

# String handling

## \*string handling functions

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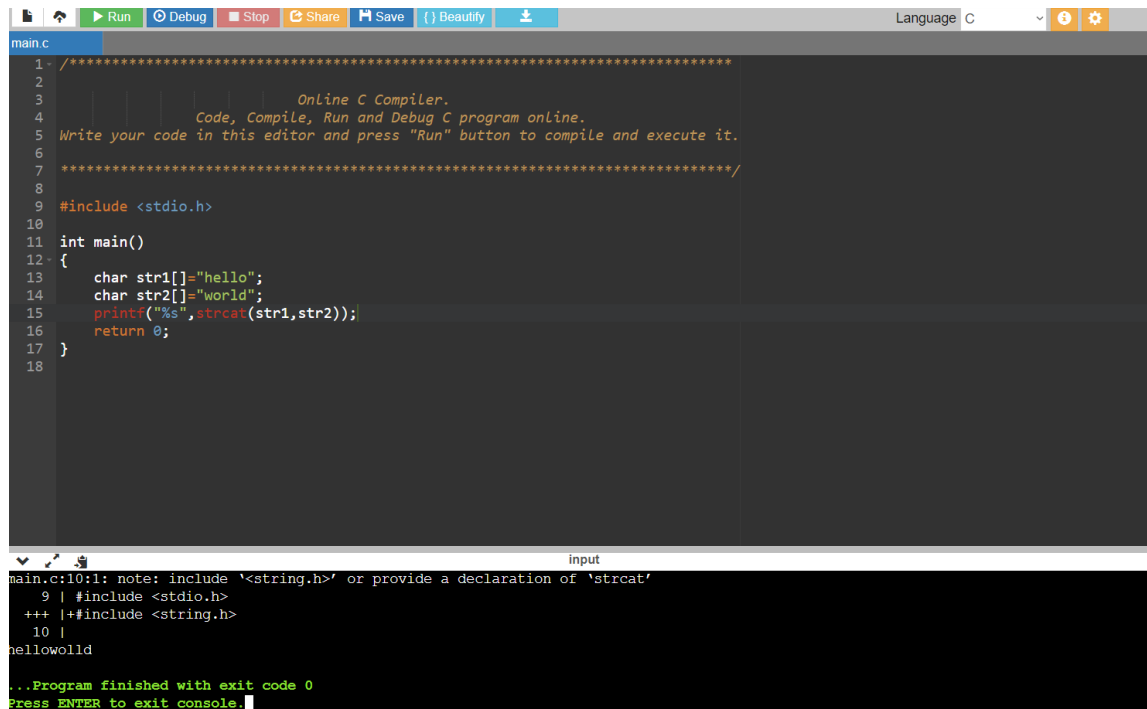
C language supports a large number of string handling functions that can be used to carry out many of the string manipulations. These functions are packed in string.h library.

You must include string.h library

These are the most commonly used string handling functions:

## Strcat()

It is used to concatenate two strings



```
main.c
1  /* *****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6      *****
7
8  #include <stdio.h>
9
10
11 int main()
12 {
13     char str1[]="hello";
14     char str2[]="world";
15     printf("%s",strcat(str1,str2));
16     return 0;
17 }
18
```

