

5/10/23

Notes

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⑨ → Why Pointer size was coming 8 while printing?

→ Pointer Architecture depends on platform
→ But today most platform including x86-64 architecture, pointers are 8 bit
most common for pc & server system

byte
[] → assign unique address

Pointer [] stores address

→ size determined by size of the memory addresses used by architecture

⇒ x86-64 architecture → extension of x86 architecture

↳ key feature supports → 2^{64} bytes of addressable memory

→ To enable this large address space
uses 64-bit memory address → which require 8 bytes of storage

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Other factors that can affect size of pointer →

① → Compiler may add padding or alignment bytes to ensure that pointer is aligned properly in memory

↳ It can increase size

② → Some platforms may support diff pointer sizes for diff types of data.

eg → function pointer v/s data pointer

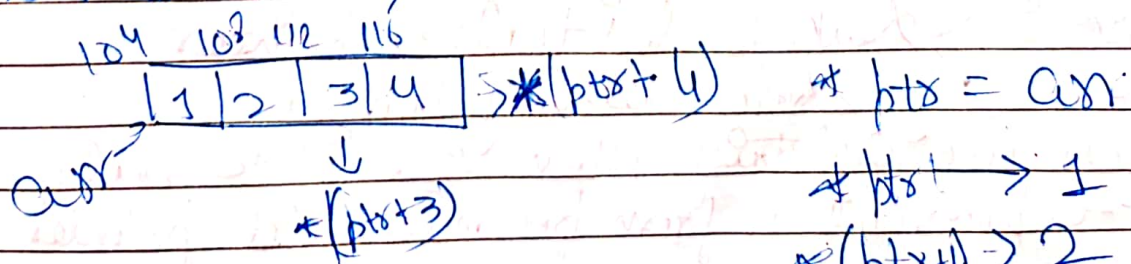
→ mainly depends on → target platform's Architecture
→ compiler implementation
→ memory organization

② → $arr = arr + 1$ in C++ → Wrong

→ Name of array is const pointer & that's why you cannot modify the address of first element by pointer arithmetic.

$arr = arr + 1$ → ✗

But can access other elements



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