**calloc()**

The calloc function is used to allocate multiple blocks of memory. This has 2 arguments.

ptr = (int\*) calloc (5,2)

This allocates 5 blocks of memory; each block contains 2 bytes of memory and the starting address is stored in the pointer variable ptr which is of type int.

The calloc () function is generally used for array and structure.

struct record

{

char name[10];

int age;

float sal;

};

int tot\_rec = 100;

ptr = (record\*) calloc (tot\_rec,sizeof(record));

This allocates the memory space for 100 blocks and block contains the memory space that is occupied by the structure variable.

**free()**

For efficient use of memory space we can also release the memory space that is not required. We can use the free function for releasing memory space.

free(ptr);

**realloc()**

There are two possibilities when we want to change the size of the block. In the first case, we want more memory space in comparison to allocated memory space. In second case, the allocated memory space is more than the required memory space. For changing the size of the memory block we can use the function realloc(). This is known as reallocation of memory.

ptr = malloc(specified size);

This statement allocates the memory of the specified size and the base address of this memory block are stored in the pointer variable ptr. If we want to change the size of the memory block, then

ptr = realloc(ptr,newsize);

From this statement we can allocate the memory space of the new size and the base address of this memory block is stored in the pointer variable ptr. The base address may or may not be the same because it is possible that memory block of newsize may or may not be in the same region. This function moves the content of the old block into the new block and the data of the old block is not lost.

/\*program to understand the use of realloc function\*/

#include<stdio.h>

#include<alloc.h>

#include<string.h>

main()

{

char \*ptr;

ptr = (char\*) malloc(6);

ptr = “ankit”;

printf(“%s is in memory block\n”,ptr);

ptr = (char\*) relloc (ptr,8);

printf(“%s is in memory block\n”,ptr);

strcpy(ptr, “rishabh”);

printf(“Now %s is in memory block\n”,ptr);

}

Output:

ankit is in memory block

ankit is in memory block

Now rishabh is in memory block