



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (Po), Coimbatore – 641 107

**An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



**DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE**

**COURSE NAME : 23ITT101- PROBLEM SOLVING & C PROGRAMMING**

**I YEAR /I SEMESTER**

**Unit 3- C-ARRAYS AND STRINGS**

**Topic : String- String Operations-Part II**



# strcmp



strcmp(stringa, stringb)

Compares stringa and stringb alphabetically

Returns a negative value if stringa precedes stringb alphabetically

Returns a positive value if stringb precedes stringa alphabetically

Returns 0 if they are equal

Note lowercase characters are greater than Uppercase



# Example with strcmp



```
#include <stdio.h>
#include <string.h>
main()
{
    char x[] = "cat";
    char y[] = "cat";
    char z[] = "dog";
    if (strcmp(x,y) == 0)
        printf("The string in array x %s is equal to that in %s \n ", x,y);
```



# continued



```
if (strcmp(x,z) != 0)
    {printf("The string in array x %s is not equal to that in z %s \n ",
    x,z);
if (strcmp(x,z) < 0)
    printf("The string in array x %s precedes that in z %s \n ", x,z);
else
    printf("The string in array z %s precedes that in x %s \n ", z,x);
    }
else
    printf( "they are equal");
    }
```



# strlen



strlen(str) returns length of string excluding null character  
strlen("tttt") = 4 not 5 since \0 not counted



# Example with strlen



```
#include <stdio.h>
#include <string.h>
main()
{
    int i, count;
    char x[] = "tommy tucket took a tiny ticket ";
    count = 0;
    for (i = 0; i < strlen(x);i++)
    {
        if (x[i] == 't') count++;
    }
    printf("The number of t's in %s is %d \n ", x,count);
}
```



# Vowels Example with strlen



```
#include <stdio.h>
#include <string.h>
main()
{
int i, count;
char x[] = "tommy tucket took a tiny ticket ";
count = 0;
for (i = 0; i < strlen(x);i++)
{
if ((x[i] == 'a')||(x[i]=='e')||(x[i]=='I')||(x[i]=='o')||(x[i]=='u')) count++;
}
printf("The number of vowels's in %s is %d \n ", x,count);

}
```



# Thank You