

Assignment 09

```
#include <stdio.h>
#include <string.h>
void showMenu();

void main()
{
    char str1[50], str2[50];
    int ch = 50;
    printf("{||--- String functions ---||}\n");

    while (ch)
    {
        showMenu();
        printf("\nEnter your choice:");
        scanf("%d", &ch);
        char chr;
        char *x;
        int n;
        // Switching On Different choices
        switch (ch)
        {
            case 0:
                break;
                // length
            case 1:
                printf("\nEnter A String:");
                fflush(stdin);
                scanf("%s", str1);
                printf("\n%d: is length of your String.", strlen(str1));
                break;
                // Copy
            case 2:
                printf("\nEnter String 1:");
                fflush(stdin);
                scanf("%s", str1);
                printf("\n%s: Copied in str2", strcpy(str2, str1));
                break;
                // concat
            case 3:
                printf("\nTo concat two strings:");
                printf("\nEnter String 1:");
                fflush(stdin);
                scanf("%s", str1);
                printf("\nEnter String 2:");
                fflush(stdin);
                scanf("%s", str2);
                printf("\n%s: is Concated string.", strcat(str1, str2));
                break;
                // compare
            case 4:
```

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printf("\nTo compare two strings:");
printf("\nEnter String 1:");
fflush(stdin);
scanf("%s", str1);
printf("\nEnter String 2:");
fflush(stdin);
scanf("%s", str2);
if (strcmp(str1, str2))
{
    printf("\nStrings are not Equal.");
}
else
{
    printf("\nStrings are Equal.");
}

break;
// Chr search
case 5:
    printf("\nEnter A String:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter A Character you want to search in array:");
    char chr = getch();
    x = strchr(str1, chr);
    if (x != "NULL")
    {
        printf("\nCharacter %c Found at index %d ", chr, x - str1);
    }
    else
    {
        printf("\n Character not found in string.");
    }

    break;
// Last occur of char in string
case 6:
    printf("\nEnter A String:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter A Character you want to search in array Last occurrence:");
    chr = getch();
    x = strrchr(str1, chr);
    if (x != "NULL")
    {
        printf("\nCharacter %c Found at index %d ", chr, x - str1);
    }
    else
    {
        printf("\nCharacter not found in string.");
    }
    break;
// search substring

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case 7:
    printf("\nEnter A String:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter A SubString you want to search in array:");
    scanf("%s", str2);

    x = strstr(str1, str2);
    if (x != "NULL")
    {
        printf("\nSubstring : %s Found at index :%d ", str2, x - str1);
    }
    else
    {
        printf("\nSubstring not found in string.");
    }
    break;
    // Reverse
case 8:
    printf("\nEnter a string :");
    scanf("%s", &str1);
    printf("\n%s : is reverse.", strrev(str1));
    break;
    // Duplicate
case 9:
    printf("\nEnter a string :");
    scanf("%s", &str1);
    printf("\n%s : is Duplicate string.", strdup(str1));
    printf("\n%u : is Address of Duplicate string.", strdup(str1));
    printf("\n%u : is Address of Original string.", (str1));
    break;
    // NCpy
case 10:
    printf("\nEnter String 1:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter how many chars do you want to copy: ");
    scanf("%d", &n);
    printf("\n%s: Copied in str2", strncpy(str2, str1, n));
    break;
case 11:
    printf("\nEnter String 1:");
    fflush(stdin);
    scanf("%s", str1);
    for (int i = 0; str1[i] != '\0'; i++)
    {
        str1[i] = tolower(str1[i]);
    }
    printf("%s to Lower Function.", str1);
    break;
case 12:
    printf("\nEnter String 1:");
    fflush(stdin);

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scanf("%s", str1);
for (int i = 0; str1[i] != '\0'; i++)
{
    str1[i] = toupper(str1[i]);
}
printf("%s to Upper Function.", str1);
break;
case 13:
    printf("\nTo compare two strings STRCOLL:");
    printf("\nEnter String 1:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter String 2:");
    fflush(stdin);
    scanf("%s", str2);
    if (strcoll(str1, str2))
    {
        printf("\nStrings are not Equal.");
    }
    else
    {
        printf("\nStrings are Equal.");
    }
    break;
case 14:
    // input string = "abc123xyz"  delim = "abc"
    printf("\nSTRSPN:");
    printf("\nEnter String :");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter Delimiter:");
    fflush(stdin);
    scanf("%s", str2);
    size_t res = strspn(str1, str2);
    // printf("\nStrings are Equal.");
    printf("\nResult: %zu", res);
    break;
case 15:
    // str ="hello123world" delim="1234567890";
    printf("\nString strpbrk:");
    printf("\nEnter String :");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter Delimiter:");
    fflush(stdin);
    scanf("%s", str2);
    char *result = strpbrk(str1, str2);
    if (result)
    {
        printf("First match found: '%c'\n", *result);
    }
    else
    {

