Pointers

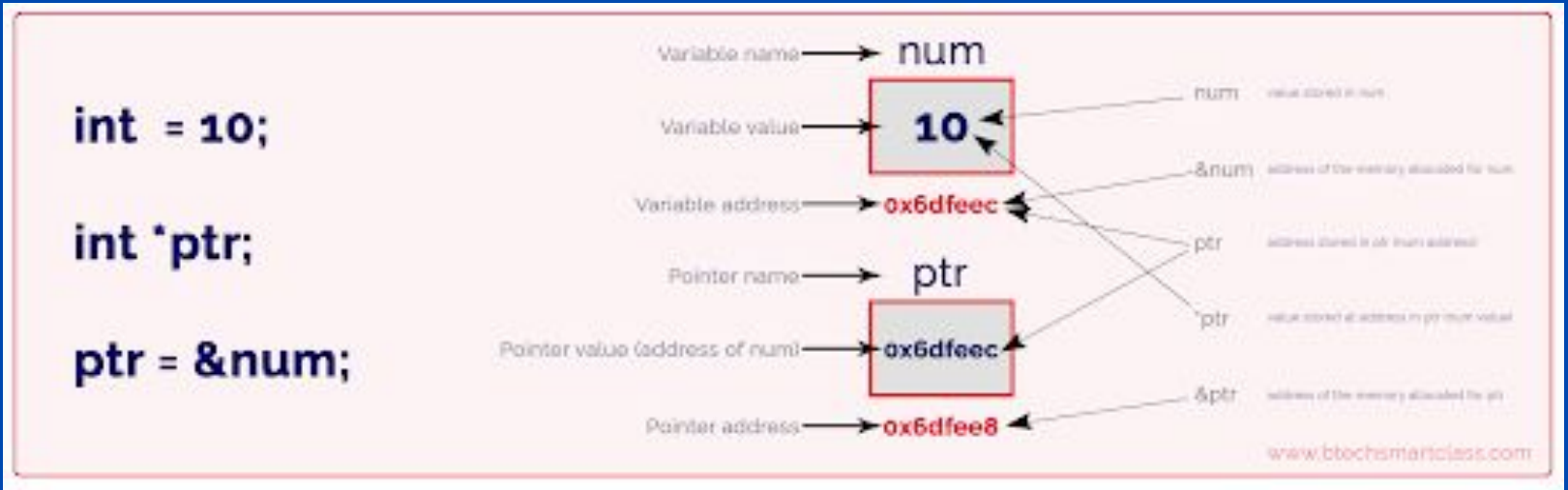
Session#6

Session’s Agenda

1. What is a Pointer?
2. Working With Pointers
3. Pointer Types
4. Memory Structure
5. New and Delete Keywords
6. Pointers and Function Arguments
7. Pointers and Arrays
8. Pointers and Arrays and Functions
9. Multidimensional arrays with pointers
10. Function Pointer
11. Memory Leaks

What is a Pointer?

