

C LIBRARY FUNCTION - FREE

http://www.tutorialspoint.com/c_standard_library/c_function_free.htm

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Description

The C library function **void free***void * ptr* deallocates the memory previously allocated by a call to calloc, malloc, or realloc.

Declaration

Following is the declaration for free function.

```
void free(void *ptr)
```

Parameters

- **ptr** -- This is the pointer to a memory block previously allocated with malloc, calloc or realloc to be deallocated. If a null pointer is passed as argument, no action occurs.

Return Value

This function does not return any value.

Example

The following example shows the usage of free function.

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

int main()
{
    char *str;

    /* Initial memory allocation */
    str = (char *) malloc(15);
    strcpy(str, "tutorialspoint");
    printf("String = %s, Address = %u\n", str, str);

    /* Reallocating memory */
    str = (char *) realloc(str, 25);
    strcat(str, ".com");
    printf("String = %s, Address = %u\n", str, str);

    /* Deallocate allocated memory */
    free(str);

    return(0);
}
```

Let us compile and run the above program that will produce the following result:

```
String = tutorialspoint, Address = 355090448
String = tutorialspoint.com, Address = 355090448
Loading [MathJax]/jax/output/HTML-CSS/jax.js
```