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        printf("No match found.\n");
    }

    break;
case 16:
    // string : "Hello,world,this,is,C" tolken : ","
    printf("\nString Tokenization:");
    printf("\nEnter String :");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter Delimeter:");
    fflush(stdin);
    scanf("%s", str2);
    char *token = strtok(str1, str2);
    while (token != NULL)
    {
        printf("Token: %s\n", token);
        token = strtok(NULL, str2);
    }

    break;

case 17:
    printf("\nCompare strings LengthWise ");
    printf("\nEnter String 1:");
    fflush(stdin);
    scanf("%s", str1);
    printf("\nEnter String 2:");
    fflush(stdin);
    scanf("%s", str2);
    if (strcmpi(str1, str2))
    {
        printf("\nStrings are not Equal.");
    }
    else
    {
        printf("\nStrings are Equal.");
    }
    break;

default:
    printf("\nInvalid Choice!!!");
    break;
}
}

void showMenu()
{
    printf("\n\t{||--- MENU ---||}\n");
    printf("\n0) Exit");
    printf("\n1) Calculate Length of string.\t2) Copy into other string.\t3) Concat two
strings.\t4) Compare two strings.\t5) Search character in string.\t6) Search chrs Last
occurance in string.\t7) Search substring in string.\t8) Reverse the string.\t9)

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Duplicate String.\n10) Copy N num of chars from string to another.\t11) Conver into lower
case\t12) Conver into Upper case.\n13) Compare two strings STRCOLL.\t14) STRSPN \t15)
STRPBRK\n16) String Tokenization \t 17) Compare strings LengthWise");
}
```

Output :

```
PS C:\Code> & 'c:\Users\bhagv\.vscode\extensions\ms-vscode.cpptools-1.21.6-win32-
x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-df25upnb.ejm' '--
stdout=Microsoft-MIEngine-Out-q5h0pzix.0fe' '--stderr=Microsoft-MIEngine-Error-iiysjsdy.oql' '--pid=Microsoft-
MIEngine-Pid-1tmg5rni.bdw' '--dbgExe=C:\TDM-GCC-64\bin\gdb.exe' '--interpreter=mi'
```

```
{| |--- String functions ---| |}
```

```
{| |--- MENU ---| |}
```

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:1

Enter A String:Bhagvat

7: is length of your String.

```
{| |--- MENU ---| |}
```

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:2

Enter String 1:Bhagvat

Bhagvat: Copied in str2

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:3

To concat two strings:

Enter String 1:Bhagvat

Enter String 2: Mutthe

BhagvatMutthe: is Concated string.

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:4

To compare two strings:

Enter String 1:Bhagvat

Enter String 2:Bhagvat

Strings are Equal.

{| |--- MENU ---| |}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:5

Enter A String:Bhagvat

Enter A Character you want to search in array:

Character B Found at index 0

{| |--- MENU ---| |}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:6

Enter A String:Bhagvat

Enter A Character you want to search in array Last occurrence:

Character a Found at index 5

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:

7

Enter A String:Bhagvat

Enter A SubString you want to search in array:Bha

Substring : Bha Found at index :0

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:8

Enter a string :Bhagvat

tavgahB : is reverse.

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Convert into lower case 12) Convert into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:9

Enter a string :BnM

BnM : is Duplicate string.

3007911744 : is Address of Duplicate string.

3313498688 : is Address of Original string.

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Convert into lower case 12) Convert into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:10

Enter String 1:Bhagvat

Enter how many chars do you want to copy: 3

Bha: Copied in str2

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

- 4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.
7) Search substring in string. 8) Reverse the string. 9) Duplicate String.
10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.
13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK
16) String Tokenization 17) Compare strings LengthWise

Enter your choice:11

Enter String 1:BHAGVAT

bhagvat to Lower Function.

{||--- MENU ---||}

0) Exit

- 1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.
4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.
7) Search substring in string. 8) Reverse the string. 9) Duplicate String.
10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.
13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK
16) String Tokenization 17) Compare strings LengthWise

Enter your choice:12

Enter String 1:bhagvat

BHAGVAT to Upper Function.

{||--- MENU ---||}

0) Exit

- 1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.
4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.
7) Search substring in string. 8) Reverse the string. 9) Duplicate String.
10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.
13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK
16) String Tokenization 17) Compare strings LengthWise

Enter your choice:13

To compare two strings STRCOLL:

Enter String 1:Bhagvat

Enter String 2:Bhagvat

Strings are Equal.

```
{| |--- MENU ---| |}
```

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:14

STRSPN:

Enter String :abc123xyz

Enter Delimeter:abc

Result: 3

```
{| |--- MENU ---| |}
```

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:15

String strpbrk:

Enter String :hello123world

Enter Delimeter:1234567

First match found: '1'

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:16

String Tokenization:

Enter String :Bhagvat.Mutthe.is

Enter Delimeter:.

Token: Bhagvat

Token: Mutthe

Token: is

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:17

Compare strings LengthWise

Enter String 1:bhagvat

Enter String 2:pansing

Strings are not Equal.

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:17

Compare strings LengthWise

Enter String 1:bhagvat

Enter String 2:bhagvat

Strings are Equal.

{||--- MENU ---||}

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Conver into lower case 12) Conver into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:18

Invalid Choice!!!

```
{| |--- MENU ---| |}
```

0) Exit

1) Calculate Length of string. 2) Copy into other string. 3) Concat two strings.

4) Compare two strings. 5) Search character in string. 6) Search chrs Last occurrence in string.

7) Search substring in string. 8) Reverse the string. 9) Duplicate String.

10) Copy N num of chars from string to another. 11) Convert into lower case 12) Convert into Upper case.

13) Compare two strings STRCOLL. 14) STRSPN 15) STRPBRK

16) String Tokenization 17) Compare strings LengthWise

Enter your choice:0

PS C:\Code>