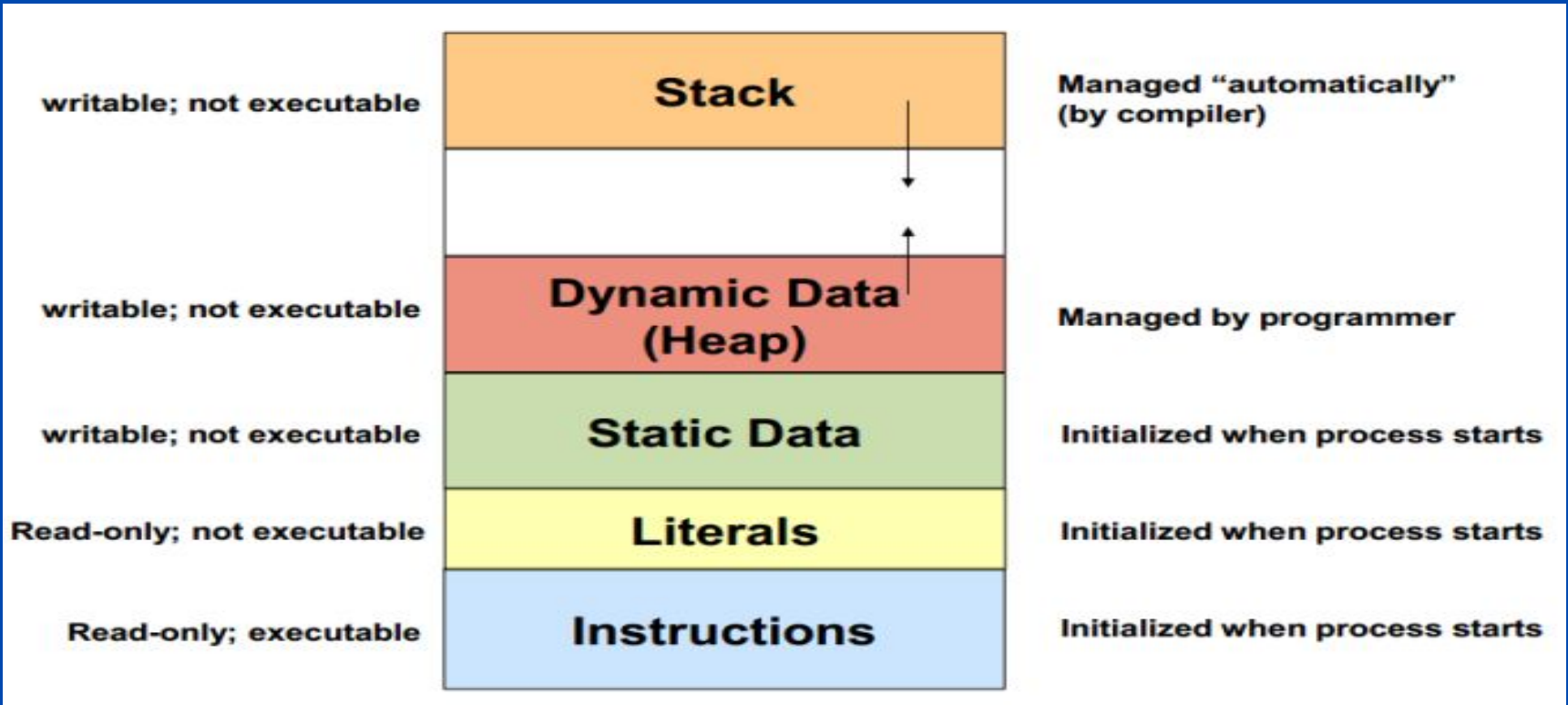
A pointer is a variable that stores the memory address of an object.



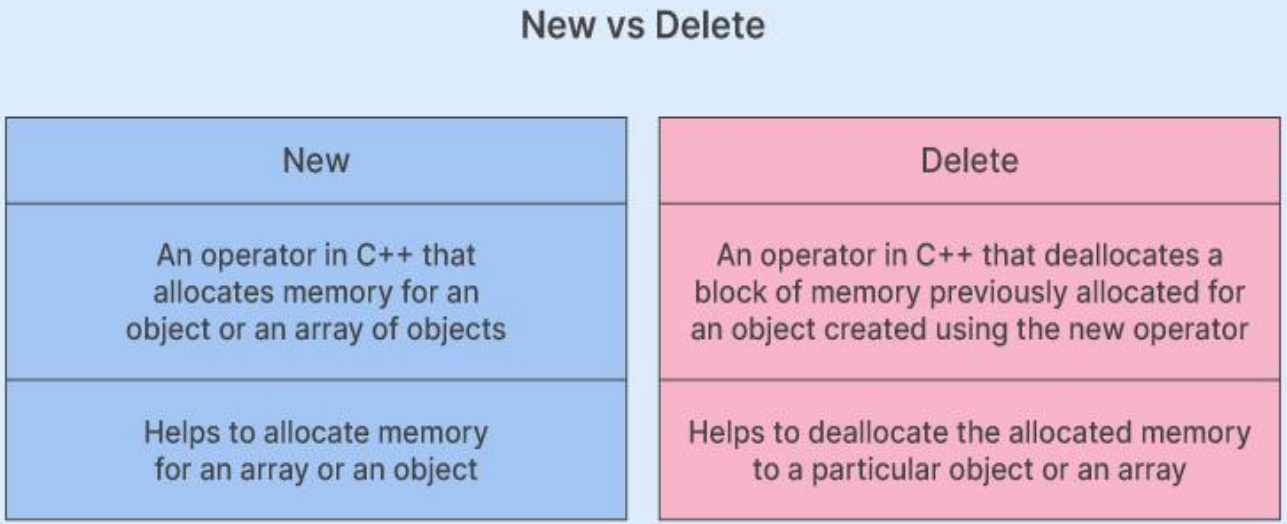
Pointer Types

1. Integer Pointers
2. Array Pointer
3. Structure Pointer
4. Double Pointers/Pointer to Pointer
5. NULL Pointer
6. Void Pointer/generic pointers
7. Constant Pointers
8. Pointer to Constant
9. Function Pointers

