LAB REPORT

CSE312: Database Management System Lab

01

Topic: Solving String Problem Using C.

Submitted To

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Date of Assignment Distribution : 31 January 2025

Date of Assignment Submission: 5 February 2025

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:
```c
#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:
```c
#include <stdio.h>
#include <string.h>
int main(){
    char s[100];
    printf("Enter a Stirng:");
    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;
}
```
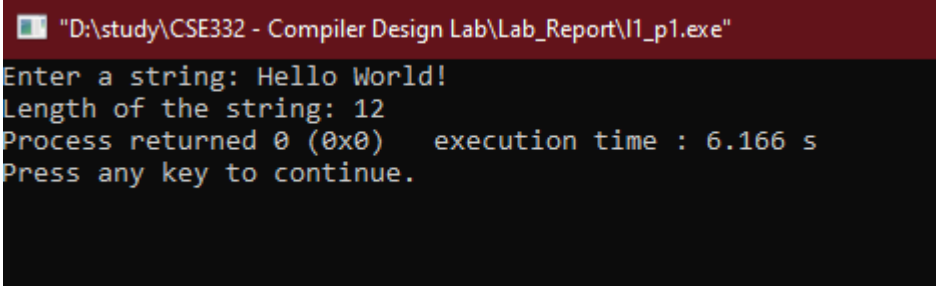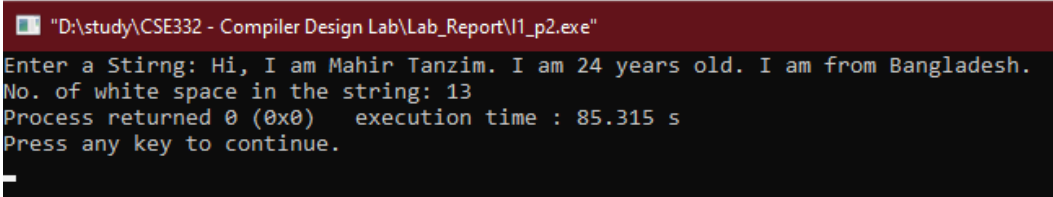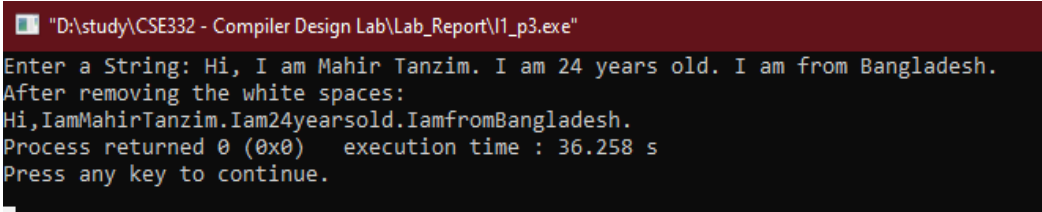
Problem 03: C program that will **remove white space** from a string.

Solution:

```c
#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:

Problem 01:	Desired Output?
▥ "D:\study\CSE332 - Compiler Design Lab\Lab_Report\l1_p1.exe" Enter a string: Hello World! Length of the string: 12 Process returned 0 (0x0) execution time : 6.166 s Press any key to continue.	
Problem 02: ▥ "D:\study\CSE332 - Compiler Design Lab\Lab_Report\l1_p2.exe" Enter a Stirng: Hi, I am Mahir Tanzim. I am 24 years old. I am from Bangladesh. No. of white space in the string: 13 Process returned 0 (0x0) execution time : 85.315 s Press any key to continue.	YES
Problem 03: ▥ "D:\study\CSE332 - Compiler Design Lab\Lab_Report\l1_p3.exe" Enter a String: Hi, I am Mahir Tanzim. I am 24 years old. I am from Bangladesh. After removing the white spaces: Hi,IamMahirTanzim.Iam24yearsold.IamfromBangladesh. Process returned 0 (0x0) execution time : 36.258 s Press any key to continue.	

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.