# C LIBRARY - <STRING.H>

 

## Introduction

The **string .h** header defines one variable type, one macro and various functions for manipulating arrays of characters.

## Library Variables

Following is the variable type defined in the header string.h:

| S.N. | Variable & Description |
|---|---|
| 1 | **size_t**<br>This is the unsigned integral type and is the result of the **sizeof** keyword. |

## Library Macros

Following is the macro defined in the header string.h:

| S.N. | Macro & Description |
|---|---|
| 1 | **NULL**<br>This macro is the value of a null pointer constant. |

## Library Functions

Following are the functions defined in the header string.h:

| S.N. | Function & Description |
|---|---|
| 1 | void *memchr(const void *str, int c, size_t n)<br>Searches for the first occurrence of the character c (an unsigned char) in the first n bytes of the string pointed to by the argument *str*. |
| 2 | int memcmp(const void *str1, const void *str2, size_t n)<br>Compares the first n bytes of *str1* and *str2*. |
| 3 | void *memcpy(void *dest, const void *src, size_t n)<br>Copies n characters from src to *dest*. |
| 4 | void *memmove(void *dest, const void *src, size_t n)<br>Another function to copy n characters from *str2* to *str1*. |
| 5 | void *memset(void *str, int c, size_t n)<br>Copies the character c (an unsigned char) to the first n characters of the string pointed to by the argument *str*. |
| 6 | char *strcat(char *dest, const char *src)<br>Appends the string pointed to by *src* to the end of the string pointed to by *dest*. |
| 7 | char *strncat(char *dest, const char *src, size_t n)<br>Appends the string pointed to by *src* to the end of the string pointed to by *dest* up to n characters long. |

| | |
|---|---|
| 8 | char *strchr(const char *str, int c)<br>Searches for the first occurrence of the character c (an unsigned char) in the string pointed to by the argument *str*. |
| 9 | int strcmp(const char *str1, const char *str2)<br>Compares the string pointed to by *str1* to the string pointed to by *str2*. |
| 10 | int strncmp(const char *str1, const char *str2, size_t n)<br>Compares at most the first n bytes of *str1* and *str2*. |
| 11 | int strcoll(const char *str1, const char *str2)<br>Compares string *str1* to *str2*. The result is dependent on the LC_COLLATE setting of the location. |
| 12 | char *strcpy(char *dest, const char *src)<br>Copies the string pointed to by *src* to *dest*. |
| 13 | char *strncpy(char *dest, const char *src, size_t n)<br>Copies up to n characters from the string pointed to by *src* to *dest*. |
| 14 | size_t strcspn(const char *str1, const char *str2)<br>Calculates the length of the initial segment of str1 which consists entirely of characters not in str2. |
| 15 | char *strerror(int errnum)<br>Searches an internal array for the error number errnum and returns a pointer to an error message string. |
| 16 | size_t strlen(const char *str)<br>Computes the length of the string str up to but not including the terminating null character. |
| 17 | char *strpbrk(const char *str1, const char *str2)<br>Finds the first character in the string *str1* that matches any character specified in *str2*. |
| 18 | char *strrchr(const char *str, int c)<br>Searches for the last occurrence of the character c (an unsigned char) in the string pointed to by the argument *str*. |
| 19 | size_t strspn(const char *str1, const char *str2)<br>calculates the length of the initial segment of *str1* which consists entirely of characters in *str2*. |
| 20 | char *strstr(const char *haystack, const char *needle)<br>Finds the first occurrence of the entire string *needle* (not including the terminating null character) which appears in the string *haystack*. |
| 21 | char *strtok(char *str, const char *delim)<br>Breaks string *str* into a series of tokens separated by *delim*. |
| 22 | size_t strxfrm(char *dest, const char *src, size_t n)<br>Transforms the first **n** characters of the string **src** into corrent locale and place them in the string **dest**. |