



# LAB REPORT

## CSE332: Compiler Design Lab

01

Topic: Solving String Problem Using C.

Submitted To

**Shadman Rabby (SHR)**

Lecturer

Department of CSE,  
Daffodil International University

Submitted By

Student ID: **221-15-5400**

Section: **61\_A2**

Student Name: M. B. Mahir Tanzim

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Experiment No: 01	Mapping: CO1 and CO2
Experiment Name	Solving String Problem Using C

### **Experiment Details:**

**Problem 01:** Write a program that will **count the length** of a string.

#### **Solution:**

```
#include <stdio.h>
#include <string.h>
int main() {
    char s[100];
    printf("Enter a string: ");
    gets(s);

    int cnt = 0;
    for(int i = 0; s[i] != '\0'; i++)
        cnt++;
    printf("Length of the string: %d", cnt);
    return 0;
}
```

**Problem 02:** Write a C program that will **count the number of white spaces** from a string.

#### **Solution:**

```
#include <stdio.h>
#include <string.h>
int main() {
    char s[100];
    printf("Enter a String:");
    gets(s);
    int cnt = 0;
    for(int i = 0; s[i] != '\0'; i++)
        if(s[i] == ' ')
            cnt++;
    printf("No. of white space in the string: %d", cnt);
    return 0;
}
```

**Problem 03:** C program that will **remove white space** from a string.

**Solution:**

```
#include <stdio.h>
#include <string.h>
int main(){
    char s[100], ss[100];
    printf('Enter a String: ')
    gets(s);
    int i = 0, j = 0;
    while(s[i] != '\0'){
        if(s[i] != ' '){
            ss[j] = s[i];
            j++;
        }
        i++;
    }
    printf("After removing the white spaces:\n%s", ss);
    return 0;
}
```

## Obtained Output:

<p>Problem 01:</p>	Desired Output?
<p>Problem 02:</p>	YES
<p>Problem 03:</p>	

## Alternative Steps/Solution (If any):

We can use built-in **strlen()** function to calculate length of the string in Problem 01.

## Observation/ Comments:

The experiment successfully manipulates string length and whitespace. The results matched the expected outputs, confirming the correctness of the implementations. This experiment also highlights the importance of understanding string manipulation in C such as character iteration, null character '**\0**' and handling gets() input correctly.