Memory Structure



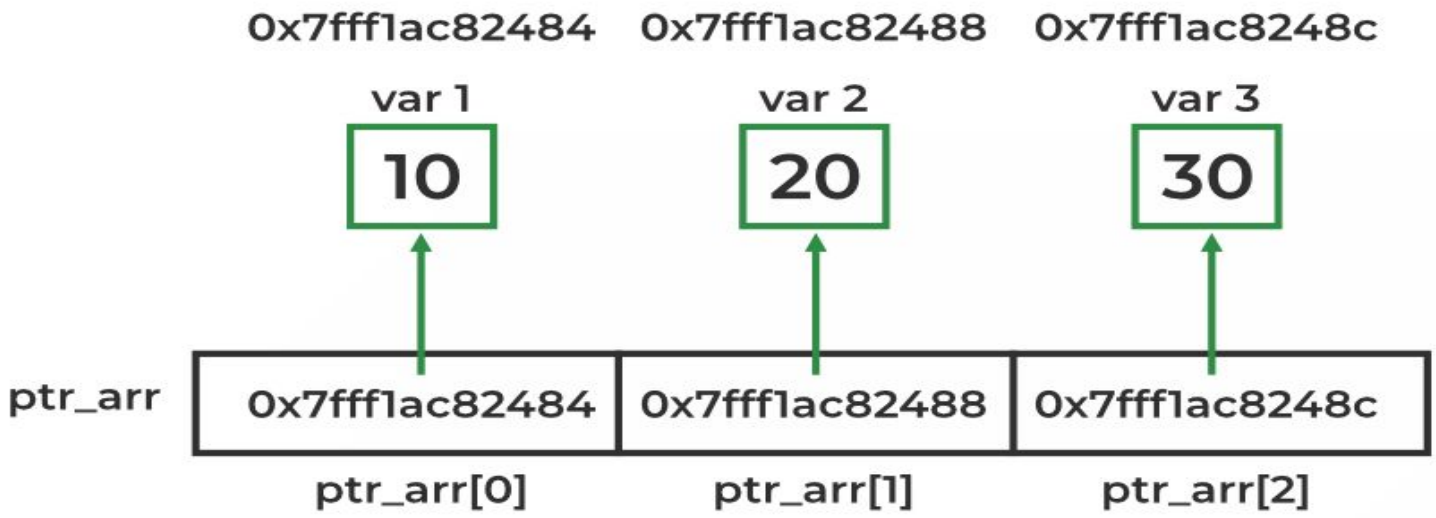
New and Delete Keywords



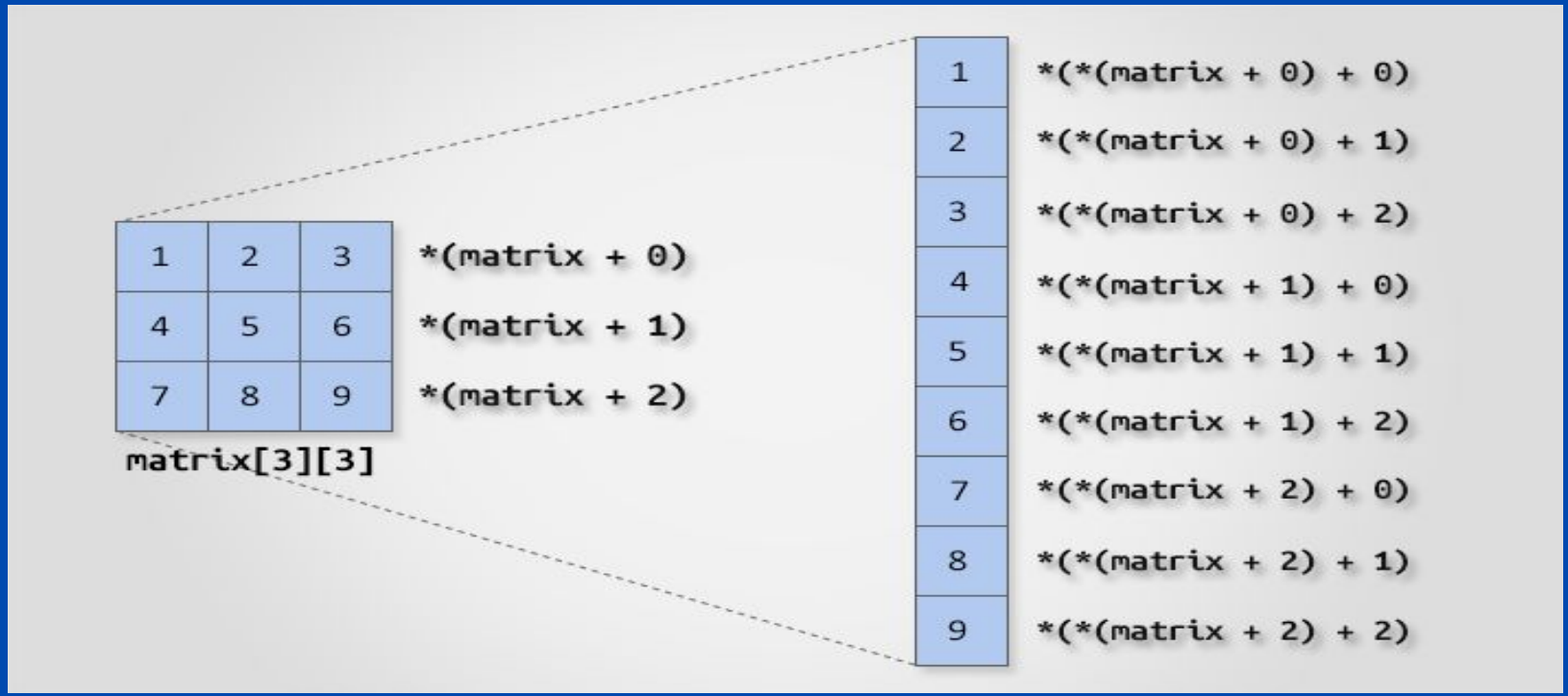
Pointers and Functions

A pointer can be used as an argument in function declaration. When a function with a pointer argument is called, the calling program will pass the address(not the value) of a variable to the argument.

