

→ memory assigned as : ptr

## Dynamic memory allocation -

1. Dynamic memory allocation is a process of allocating memory at runtime.
2. ~~There is~~ to allocate memory dynamically, library functions are malloc(), calloc(), realloc() & free().

① malloc() → memory allocation.

Syntax :- →

ptr = (cast type\*) malloc (size);

② Example :- →

ptr = (float\*) malloc (100 \* sizeof(float));

② calloc() → contiguous allocation

→ It allocates memory & initializes all bits to zero.

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Syntax:-

$ptr = (\text{cast type}^*) \text{calloc}(n, \text{size});$

Example :-

$ptr = (\text{float}^*) \text{calloc}(25, \text{sizeof}(\text{float}))$

- ③  $\text{free}()$  → frees the space allocated in the memory pointed by  $ptr$ .
- ④  $\text{realloc}()$  → Modifies the size of previously allocated space

Syntax:  $\text{void}^* \text{realloc}(\text{void}^* ptr, \text{size\_t} \text{size})$