Research on calloc, malloc and free

Malloc, the abbreviated form of “Memory allocation”, is a method used in C to dynamically allocate an individual block of memory with specified size. It returns a pointer of type void which can be cast into a pointer of any form. It initializes each block with default garbage value.

The syntax for malloc is as follows:

ptr = (cast-type*) malloc(byte-size)

The “calloc” method, which stands for “continuous allocation”, is used to dynamically allocate a certain number of memory blocks of a specific type. Each block is initialized with a default value of zero.

The syntax is:

ptr = (cast-type*)calloc(n, element-size);

Finally, “free” is a used for de-allocating memory, since “malloc” and “calloc” do not de-allocate the memory on their own. It reduces memory waste by freeing it.

The syntax is:

Free(ptr);