Lab Task 4 [Linear Search]

Task:

```
Write a program that asks the user to enter search key and search any element in
array using Linear Searching Method.
```

Code:

```cpp
        // Code By Muhammad Bilal Khan

#include<iostream>
using namespace std;

int LinearSearch(int arr[],int size,int key)
{
    for(int i=0;i<=size;i++)
    {
        if(arr[i] == key)
        {
            return i;
        }

    }
    return -1;
}

int main()
{

int Numbers[20] = {0,1,2,3,4,5,6,7,8,9,12,47,51,20,58,96,45,21,36,50};

int Search;

cout<<"Enter Number For Searching: ";
cin>>Search;

int Result = LinearSearch(Numbers,20,Search);

if(Result > -1)
{
    cout<<"Value Found"<<endl;
}
else
{
    cout<<"Value Not Found!"<<endl;
}

return 0;
}
```
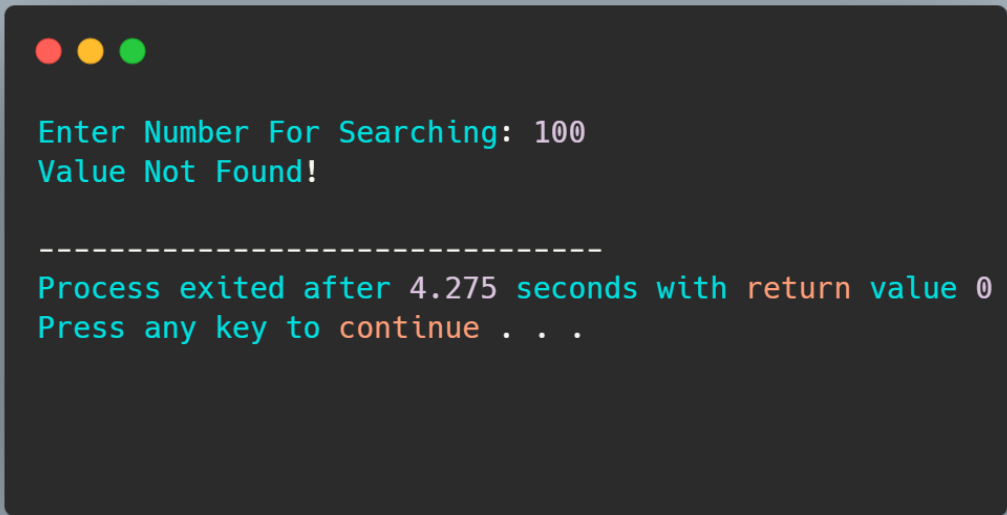
Table Of Output:

Output	Condition
Value Found	Input number exists in array
Value Not Found!	Input number does not exist
Total possible outputs	**2**

When Value Found:

```
Enter Number For Searching: 20
Value Found
```

When Value Not Found:

```
Enter Number For Searching: 100
Value Not Found!

----------------------------------
Process exited after 4.275 seconds with return value 0
Press any key to continue . . .
```

Click here to Get this code on GitHub

Click here to Test this Code by Yourself.