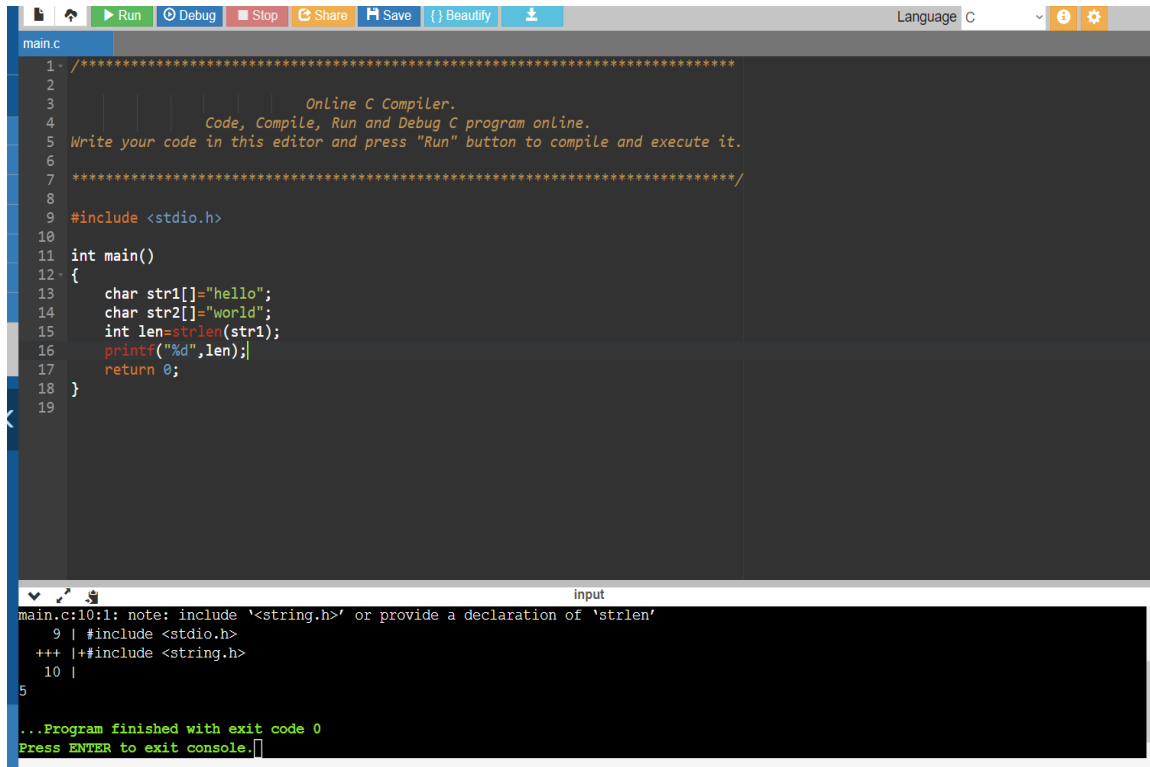
input

```
main.c:10:1: note: include '<string.h>' or provide a declaration of 'strcat'
9 | #include <stdio.h>
++ |+#include <string.h>
10 |
helloworld

...Program finished with exit code 0
Press ENTER to exit console.
```

## Strlen()

This string handling function is used to  
Show the length of the string.



```
main.c
1- /******
2-
3-           Online C Compiler.
4-           Code, Compile, Run and Debug C program online.
5- Write your code in this editor and press "Run" button to compile and execute it.
6- *****/
7-
8- #include <stdio.h>
9-
10- int main()
11- {
12-     char str1[]="hello";
13-     char str2[]="world";
14-     int len=strlen(str1);
15-     printf("%d",len);
16-     return 0;
17- }
18-
19-
input
main.c:10:1: note: include '<string.h>' or provide a declaration of 'strlen'
   9 | #include <stdio.h>
  ++ |+#include <string.h>
 10 |
5
...Program finished with exit code 0
Press ENTER to exit console.
```

## Strrev()

It is used to show the reverse of a string.

```
File Edit Search Run Compile Debug Project Options Window Help
NONAME01.CPP
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str[50]="hello world";
    printf("the given string is:%s\n",str);
    printf("after reversing the string is:%s",strrev(str));
    getch();
}
```

Output:

The give string is:hello world

After reversing the string is: dlrow olleh

## Strcpy()

This string functions is used to copy one string into another.

```
main.c
1  /*****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6
7      *****/
8
9  #include <stdio.h>
10 #include <string.h>
11
12 int main()
13 {
14     char str1[100],str2[100];
15     strcpy(str1,"hello world");
16     strcpy(str2,str1);
17     printf("%s",str2);
18     return 0;
19 }
20
```

input

hello world

...Program finished with exit code 0  
Press ENTER to exit console.

## Strcmp()

It is used to compare two strings.

