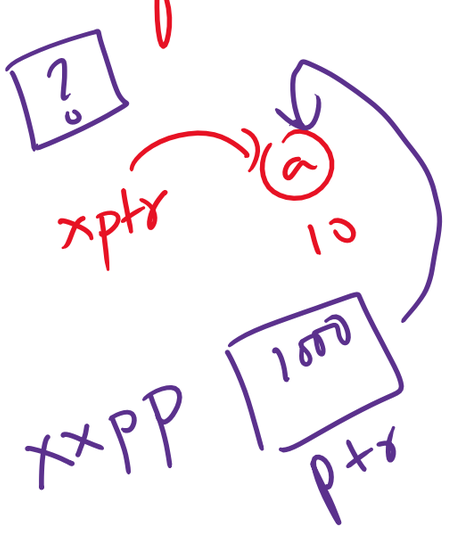
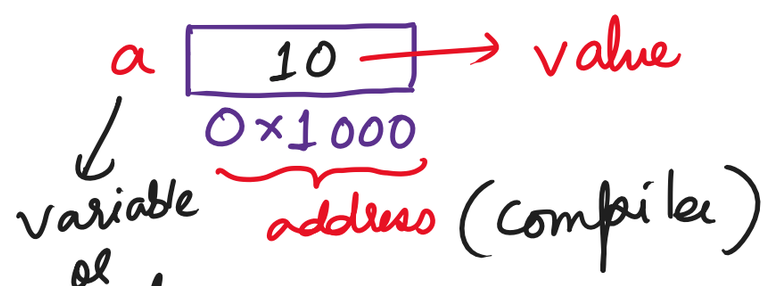
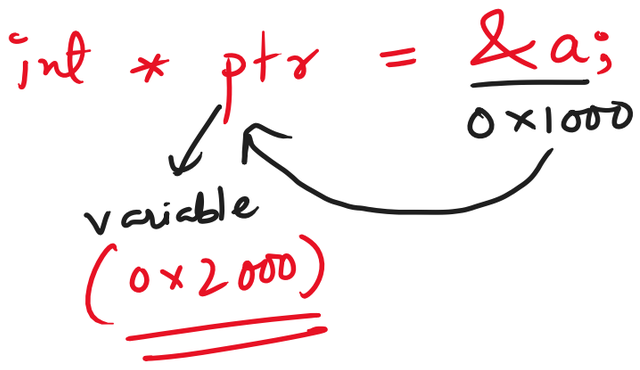
Pointers :→ It is a variable which stores the address/reference of another variable.



int a = 10;



(0×1000)
(&a)
↳ address operator.



int ** pp = &ptr;
(2000)

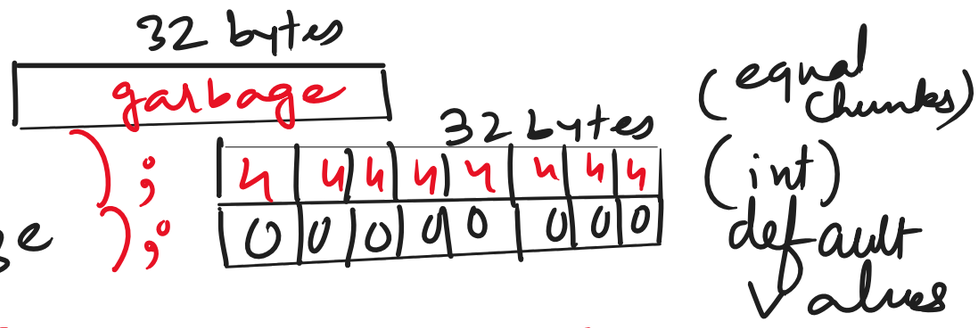
Dynamic Memory Allocation in C

Allocating memory to the user during runtime/execution time rather than predefining the size, so that the code is more efficient & we can save space/memory.

#include <stdlib.h>

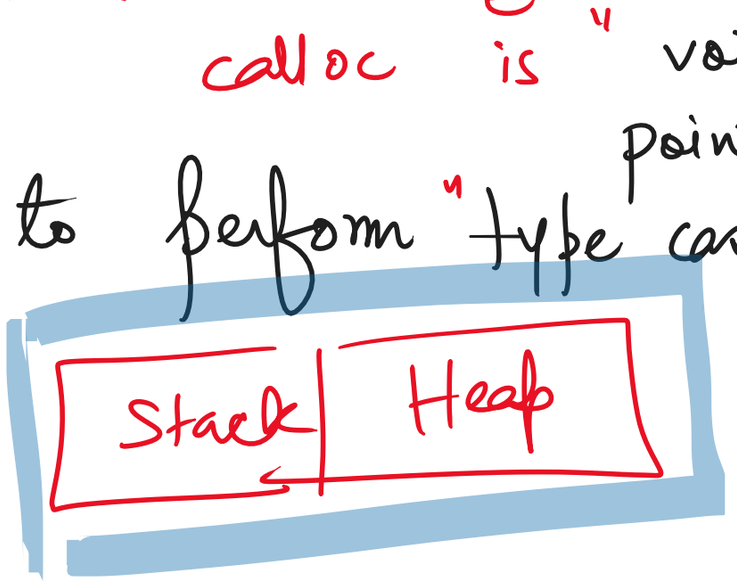
Pointers

i) malloc(size);
ii) calloc(n, size);
iii) realloc(ptr, new size);
iv) free(ptr);



Note: The return type of both malloc & calloc is "void pointer".

* Therefore, we need to perform "type casting".



C++
- new → allocating memory
- delete → deallocating memory

Java
- new (object Creation)
- All deallocation is done in Java by the compiler (JVM)