Date:

LAB NO: 7

STRINGS

Objectives:
In this lab, student will be able to:

1. Declare, initialize, read and write a string
2. Write C++ programs with and without string handling functions to manipulate the given string

Introduction

- A string is an array of characters.
- Any group of characters (except double quote sign) defined between double quotations isa constant string.
- Character strings are often used to build meaningful and readable programs.

The common operations performed on strings are

- Reading and writing strings
- Combining strings together
- Copying one string to another
- Comparing strings to another
- Extracting a portion of a string etc.

Declaration

Syntax: ***char string_name[size];***

- The size determines the number of characters in the string_name.

Solved exercise

Code snippet to read a string

```
void  main()
{
        constint MAX = 80; //max characters in string
        charstr[MAX];              //string variable str
        cout<< "Enter a string: ";
        cin>>str;                                  //put string in str
        cout<< "You entered: " <<str<<endl; //display string from str
}
```

Lab exercises

With the brief introduction and knowledge on string handling functions,

Write C++ programs without using STRING-HANDLING functions for the following:

1. Count the number of words in a sentence.

2. Input a string and toggle the case of every character in the input string.

   Ex: INPUT: aBcDe

   OUTPUT: AbCdE

3. Check whether the given string is a palindrome or not.

4. Arrange 'n' names in alphabetical order (hint: use string handling function-***strcpy***)

Additional exercises

1. Delete a word from the given sentence.

   Ex: INPUT: I AM STUDYING IN MIT

   TO BE DELETED: STUDYING

   OUTPUT: I AM IN MIT

2. Search for a given substring in the main string.

3. Delete all repeated words in the given String.

4. Read a string representing a password character by character and mask every character in the input with '*'.