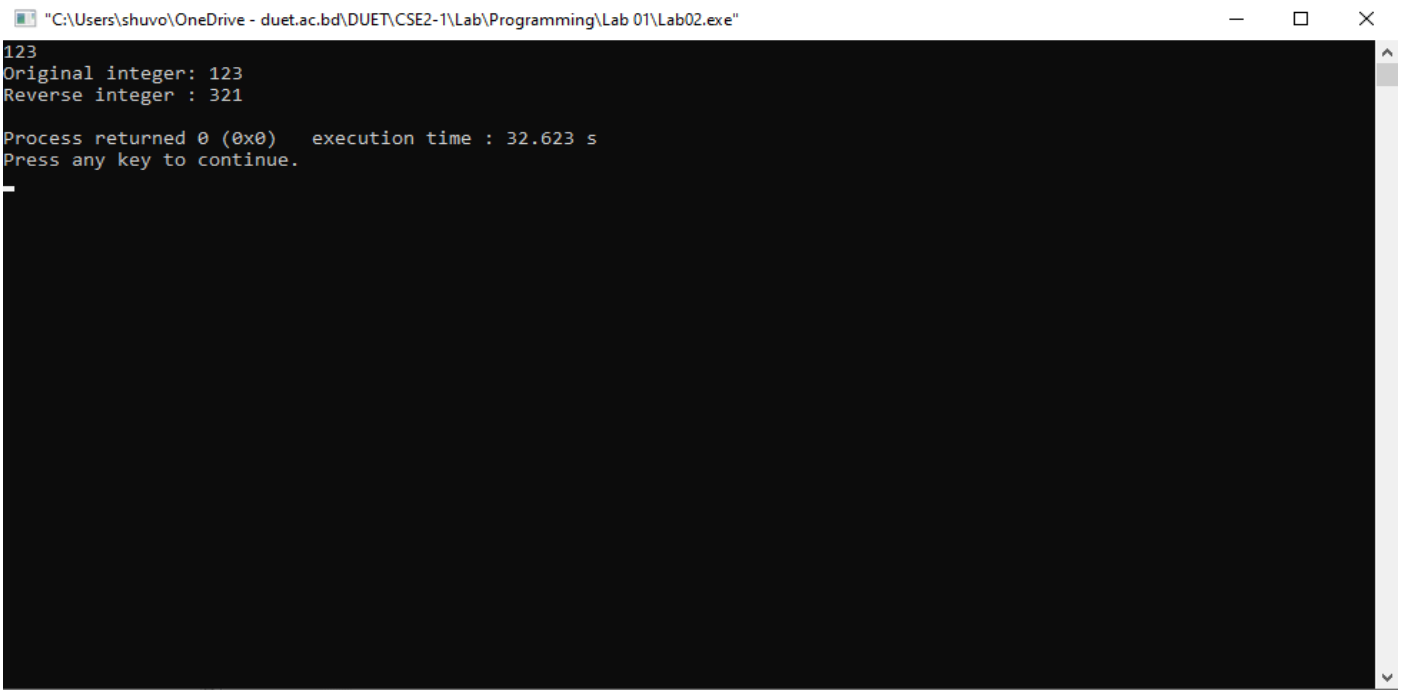

"C:\Users\shuvo\OneDrive - duet.ac.bd\DUET\CSE2-1\Lab\Programming\Lab 01\Lab01.exe"
Enter The Value Do you want add In Number list: 4
4 2 1 5
Target Value: 7
Original Array: 4 2 1 5
Target Value: 7
Indices of the two numbers whose sum equal to target value: 7 3 1
Process returned 0 (0x0) execution time : 25.370 s
Press any key to continue.

Problem 02: Write a CPP program to reverse digits of a given a 32-bit signed integer.

