

# C Library - strchr() function

The **C** Library **strchr()** function refer to first occurrence of a character from a given string. This function operate the task of null characters(\0) or null-ended string. This function is useful in a variety of text processing tasks where user need to locate a particular character.

## Syntax

Following is the syntax of the C library **strchr()** function –

```
char *strchr(const char *str, int search_str)
```

## Parameters

This function accepts the following parameters–

- **str** – This parameter represent a given string.
- **search\_str** – This parameter refers to specific character to be searched in a given string.

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## Return Value

This function returns a pointer to the first occurrence of the character i.e. "search\_str" in the string(**str**), or NULL if the character is not found.

## Example 1

Following is the basic C library program that illustrate the character search in a given string using the **strchr()** function.

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```
#include <stdio.h>
#include <string.h>
int main ()
{
```

```

const char str[] = "Tutorialspoint";
// "ch" is search string
const char ch = '.';
char *ret;
ret = strchr(str, ch);
printf("String after |%c| is - |%s|\n", ch, ret);
return(0);
}

```

## Output

On execution of above code, we get the result value as null because the character '.' was not found in the string.

```
String after |.| is - |(null)|
```

## Example 2

Here, we have a specific character to determine the extraction of substring from a given string.

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```

#include <stdio.h>
#include <string.h>
int main()
{
    const char *str = "Welcome to Tutorialspoint";
    char ch = 'u';
    // Find the first occurrence of 'u' in the string
    char *p = strchr(str, ch);

    if (p != NULL)
    {
        printf("String starting from '%c' is: %s\n", ch, p);
    }
    else
    {
        printf("Character '%c' not found in the string.\n", ch);
    }
}

```

```
return 0;
}
```

## Output

The above code produces the following result–

String starting from 'u' is: utorialspoint

## Example 3

In this example, we will find the position of character from a given string.

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```
#include <stdio.h>
#include <string.h>

int main()
{
    char str[] = "This is simple string";
    char* sh;

    printf("Searching for the character in 's' in the given string i.e. \"%s\"\n",
        sh = strchr(str, 's'));

    while (sh != NULL)
    {
        printf("Found at position- %d\n", sh - str + 1);
        sh = strchr(sh + 1, 's');
    }
    return 0;
}
```



## Output

On execution of above code, we observed that the character 'S' appears 4th times in different positions of the given string.

Searching for the character in 's' in the given string i.e. "This is simple string"

Found at position- 4

Found at position- 7

Found at position- 9

Found at position- 16

