

# C LIBRARY FUNCTION - CALLOC

[http://www.tutorialspoint.com/c\\_standard\\_library/c\\_function\\_calloc.htm](http://www.tutorialspoint.com/c_standard_library/c_function_calloc.htm)

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## Description

The C library function **void \*calloc**(size\_t nitems, size\_t size) allocates the requested memory and returns a pointer to it. The difference in **malloc** and **calloc** is that malloc does not set the memory to zero where as calloc sets allocated memory to zero.

## Declaration

Following is the declaration for calloc function.

```
void *calloc(size_t nitems, size_t size)
```

## Parameters

- **nitems** -- This is the number of elements to be allocated.
- **size** -- This is the size of elements.

## Return Value

This function returns a pointer to the allocated memory, or NULL if the request fails.

## Example

The following example shows the usage of calloc function.

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

int main()
{
    int i, n;
    int *a;

    printf("Number of elements to be entered:");
    scanf("%d",&n);

    a = (int*)calloc(n, sizeof(int));
    printf("Enter %d numbers:\n",n);
    for( i=0 ; i < n ; i++ )
    {
        scanf("%d",&a[i]);
    }

    printf("The numbers entered are: ");
    for( i=0 ; i < n ; i++ )
    {
        printf("%d ",a[i]);
    }

    return(0);
}
```

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

```
Number of elements to be entered:3
Enter 3 numbers:
22
55
14
```

The numbers entered are: 22 55 14

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