Secure-Coding Assignment 1

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① What is responsible for allocating memory when we declare

ⓐ int a = 5   and   ⓑ int *ptr = new int   and how are they

stored. (Stack or Heap)

int a=5

ⓐ Whenever a variable is declared and initialized, it is said to be static memory allocation. and the memory is allocated in stack. This memory allocation is done by Operating System.

int *ptr = new int

ⓑ This type is known as dynamic memory allocation and hence it is allocated in Heap and ptr is container for address, size of ptr is said to be architecture of system. i.e, 32 bits in 32-bit architecture. Memory is again allocated by operating System.

ⓒ Memory allocation is always done by operating system because compiler is just a translator that translates human-readable or source cod in to machine level or object code.