Here if the ascii value of string1 is greater than

The ascii value of string2, the value will be positive

And if the ascii value of string 2 is greater than that of string 1,

The value will be negative

```
main.c
1- /*****
2-
3- Online C Compiler.
4- Code, Compile, Run and Debug C program online.
5- Write your code in this editor and press "Run" button to compile and execute it.
6- *****/
7-
8-
9- #include <stdio.h>
10- #include <string.h>
11-
12- int main()
13- {
14-     char str1[]="hello";
15-     char str2[]="hallo";
16-     int str=strcmp(str1,str2);
17-     printf("%d",str);
18-     return 0;
19- }
20-
input
4
...Program finished with exit code 0
Press ENTER to exit console.
```

## Strlwr()

It is used to convert the input to lower case

```
File Edit Search Run Compile Debug Project Options Window Help
NONAME01.CPP 8-[+]
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str[50]="HELLOs";
    printf("the given string is:%s\n",str);
    printf("lowercase the string is:%s",strlwr(str));
    getch();
}
```

Output: lowercase of the string is: hello

## Strupr()

It is used to convert the input to upper case

```
NONAME01.CPP
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str[50]="hello";
    printf("the uppercase is:%s\n",strupr(str));
    getch();
}
```

Output: the uppercase is: HELLO

## Strcmpi()

Same as strcmp function but this one negotiates the Case A and a are treated the same

```
main.c
1 - /*****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6      *****/
7
8
9 #include <stdio.h>
10 #include <string.h>
11
12 int main( )
13 {
14     char str1[] = "hello" ;
15     char str2[] = "hello" ;
16
17     int j = strcmpi ( str1, str2 ) ;
18
19     printf ( "The function returns = %d",j ) ;
20     return 0;
21 }
```

Output: The function returns = 0

## Strncat()

It is used to concatenate n characters of a second string  
To the first string.

```
main.c
1 /*****
2
3 Online C Compiler.
4 Code, Compile, Run and Debug C program online.
5 Write your code in this editor and press "Run" button to compile and execute it.
6
7 *****/
8
9 #include <stdio.h>
10 #include <string.h>
11
12 int main ()
13 {
14
15     char dest[50] = "hello";
16     char src[50] = " world";
17
18     strcat(dest, src);
19     printf(dest);
20     return 0;
21 }
22
input
main.c:19:12: warning: format not a string literal and no format arguments [-Wformat-security]
19 |     printf(dest);
    |           ^~~~
hello world

...Program finished with exit code 0
Press ENTER to exit console.
```

## Strncmp()

It is used to compare n characters of  
Second string to first string.

```
main.c
1  /*****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6
7  *****/
8
9  #include <stdio.h>
10 #include<string.h>
11 int
12 main ()
13 {
14     char str1[20] = "this is not awesome", str2[20] = "this is okay";
15     if (strncmp (str1, str2, 8) == 0)
16         printf ("The strings str1 and str2 are same up to 8 characters ");
17     return 0;
18 }
19
```

input

The strings str1 and str2 are same up to 8 characters

...Program finished with exit code 0  
Press ENTER to exit console.

## Strncmp()

Copies give number of characters of one string to



```
1- /*****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6
7      *****/
8
9 #include <stdio.h>
10 #include <string.h>
11
12 int main( )
13 {
14     char source[ ] = "helloworld" ;
15     char target[20]= "" ;
16     printf ( "\nsource string = %s", source ) ;
17     printf ( "\ntarget string = %s", target ) ;
18     strncpy ( target, source, 5 ) ;
19     printf ( "\ntarget string after strcpy( ) = %s", target ) ;
20     return 0;
21 }
```

input

```
source string = helloworld
target string =
target string after strcpy( ) = hello

...Program finished with exit code 0
Press ENTER to exit console.
```

## Strstr(str1,str2)

Returns pointer to first occurrence of str2 in str1

```

3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute it.
6
7      *****/
8
9      #include <string.h>
10     #include <stdio.h>
11
12     int main()
13     {
14
15         char s1[] = "nowayhome";
16         char s2[] = "way";
17         char* p;
18
19
20         p = strstr(s1, s2);
21
22
23         if (p) {
24             printf("String found\n");
25             printf("First occurrence of string '%s' in '%s' is '%s'", s2, s1, p);
26         } else
27             printf("String not found\n");
28
29         return 0;
30     }

```

String found  
First occurrence of string 'way' in 'nowayhome' is 'wayhome'

...Program finished with exit code 0  
Press ENTER to exit console.