

Malloc() and Calloc()

- `malloc`: Allocates memory but does not initialize it. The allocated memory contains garbage values.
- `calloc`: Allocates memory and initializes all bits to zero.
- `malloc`: Takes a single argument, which is the total number of bytes to allocate.
- `calloc`: Takes two arguments: the number of elements and the size of each element.
- `malloc: ptr = (int*) malloc(num * sizeof(int));`
- `calloc: ptr = (int*) calloc(num, sizeof(int));`

Suppose you are creating a dynamic array to store integers, and you want to ensure that all elements are initialized to zero. Using `calloc` would be the better choice since it automatically initializes the allocated memory to zero. If you don't care about the initial values and want slightly better performance, you could use `malloc`.