Solution:

```
#include <iostream>
using namespace std;

int main(){

   int number;
   int orginalNumber=0;
   int reverseNumber=0;
   int modulas;
   cin>>number;
   orginalNumber=number;
   while(number !=0){
      modulas=number%10;
      reverseNumber=reverseNumber*10+modulas;
      number=number/10;
   }
   cout<<"Original integer: "<<orginalNumber<<endl;
   cout<<"Reverse integer : "<<reverseNumber<<endl;
   return 0;
}
```

Output:

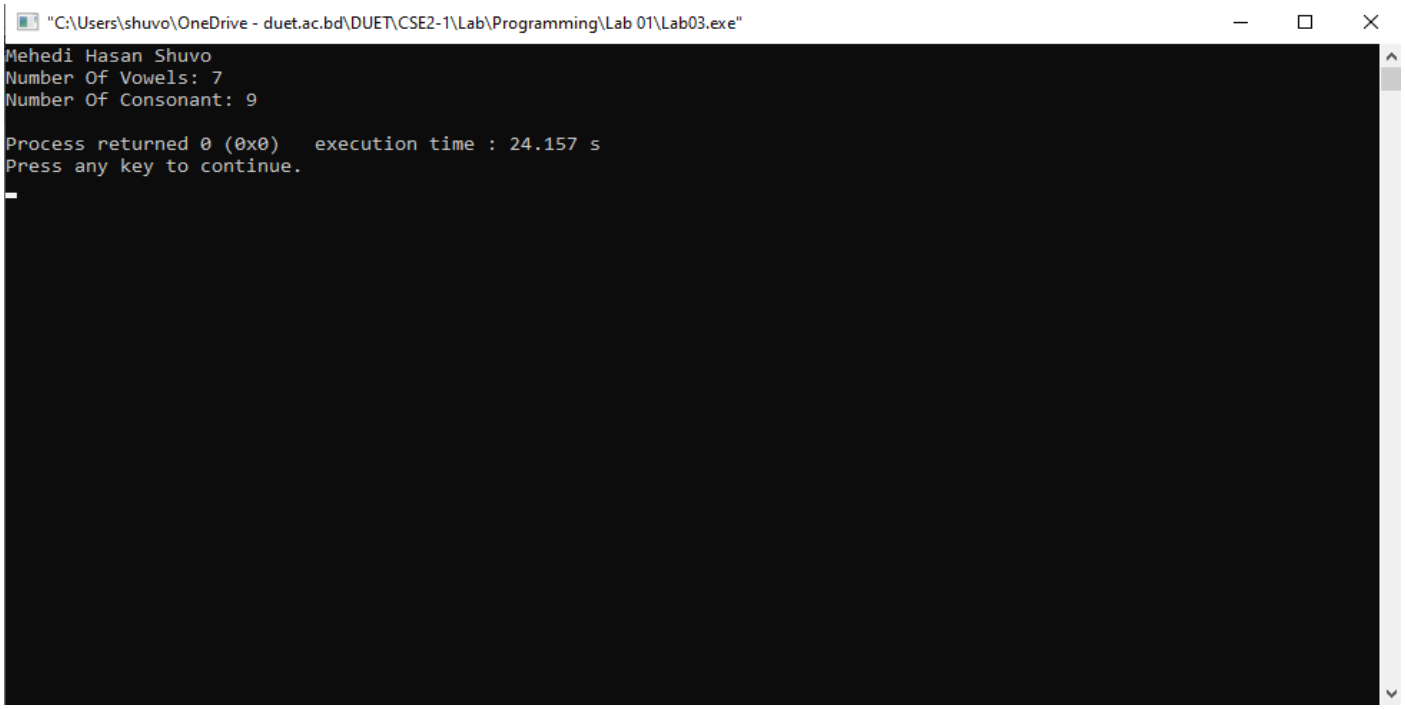


Problem 03: Write a CPP Program to Count the Number of Vowels, Consonants in a string.

Solution:

```
#include<iostream>
using namespace std;
int main()
{
   string inputText;
   int inputTextLength;int vowel=0;
   int consonent=0;
   int value=0;
   getline (cin, inputText);
   inputTextLength=inputText.size();
   for(int i=0; i<inputTextLength; i++)
   {
      value=inputText[i];
      if(value==65 || value==69|| value==73|| value==79|| value==85|| value==97|| value==101|| value==105|| value==111|| value==117) vowel++;
      else if((value>=66 && value<=90 && value !=69&& value !=73&& value !=79&& value !=85) || (value>=98 && value<=122 && value !=101&& value !=105&& value !=111&& value !=117)) consonent++;

   }

   cout<<"Number Of Vowels: "<<vowel<<endl;
   cout<<"Number Of Consonant: "<<consonent<<endl;

   return 0;
}
```

Output:



Thanks