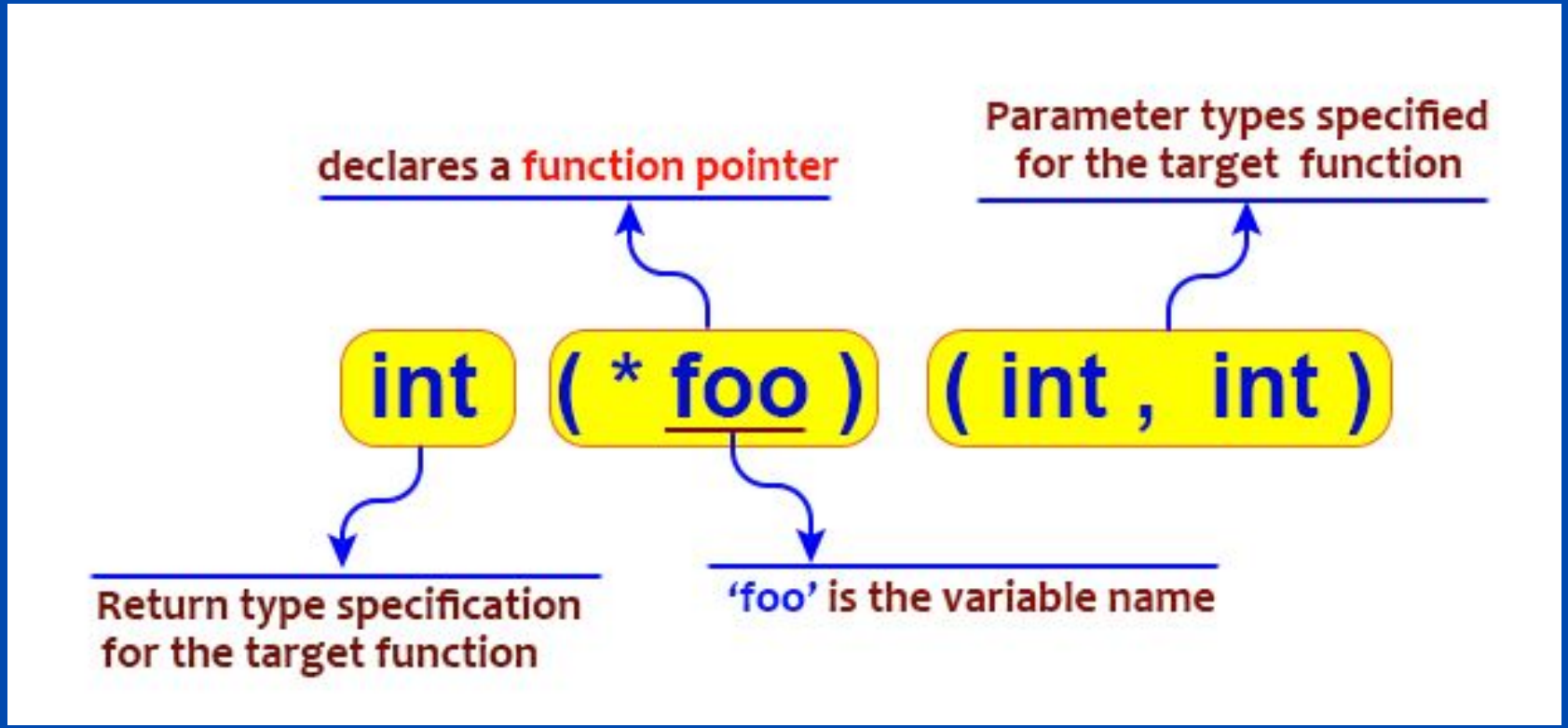
Pointers and Arrays



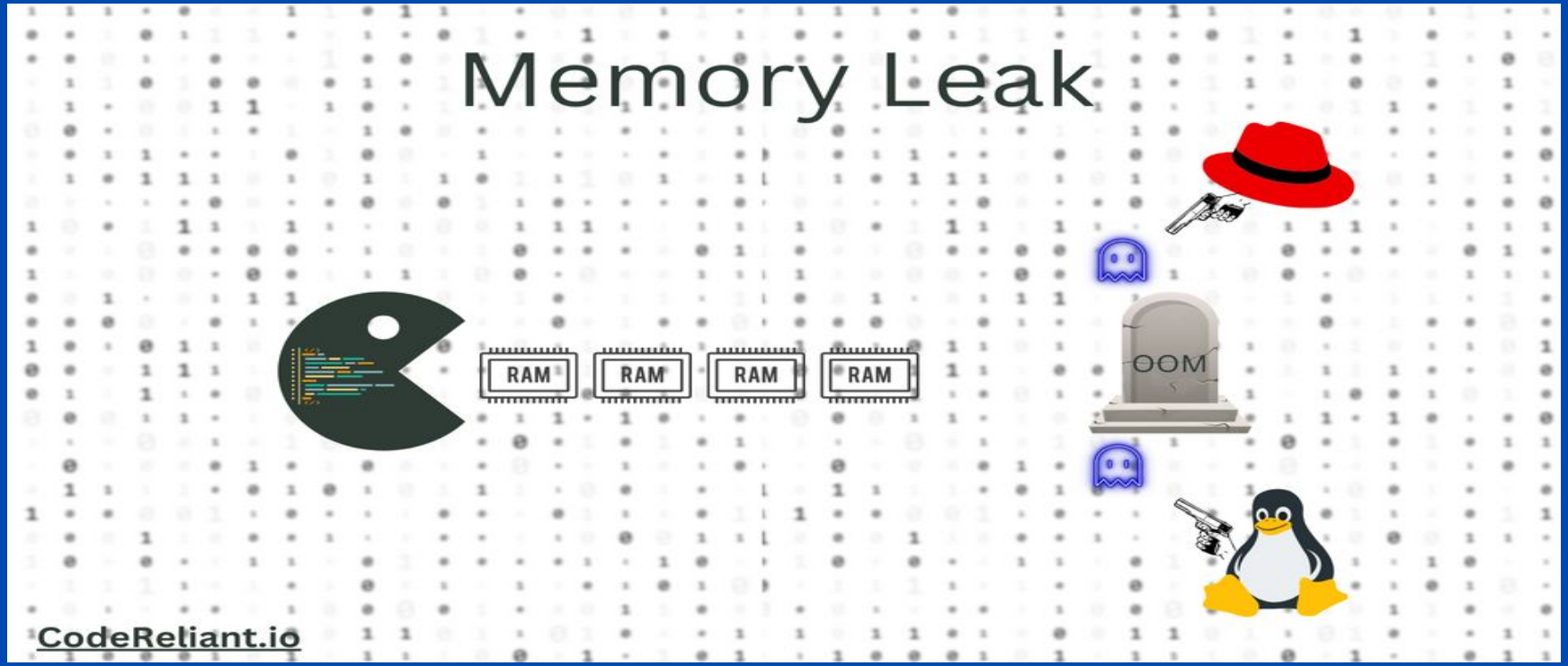
Multidimensional arrays with pointers



Function Pointer



Memory Leaks



More Reading

C Pointers

C Pointers 2

Malloc, calloc, free, realloc

Pointers To Pointers

Computer Memory

What is memory leak how can we avoid